

Terra Preta Farm:
A Porción of Edinburg

Discovering the Rio Grande Valley

Reports from the

Community Historical Archaeology Project with Schools Program

Report # 1

The Norquest Family: A Porción of Edinburg

Report # 2

The Cantu Family: A Porción of Edinburg

Report # 3

Atwood Acres: A Porción of Edinburg

Report # 4

The Eubanks Family: A Porción of Edinburg

Report # 5

Bair Farms: A Porción of Edinburg

Report # 6

The Rogiers Family: A Porción of Edinburg

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Report # 11

Terra Preta Farm: A Porción of Edinburg

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Terra Preta Farm: A Porción of Edinburg ---

A report prepared for:

The Greater Rio Grande Valley Community

and for UTRGV and the CHAPS Program class titled:

Discovering the Rio Grande Valley: The Natural and Cultural History of South Texas

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Dedication

This book is dedicated to all future urban, organic, sustainable farmers who will join the Raygoza family in years to come.

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Foreword

Agriculture, both as a social practice and economic driver, is a central pillar of the economy and geography of the Rio Grande Valley. It has been since the early 20th century, and God willing, it will continue to be for some time. Travelling around the region, one encounters countless reminders—physical representations—of the legacy and continued value of agriculture. Passing east along the old highway 83, from Starr to Cameron County, the road runs parallel to train tracks and passes old packing sheds that served local farmers for decades. Further south, along Military Highway, one finds their modern equivalents: diversified vegetable producers, integrated produce packing and distribution businesses, and state-of-the-art cold storage facilities.

This modern infrastructure distinguishes the RGV as one of the primary hubs for production and distribution of agricultural goods in Texas and the nation, while highlighting many of the sector's current challenges. Globalization of agricultural markets incentivized conventional farms and ranches to consolidate and industrialize, seeking economies of scale in production and operations to keep prices low and maintain competitiveness. This need for scale, however, has been confronted by loss of agricultural land in the region—according to the American Farmland Trust, the RGV faces among the highest risks for agricultural land loss to development in the nation. Increasingly volatile weather and persistent drought conditions have increased producers' financial risk and make water access and conservation a critical challenge. Additionally, the inherent risks of industry consolidation were borne out during the COVID-19 pandemic, as centralized supply chains failed and both producers and consumers were left searching for alternatives to these conventional systems.

Terra Preta Farm—among other small-scale farms in the RGV—represent one such alternative for RGV agriculture, focusing on sustainable production and local markets. Through a strong connection between the land, their family, and their local community, the Raygoza's work extremely hard to produce the highest quality fruits and vegetables using sustainable agricultural practices, primarily serving local consumers. They serve as one of the lynchpins of the fast-growing local food system, providing a marketing and distribution hub to connect new local growers with RGV communities that have few options for fresh and healthy fruits and vegetables.

By no means is this local model a full solution to the various challenges facing agriculture in the 21st century. RGV farms survive on thin margins, underwritten by the passion and commitment of their proprietors. But the example of Terra Preta is a cause for optimism and hope. It is an alternative path for farming's present and future in the Rio Grande Valley that re-prioritizes key elements of agriculture—people, place, and purpose—so often missing from modern life.

This study will serve as an invaluable record of the Raygozas' hard work and perseverance, but also of this moment in the life cycle of the local food system. In years to come, I hope people can look back and see an inflection point in the RGV, when people became more connected to their food and to those who produce it. On behalf of the UTRGV Center for Sustainable Agriculture and Rural Advancement, I would like to thank the students and faculty from the CHAPS program for capturing this essential piece of RGV history.

Colin M. Cain

Executive Director for Business and Rural Development, UTRGV

Co-Director, UTRGV Center for Sustainable Agriculture and Rural Development

Preface

More than a decade has passed since the Community Historical Archaeology Project with Schools [CHAPS] Program initiated the Farming Family Studies series as a focus of the course titled, “Discovering the Rio Grande Valley” to capture the stories of those who transformed Edinburg a century ago into a nexus for commercial agriculture and orchards. Now the children and grandchildren of those “founders” are retiring, dying, or foregoing life as a farmer and choosing other career paths. Many family farm properties have been sold and the acreage has been converted into neighborhood housing developments and strip malls through commercial real estate ventures. The first ten reports in this collection represent farming families that engage in commercial farming practices. While evidence of modernization has infiltrated our region, and regional farming families have dwindled, we struggled to continue this track.

In conversation with Ruby de la Garza, the UTRGV – USDA Hispanic Serving Institutes Regional Director and liaison, she suggested that we change course and study a new arrival to the region practicing urban, sustainable organic farming. She introduced us to Juan Raygoza, the Director of Special Programs for the USDA-sponsored Sustainable Agriculture and Rural Development (SARA) Project. In this capacity, he assists beginning farmers and ranchers at a demonstration site that is certified USDA-certified organic.

As with all farming family studies, UTRGV students have developed relationships with these farmers through the fieldwork conducted for this course. Additionally, through the oral history interview experience, these students not only gained a valuable skill set, it also provided them with the opportunity to get to know the family members by engaging in meaningful conversations. These students also benefitted from multidisciplinary fieldwork experiences led by a nature conservationist from the Texas Parks & Wildlife Department (natural survey of flora and fauna), a seasoned field archaeologist (material culture survey) and an expert in geomorphology and geological sciences (soil survey). It was during the archaeological survey that one of these students found lithic evidence that reaffirms the presence of prehistoric peoples on the Raygoza farm.

As we embarked upon this journey with Juan Raygoza, his wife Shakera, and their children Shakera (Little Shake), Kanani, and Andres, these students learned about urban, organic, and sustainable farming practices. Through hands-on experience at the Raygoza’s Terra Preta Farm properties, we successfully shifted gears from traditional, commercial, and multi-generational farming practices to learning about the need for maintaining farmland that was free of chemicals, thereby qualifying as an official organic farm through best practices put forth by the US Department of Agriculture’s National Organic Program and the US Environmental Protection Agency. More importantly, we learned about the operations of a local organic farm through the eyes of all members of the Raygoza family. We learned how they work together as a team through farmers’ markets, the development of newsletters and promotional materials, and their participation with groups such as Sentli, co-founded by Shakera Raygoza, whose focus is on “improving the quality of life” for their community through regenerative agriculture.

In this report, you will discover how a young family moved to the Rio Grande Valley of Texas in the 21st century and successfully built an organic farm from the ground up (pun intended!) into a thriving wholesale agricultural business. Discover how, through hard work, education, and dedication, they overcame challenges and became an integral part of the farming community in the Rio Grande Valley of Texas by making a positive impact on the community.

Roseann Bacha-Garza, Juan L. González, and Russell K. Skowronek
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UTRGV Community Historical Archaeology Project with Schools (CHAPS) Program

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Chapter 1 - Introduction

What is old is now new: “Family” Farms in the 21st Century

Stephanie de la Rosa, Christina Garza, Jackie Moran, Diego Rivera and Leonardo Rodriguez

The agriculture industry has seen numerous changes over the course of the last one hundred years. In the 1900s, the Rio Grande Valley of Texas saw an influx of people pursuing new lives and opportunities. Of the many who settled in this region, there were several families from various countries that were able to establish successful farms and ranches in the Rio Grande Valley (RGV) to help sustain their families and contribute to their communities and the larger agriculture industry. For generations, farming families would pass their farm and land to their children, who continued working the land. By the 21st century, the children of these generationally run family farms have opted out of the family business. As a result, many farmers seeking to retire have now found themselves selling their land. While there is a decrease in these types of family run farms, there is a considerable increase in corporate farms and a new generation of “family” farmers, who do not have a background in agriculture but are learning the essentials in transforming their newly acquired land into sustainable and organic farms. This study compares traditional commercial (multi-generational family) farming to organic and sustainable agriculture. The comparison of these two practices/approaches provides an analysis of the benefits and disadvantages of the types of family-owned farms in the Rio Grande Valley of South Texas.

The primary focus of this study is the Raygoza family and their organic farm *Terra Preta* which is located on East Rogers Road in Edinburg, Texas. The significance of organic farming in the Rio Grande Valley is one that has grown largely in the last few years. As reported by the USDA NASS, Texas has experienced a 97 percent increase in organic acreage from 2014 to 2019, with a total of 233 certified organic farms being reported in the state, which is a 31 percent increase from 2014¹. The Raygoza’s have become a part of a community that has seen many changes over the last few decades, all while contributing to the agricultural community and industry in the Rio Grande Valley. Many of these contributions were made possible, thanks to the programs in association with the University of Texas Rio Grande Valley (UTRGV). One of the programs, The Center for Sustainable Agriculture and Rural Advancement, or SARA, “seeks to leverage the intellectual and human capital of the University for the benefit of rural communities and farming communities in particular...sustainable farm, organic farms, small land-owning farms, largely Hispanic own farms in South Texas...primarily the Rio Grande Valley”². SARA

¹ Samuel Zapata, *Organic Agriculture In Texas*, Texas A&M Agrilife Extension, pgs. 1-8, 2022, <https://agrilife.org/samuelzapata/files/2022/01/organic-agriculture-in-texas-Final.pdf>.

² Cain, Colin, Oral History Interview by Stephanie de la Rosa, via Zoom, November 9, 2022, housed at the University of Texas Rio Grande Valley Special Collections and Archives.

assists small [land-owning] farmers by providing subsidy support until the farms are able to/can sustain themselves. It is through this community- engaged work that SARA brings opportunities for the faculty and students at the University. Juan Raygoza serves as SARA's Director of Special Programs and actively works within the RGV community to inspire interest in ways to regenerate our resources through organic farming practices.

Chapter 2 of this report chronicles the history of farming in the Rio Grande Valley and compares those to Juan Raygoza's organic farming practices. The chapter begins with the explanation of the birth of the "Magic Valley" and how it served as a double-edged sword to our communities' prosperity. There were some injustices that led to farmworker movements like Starr county's Onion Strike in 1966 and the Raymondville Onion strike in 1979. The Bracero program was created to try to structure a humane process of staffing labor. In this chapter, we compare multigenerational family farming that was common to most 20th century farms in the RGV to sustainable farming practices like the Raygoza's. Also found in Chapter 2 is the irrigation history of the RGV. A current overview of NAFTA's effect in the RGV regarding the economic output and political aspects that helped promote the incentive to diversify the RGV economy is included as well. The chapter concludes with an explanation of the USDA and related farming statistics over three eras: the 1840's, 1904, and 1950's.

Previous CHAPS Program studies are used to compare those farms to the sustainable farming practices of Juan Raygoza. The chain of title of previous landowners are uncovered and a close look at what a block of how the Texas Mexican Railway properties encompasses Terra Preta Farm. Google Earth images indicate that an ancient body of water existed on the Raygoza property. The chapter ends with a consideration of the labor history of the "Magic Valley" including the exploitation of farmworkers, industrial farming's ideologies of utilization of cheap labor to thrive, and the alternative solution that sustainable farming offers.

Chapter 3, Origins and Family Life, tells the story of the Raygoza family and their creation of a beautiful farm in Edinburg, Texas, Terra Preta Farm. *Terra Preta* is a Portuguese phrase meaning dark earth. Juan and Shakera Raygoza got their passion for farming in various ways. Shakera Raygoza is from Pensacola, Florida, and grew up in a military family that moved around a lot. She has lived in New York, Washington, South Korea, and Italy.³ Shakera grew up in Florida, where she graduated from nursing school to become a registered nurse. Both were exposed to agriculture through their family. Juan's family was a significant influence and offered great support. Juan has always been surrounded by farmers, agronomists, agricultural scientists, animal scientists, plant breeders, and professors. Juan's maternal family, the Castros, were highly involved in agricultural academics, farm life, and development. His parents are from Saltillo, Coahuila, Mexico.

³ Raygoza, Shakera, Oral History Interview by Christina Garza and Alexis Arizpe, October 28, 2022, Edinburg, Texas, housed at the University of Texas Rio Grande Valley Special Collections and Archives.

Juan's Uncle, Dr. Mario Castro-Gil, was a genetic scientist that studied corn and is known for creating the dwarf variety of corn. Juan's great grandfather, José Reyes Castro, was a professor, and agronomist. His family has a legacy at the University in Saltillo, Coahuila, Mexico, called Antonio Narro Agricultural University (UAAAN).⁴ Juan graduated from UAAAN in 2000. Juan and Shakera married in 2004 after connecting on spiritual and life goals. After marrying, they relocated to the RGV, where their children, Little Shakera, Kanani, and Andres, stay connected to nature.

In Chapter 4, organic/urban farming is discussed. We explore the different aspects of how a Certified Organic Farm operates. First, the different resources UTRGV offers to the farmers of the region are outlined. Next, is a discussion about the health benefits of organic food and an overview of the Organic Certification process from the USDA. In this section is a detailed description of the processes used by the Raygoza family's Terra Preta Farm which includes the challenges of running an organic farm. Finally, we conclude Chapter 4 by considering the economics of a certified organic farm. Topics include trade in organic farming, farm labor, and farmers' markets. Join us on this journey to discover the noble trade dynamics of agriculture.

As the world heals from the COVID virus, our class connects in different ways. Technology has expedited research, with Zoom meetings, shared digital documents and, of course, meetings in person. Students of the CHAPS Program at the UTRGV visited Raygoza's two organic properties and conducted archaeological, geological, and biological surveys, which identified artifacts, soils, flora, and fauna that were found on the property. We also went through extensive training with our professors. First, Dr. Russell Skowronek of the Anthropology department taught us the importance of documenting all artifacts found in our research. This included the of how to identify specific cherts, then archaeological discoveries in the Valley, in particular projectile points found on the properties in the past studies. Ms. Roseann Bacha- Gaza of the Anthropology department is the CHAPS (Community Historical Archaeology Project with Schools) Program Manager. She is the lead instructor and guided us through the process of putting together our guidelines and organization of our documentation. She also gave a lecture of the history of the Rio Grande Valley starting in the Spanish *porciones* (land grants) and into the modern era we live in now. She also showed us how to search for land titles using the Hidalgo County property search courthouse website. She also provided a training lecture about how to conduct oral history interviews. We learned about the process of how transcriptions are done, from the first draft with double spacing to finalizing the transcription with the approval of the person that was interviewed. She also demonstrated the paperwork, how to collect all the necessary paperwork and how to file it. Ms. Bacha-Garza is our main source

⁴ Raygoza Amozurrita, Juan Manuel & Mireya Castro de Raygoza, Oral History Interview by Diego Rivera and Karen Villarreal, November 2, 2022, via phone at Raygoza home in Saltillo, Mexico, housed at the University of Texas Rio Grande Valley Special Collections and Archives.

in and outside of class. Dr. Juan Gonzalez, professor of Geology and Director of the School of Earth, Environmental, and Marine Sciences. He presented information on the Valley and its geological history. He introduced the concept of deflation trough which provided evidence needed to indicate the possibility of prehistoric human occupation near valuable water sources, along with archaeological findings. While we dug up soil samples, he provided lessons that taught us how to document the evidence-based data into our report. Ms. Becky Reyes, who specializes with nature in our scenic wetlands, focused on Biology in the Rio Grande Valley. She lectured on the types of native plants and animals that reside in our area along with invasive and exotic plants that exist on the farm and were brought from outside the RGV. She also provided a class lecture on Ecotourism in the area and how the border wall has affected it.

Our class chose this opportunity to learn more about our rural community. These instructors showed our team the path we need to follow to accomplish this goal and the Raygoza family welcomed us with open arms to their farm to learn more about organic and sustainable agriculture. With all this support, our class has written this report that includes all the information we have collected from our field research on the Raygoza family farm, tours to regional certified organic packing sheds, and a vast array of oral history interviews. We hope you enjoy reading this report as much as we have loved writing it.

Chapter 2: History and Farming Origins of the Rio Grande Valley

Leonardo Rodriguez, Hector Rodriguez, Christopher Covarrubias, Eduardo Hernandez,
Isaiah Casas, Kate Purdum, and Bruno Francisco Rosales Cleris

History of the Rio Grande Valley Farming Initiation

Before the Rio Grande Valley became filled with rental properties, big chain discount retailers, and car washes, the RGV was known as an agriculture paradise with citrus orchards and fields of crops. In fact, the RGV community still embraces its stigmatized alias that it was dubbed over one hundred years ago as the “Magic Valley.” The Magic Valley was a place myth created by marketing land developers and boosters who found an opportunity to make profit from the local land resources by inviting potential buyers to take a risk where modernity was allegedly booming¹. The one person who is credited in the early 20th century with most of the place-marketing in the Rio Grande Valley was John Shary, a land developer from Nebraska who arrived in South Texas in 1912. John Shary used controversial images that depicted a different reality in the Rio Grande Valley that did not align with the term magical. The pamphlets had a purpose to invite Anglo farmers to exploit Mexican labor from the local community. In figure 2.1, we see a place image that was circulated in 1931 to promote the Rio Grande Valley’s good life and prosperous community. In the pamphlet, we see the visual imagery of privileged folks vacationing at the beach, playing polo, golfing, fishing, tennis, and hunting, and it is all centered around the Missouri Pacific Lines logo that added their own perspective to the “Magic Valley.” The Missouri Pacific Lines designed a pamphlet that boasted the Rio Grande Valley’s ability to grow crops twelve months out of the year. The pamphlets were romanticizing the exploitation of Mexican peoples as laborers while normalizing the othering of them into a second-class citizenship status and comparing them to the black communities throughout the south for their poor living conditions.²

From 1920 to 1930, when not everybody was literate, images were a better source of ensuring audiences were reached. Figure 2.2, we see the 1914 cover to John Shary’s book, *The Treasure Land of the Lower Rio Grande: Where Nature’s Smile are Brightest*. This book further cemented the Magic Valley myths. Figures 2.3, 2.4, and 5.5 are examples of other visual images used to create the Magic Valley myth that enticed many farmers from outside of the Rio Grande Valley. Figure 2.3 depicts what the Missouri Pacific Lines promised would be found in the RGV such as Anglo farmers relaxing on their patios while the Mexicans did the labor. In figure 2.4, we see the reference to the RGV being a paradise that produces the world’s sweetest citrus fruits. Not all the place images were of John Shary’s work. Figure 2.5 is Wildred Stedman’s map of the Rio Grande Valley in 1928. That

¹ Brannstrom, Christian, and Matthew Neuman. “Inventing the ‘Magic Valley’ of South Texas, 1905-1941.” *Geographical Review* 99, no. 2 (2009): p. 123

² Ibid, p. 130

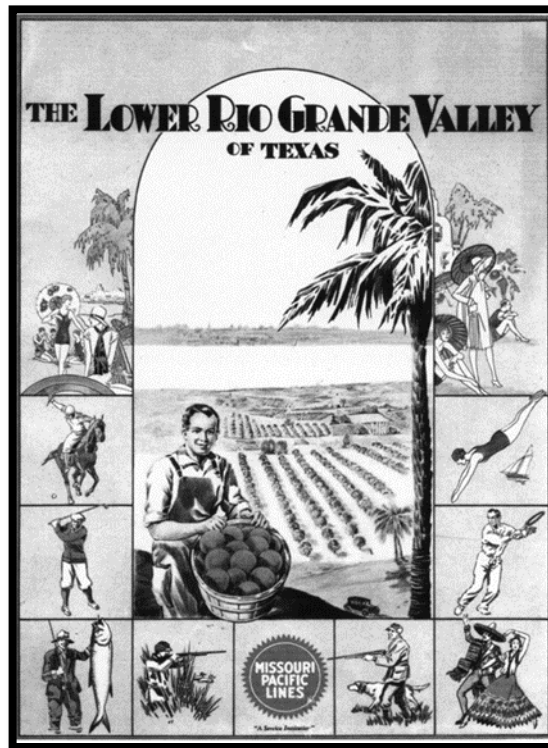


Figure 2.1 “A promotional pamphlet cover in 1931 that depicted images of a prosperous life in the RGV”

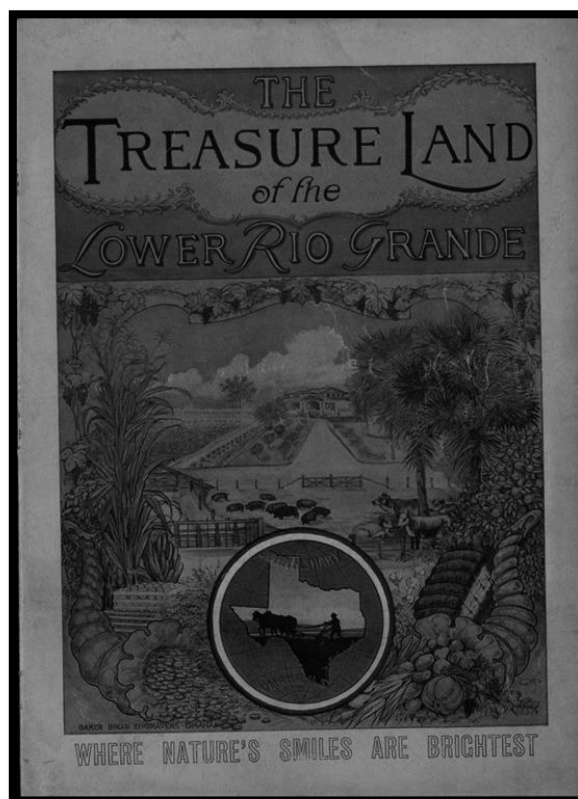


Figure 2.2 A cover of John Shary's 1914 “The Treasure Land of the Lower Rio Grande: Where Nature's Smile Are Brightest” was intended to cement the Magic Valley place myths.



Figure 2.3 Cartoon that depicts the RGV farm owner relaxing under his patio shade while the Mexican farmworkers are doing all the work in the sun.

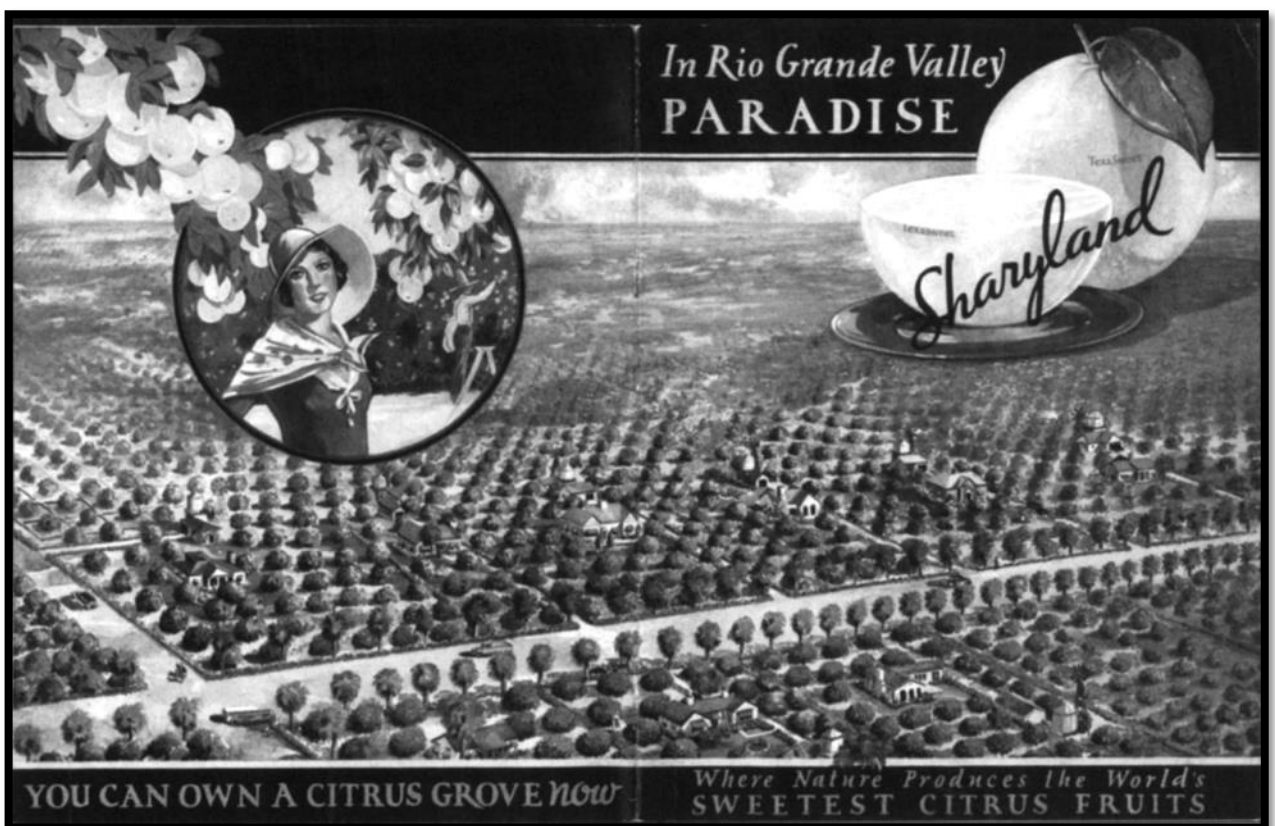


Figure 2.4 The cover of a Sharyland marketing brochure from 1932. University of Texas-Austin, Center for American History.

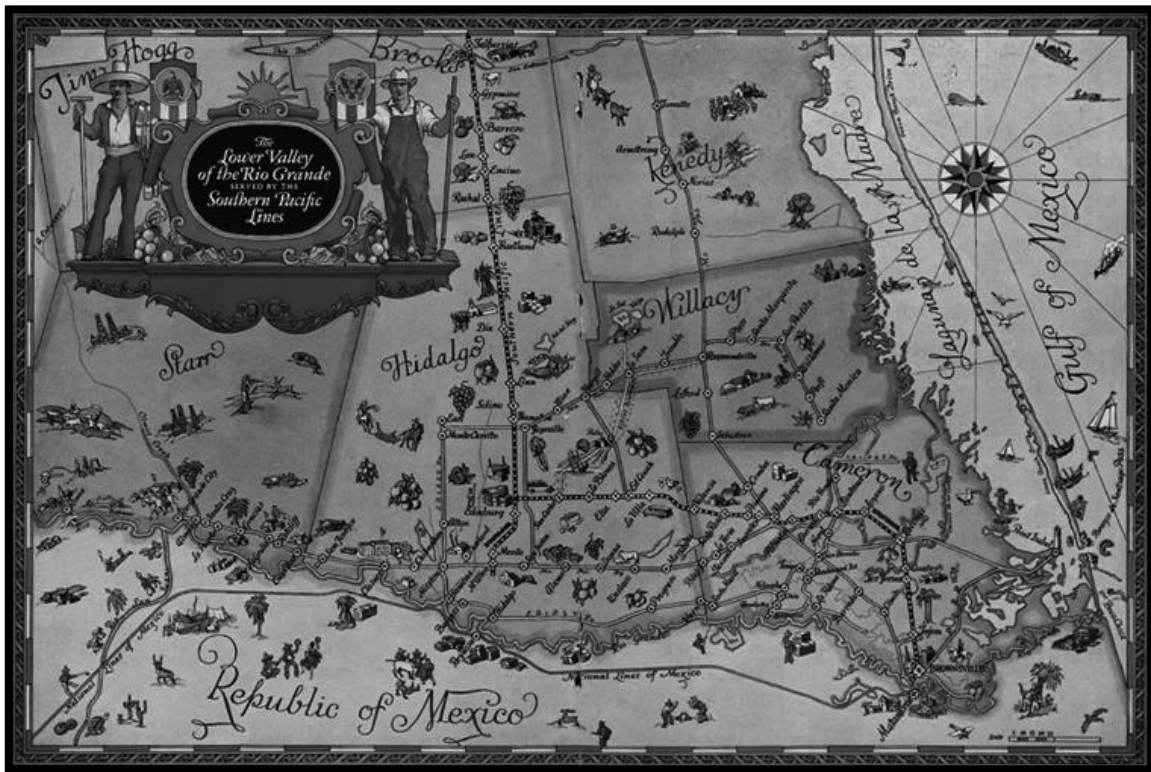


Figure 2.5 Map of the RGV by Wildred Stedman found in *A Little Journey Through the Lower Valley of the Rio Grande: The Magic Valley of Texas* by Julia Montgomery.

map depicts what was to be internalized by those who had not visited the RGV, modern irrigation practices on the United States' side of the Rio Grande and culturally inferior practices on the Mexican side of the border like cock fighting.

The image in figure 2.6 shows the Mexican farmworkers who were marketed as “cheap and plentiful” by the Missouri Pacific Lines for the world to take advantage as promoted to new potential landowners by developers such as John Shary.

Injustices to farmworkers also occurred in California. The movements to stop the exploitation of the Mexican farmworkers reached the Rio Grande Valley by the last quarter of the 20th century. Antonio Orendain was a co-founder of the United Farm Workers Union alongside civil rights leader Cesar Chavez in 1962. Later Orendain formed his own organization, the Texas Farm Workers Union in 1975 to better serve the farmworkers of Rio Grande Valley community. In 2009 when he received recognition for his marches for farmworkers rights, he questioned the meaning behind the recognition if the exploitation continues.³ The South Texas farmworkers of the 21st century still fall victim to injustices due to the lack of laws protecting them.

³ Nick Pipitone, *South Texas Labor Leader Honored, at Last*. The Monitor 10/23/2009



Figure 2.6 Postcard from 1928 that reads, Mexican Labor, Cheap and plentiful.
 University of Texas-Austin, Center for American History

Bracero Program

The Bracero program was implemented in 1942 to offset the labor from the missing farmworkers who left the country during World War II. The program was created as an accord between the US and Mexico due to the unfair working and living conditions the Mexican population experienced as a result of a similar deal between the two countries during the first world war. Due to labor shortages during World War I, Mexicans were allowed to work in the US but both countries left the governing of the farmworkers to the farm owners. This caused an influx of issues like unfair wages and inhumane hospitality towards the Mexican laborers. The Bracero program promised to end such injustices, but Texas farmers did not favor the farmworker rights that guaranteed fair wages and fair living conditions.⁴ The Mexican government, fully aware of the racial discrimination against Mexicans in Texas, did not allow the Bracero program to be implemented in Texas unless they could guarantee the Mexican laborer an adequate working environment and proper treatment. Almost two years after its enactment, the Bracero program was implemented in Texas in late 1943. By 1961, out of the 291,420 Braceros who entered the United States,

⁴ Scruggs, Otey M. "Texas and the Bracero Program, 1942-1947." *Pacific Historical Review* 32, no. 3 (1963): p. 252

117,368 of them went to Texas.⁵ The program ended in 1964 due to the spread of mechanization across the nation. Conventional farmers benefited from the speed of production that automated operated machines offered for agriculture (Figure 2.6).

Correcting Labor Expectations in Agriculture

As part of this study, Juan Raygoza was interviewed regarding his knowledge of any current issues specific to agriculture in the Rio Grande Valley. He said the struggle to find labor is difficult because no one wants to work on farms anymore due to its harsh working conditions. Juan Raygoza's response below is to my question of whether there is a solution to the lack of labor caused by the stigma of the injustices our communities ancestors faced during the agricultural boom.

Leonardo Rodriguez: Is there a solution to that issue? Do you think there's a solution to it?

Juan Raygoza: Um, yeah. Um, it's a surreal solution. I don't think it's going to happen, but it would have to be a dramatic change at very high levels and change the whole production system. You know, it is not going to happen. But yeah, there is a solution. We would have to really focus on taking care of our water, our soil, and of course the people in the first place, if the vision was to make sure our communities in the country were getting well fed with good nutrition, have access to clean water and air we would have a healthier society. If the government would put more effort into that area and subsidize organic farming to reduce pollution, then we could pay more and start making agriculture more appealing to the youth. Currently in the US what is being subsidized are Mono crops such as corn, soy, cotton, wheat, rice and sorghum and these crops use a lot of chemical herbicides, fungicides, pesticides etc. And so, you see they are not putting the air, the water, and the health of the people first. They are putting profits first and so if we switch that, then that will be a solution, and it will be a very good solution because we will see better health, we will start seeing a decrease in disease. Just by eating less chemicals and the air and water being cleaner. ⁶

Juan Raygoza is asking for a cultural mindset shift. He understands that we live in a capitalist society and for-profit ideologies that will always trump every other priority, including the health of our people. Juan states that with a cultural shift, where the nation starts paying attention to what they eat, the nation's population will realize the truth behind food production before it reaches the supermarket. If Juan's statements are correct, it means

⁵ Ibid, p. 251

⁶ Raygoza, Juan, Oral History Interview by Leonardo Rodriguez, at the Terra Preta Farm, Edinburg, Texas, October 29, 2022, housed at the University of Texas Rio Grande Valley Special Collections and Archives.

that we all play a role in the exploitation that comes through farm work due to our culture's lack of empathy with how our food is produced. The national cultural shift that Juan is requesting goes beyond government implemented policies and regulations. The "surreal solution" that Juan visualizes is a country where its people start taking care of each other and naturally, the solution appears. We take care of our people by providing clean resources of water, land, and food. With clean water, land, and food free of chemicals, disease rates like diabetes and cancer will drop. As a result of nurturing humanity, issues like unfair working conditions and unfair wages will decline. The sustainable agriculture practices that Juan implements into his farming already proves this.

Culture &. Sustainable Agriculture

Culture dictates every aspect of life. This includes the choice of food. That choice may be dictated by economics even when some foods are known to be unhealthy. Culture also affects those who grow our food. Why some farmers choose to farm sustainably and organically is an important question. Some want to give back to their community by growing healthy, natural produce. Others want to help educate the public in the types of food they buy. Farmers may be thinking about their children and their future. Juan Raygoza decided that he would go into farming natural produce after his daughter Shakera was born. He believed that his daughter needed something safe and natural to eat after seeing how produce is dowsed in chemicals, including pesticides and hormones.

Sustainable agriculture is the practice of safe, natural, farming of produce. Sustainable farming does not use pesticides and other harmful chemicals on the crops. It is also practiced in ways in which it keeps the soil and the atmosphere clean, with the future and its generations in mind.

Because sustainable agriculture relies on the ecosystem it leaves less of a mark on the landscape as well as the landscape surrounding it. It utilizes a more holistic approach, by using natural materials and the crops themselves to support one another. For example, the Three Sisters' technique of intercropping corn, beans, and squash generates social, economic, and environmental benefits. Family-owned farms help to generate jobs vertically, beginning with the actual farm workers to the employees in produce stores. Flea markets and farmers markets are two of the biggest ways that community members and farmers can come together to help one another. By buying locally consumers help support small farmers. These farmers provide their communities with healthy food and beneficial knowledge. Juan Raygoza and his family are partnered with the city of Edinburg and are often found at local farmers markets such as the one in Fireman's Park in McAllen. Through Juan's hands-on experience, he has learned how to help guide others who are curious about the field of agriculture.

Generational Farming

Generational farming is exactly what its name implies, multiple generations that gain valuable hands-on experience by working on their family farms. Parents pass the responsibility of the family farm down to their children while the parents are still alive, and able to help with decisions on the farm. Once the older generation dies, it is up to the next generation to decide whether the farm will stay in business. Generally, a family-owned farm will not survive past the third generation. It is becoming less and less common for third and fourth generations to hold on to their family's land. The trend of new families entering the agriculture business is also low. According to the USDA, only 22 percent of the nation's farms were run by new farmers.⁷ The percentage of those who have bought farmland from other family members or was gifted the land is still a greater trend than those who start from scratch. Many larger agricultural farms have survived for decades through the use of groups of agricultural workers (Figure 2.7).



Figure 2.7 Onion pickers in Raymondville; families like this one are the common groups of agricultural workers that have used for decades by large agricultural growers

<https://utrgv.libguides.com/SCA/farmers>)

Conventional Farming

Conventional farming has a higher crop yield and can produce a crop much faster than that of sustainable farming, but there is no conservation of the land. The goal for conventional farming is much more business oriented. It focuses on the speed and quantity of crops being produced and shipped to consumers. Conventional farming is the opposite of

⁷ U.S. Department of Agriculture, Mary Ahearn, "Beginning Farmers and Ranchers at a Glance" accessed November 21, 2022, <https://www.usda.gov/media/blog/2013/01/30/beginning-farmers-and-ranchers-glance>

sustainable farming. Chemicals are used to ensure that crops are ripened and harvested on time with little loss. Details of farming practices differ greatly. Sustainable farmers study how plants grow best in which environments. Intercropping is used to their advantage to plant multiple different crops on a piece of land. Native Americans had perfected this through the technique called the Three Sisters, where maize, beans and squash are planted all together and feed off one another's nutrient outputs.⁸ Conventional farming, however, only accommodates one crop at a time through monocropping. Much time and money is spent on making sure fertilizers, pesticides, and hormones are applied to the crop in order to protect it from the pests as well as the elements.

Irrigation in the Lower Rio Grande Valley

Farming is essential to human survival. Without it, civilization would not be sustained. The United States has a clear history of not only farming food products but of cash crops such as cotton and tobacco. We can see that the agrarian-led lifestyle throughout US history grew especially in the south which required a high demand for labor. Unfortunately, the institution of slavery grew out of a desire for high profits. With that formula, farmers grew at exponential rates.

The Rio Grande/Bravo "is the fifth largest river in North America and the longest river border between two countries in the world."⁹ The Rio Grande is the heart of the Valley. But Texas has always been a cruel and difficult land to tame. Just as Stephen F. Austin received permission through the *Empresario* system to convince 300 families to relocate to Texas between the Brazos and Colorado rivers, in the 1820s much of the land near the Rio Grande was granted to Spanish colonial settlers by the Spanish Royal commission in the mid-1700s. "Private land grants in what is now South Texas did not begin until the mid-eighteenth century"¹⁰ Due to the fact that the Spanish royal commission sent out "the commissioners, Juan Armando de Palacio and José de Ossorio y Llamas"¹¹ to survey the land to administer land grants to individuals and get a record of the transaction. "Due to the shortage of water and the importance of irrigation for agriculture in the region, the commissioners surveyed long, thin strips of land, each with narrow frontage on a water course. These elongated quadrangles were known as *porciones*"¹² (Figure 2.8). Settlers purchased the land at high prices due to the value of water which allowed the early settlers in the RGV to maintain their livelihoods through ranching and cattle grazing.

⁸ *Thoughtco.com*, K. Kris Hirst, "The Three Sisters: the Traditional Intercropping Agricultural Method", Accessed November 20, 2022, <https://www.thoughtco.com/three-sisters-american-farming-173034>

⁹ Stubbs, Megan J., M. Edward Rister, Ronald D. Lacewell, John R. Ellis, and Robinson John R C. "Chapter 1: Background." Essay. In *Evolution of Irrigation Districts and Operating Institutions: Texas, Lower Rio Grande Valley*, 8–8. Texas Water Resources Institute, The Texas A & M University System, 2003. Pg 1.

¹⁰ Lang, Aldon S., and Christopher Long. "Land Grants." *TSHA*, 2016, <https://www.tshaonline.org/handbook/entries/land-grants>.

¹¹ Ibid.

¹² Lang and Long.

The Lower Rio Grande Valley (LRGV), known as the “Magic Valley,” was highly promoted at the beginning of the 20th century as a booming agricultural location. However, this was not the case in the previous century as the LRGV was known as a ranchland thick with thorn scrub. This changed when agriculture-led the clearing of the vegetation. This was all thanks to the introduction of the railroad in the LRGV in 1904. The population in the LRGV “increased from 85,861 in 1920 to 176,452 in 1930.”¹³ The success of those farmers led to the clearing of more vegetation in order to open up more acreage for farmland.

One individual who took part in creating an irrigation system was John Closner who “created one of the first irrigation networks in the Rio Grande Valley during 1895 to irrigate his sugar plantations.”¹⁴ Although his irrigation system failed due to financial problems, his irrigation system inspired many land developers and irrigation companies to come to the Rio Grande Valley. This sparked competition when “in the 1890s, land developers began digging irrigation canals and removing brush vegetation, thereby transforming the landscape into an “agriculture oasis.””¹⁵ As the railroad came to the RGV, its development grew. “Many of the smaller towns occupying the Valley today were established in the same year the railroad reached that area, including Raymondville, Harlingen, San Benito, Weslaco, and McAllen. As the railroad moved south, people followed, and where people went, water companies and developers followed.”¹⁶ There was an abundant amount of private irrigation companies. “Major development companies were formed and owned by only a few people: Uriah Lott, Leonidas C. Hill, Sr., John McAllen, John J. Young, Ed C. Couch, Dan R. Couch, R. C. Couch, R. L. Reeves, and W. E. Stewart. These entrepreneurs were interested in developing land through farming rather than in traditional Hispanic ranching.”¹⁷ They were the builders who started to develop many of the cities in the RGV specifically along the railroad system. We have the city of McAllen stemming from John McAllen as well as the city of Weslaco whose “land was sold to the W. E. Stewart Land Company, hence the name W.E.S.La.Co.”¹⁸ Up until the beginning of the Great Depression in the 1920s, due to financial hardships, land development companies were placed into the market. All private companies were bought out by the end of WWII. The farmers of the Rio Grande Valley “organized irrigation districts (IDs) and bought out the developers in order to insure future water supplies.”¹⁹

The introduction of the railroad in 1904 brought many advancements in the irrigation system in the Valley. The building of the St. Louis, Brownsville, and Mexico Railroad (STLBM) attracted more people to settle into the Valley (Figure 2.9). The increase in population brought the need for better infrastructure. One such example would be “the

¹³ Brush, T. (2018, August 21). *Nesting Birds of a tropical frontier*. Texas A&M University Press. Retrieved November 2022, from <https://www.tamupress.com/book/9781585444908/nesting-birds-of-a-tropical-frontier/> pg 27.

¹⁴ Stubbs, Megan J., et al. p. 8.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid, p. 9.

¹⁸ Ibid.

¹⁹ Ibid, p. 8.

construction of the Falcon Dam in the early 1950s. [This structure] greatly reduced the frequency of flooding and allowed more land to be [irrigated and put into] agriculture[al] production.”²⁰ Although it did allow for more agricultural land to be established, it deeply affected the wildlife in the area. Its construction did affect the Valleys' international and national terrain as the US and Mexico were both striving to prevent the flooding of the Rio Grande/Bravo which “overflowed 23 times between 1900 and 1939, specifically with hurricanes hitting the area in 1910, 1913, and 1933.”²¹

Water rights were a huge issue, however, in the beginning, as “specific, landowners within Texas assumed that Spanish land grants also held riparian water rights, which allows landowners adjacent to surface water rights to that water.”²² This would later cause problems when the Falcon dam was constructed. As we transition to the dual system where the landowners who acquired their property after 1895 no longer held riparian rights therefore, they “required surface-water users to file an affidavit with the County Clerk where they intended to divert water. These affidavits were called “certified filings” and were on a first -come-first -served basis. Those individuals who filed claims first held the first rights to available water.”²³ The system was not perfect, and it would be abused by people that found loopholes. But with the construction of Falcon Dam, there were many issues when looking at water rights as they investigated how farmers and irrigation companies could not be allowed to continue having riparian rights as the water was a finite valuable resource, especially for Texas farmers in the LRGV. As a result, Texas “stripped Spanish land grant holders of their riparian water rights, leading to the change from a dual system to that of State licensing.”²⁴ Texas has continued to use the State licensing of water ever since they got rid of the Dual system from the ruling of State v. Valmont Plantations in 1961.

In conclusion, Texas agriculture was heavily dependent on the Rio Grande/Bravo and as the railroad developed in the LRGV at a time when the population and infrastructure developed rapidly. All of these advancements were thanks to the Valley’s agricultural sector.²⁵ With the growing population and infrastructure, the need for regulation grew as the issue of water became an international issue as Mexico and Texas joined hands to fix water consumption on both sides of the border.

²⁰ Brush, p. 28.

²¹ Stubbs, p. 10

²² Ibid, p.13

²³ Stubbs, p.13

²⁴ Ibid., p. 14.

²⁵ Note: the Rio Grande Valley and/or the Lower Rio Grande Valley is often referred to regionally as the “Valley.”

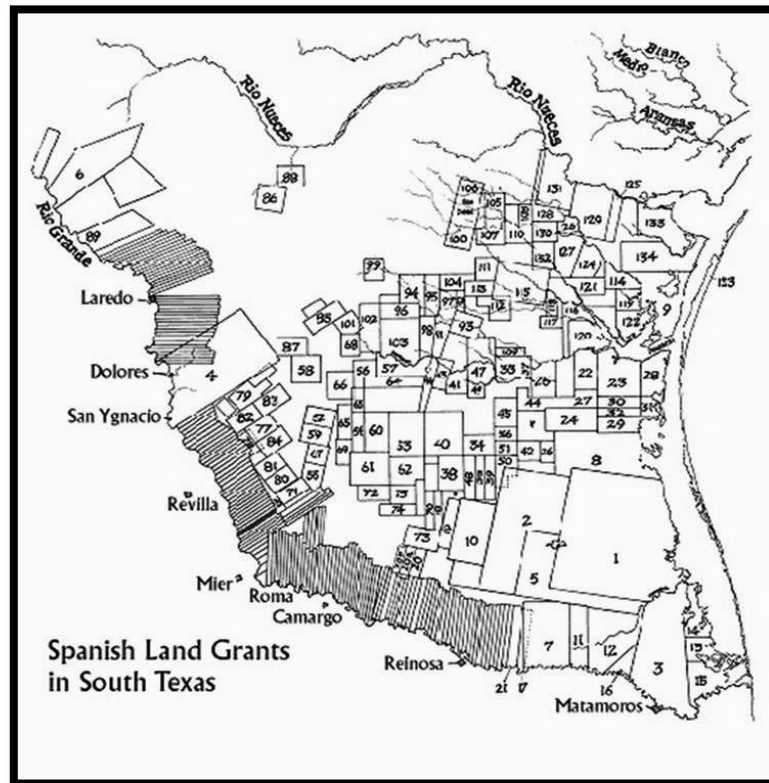


Figure 2.8 Spanish land grants between the Rio Grande and the Nueces River, Texas General land office, Jackson adaptation, 1986



Figure 2.9 Brownsville Daily Herald Monday July 4, 1904, Brownsville Queen City of the Rio Grande, (from San Antonio Daily Express June 19, 1904), p.1

NAFTA and the Rio Grande Valley

The Rio Grande Valley (RGV) established a legacy as an agricultural powerhouse throughout the 20th century. However, that legacy is currently overshadowed by a rapidly growing consumer economy. What were once bountiful fields of agricultural produce several decades prior have now been transformed into housing development real estate and retail. The introduction of North American Free Trade Agreement (NAFTA) in the 1990s in many ways improved the local RGV economy as it increased trade between the US, Mexico, and Canada. By tapping into each other's supply and demand situations, the flow of commerce has exponentially grown. That is not to say that the agreement was not subject to extensive debate before its passage. Public opinion was divided on the implications of the agreement. Proponents argued that the US stood to gain while opponents argued otherwise. There was a general optimistic perspective, however, and that was South Texas' position to be the centerpiece of a 6 trillion-dollar market ²⁶ (Figure 2.10)

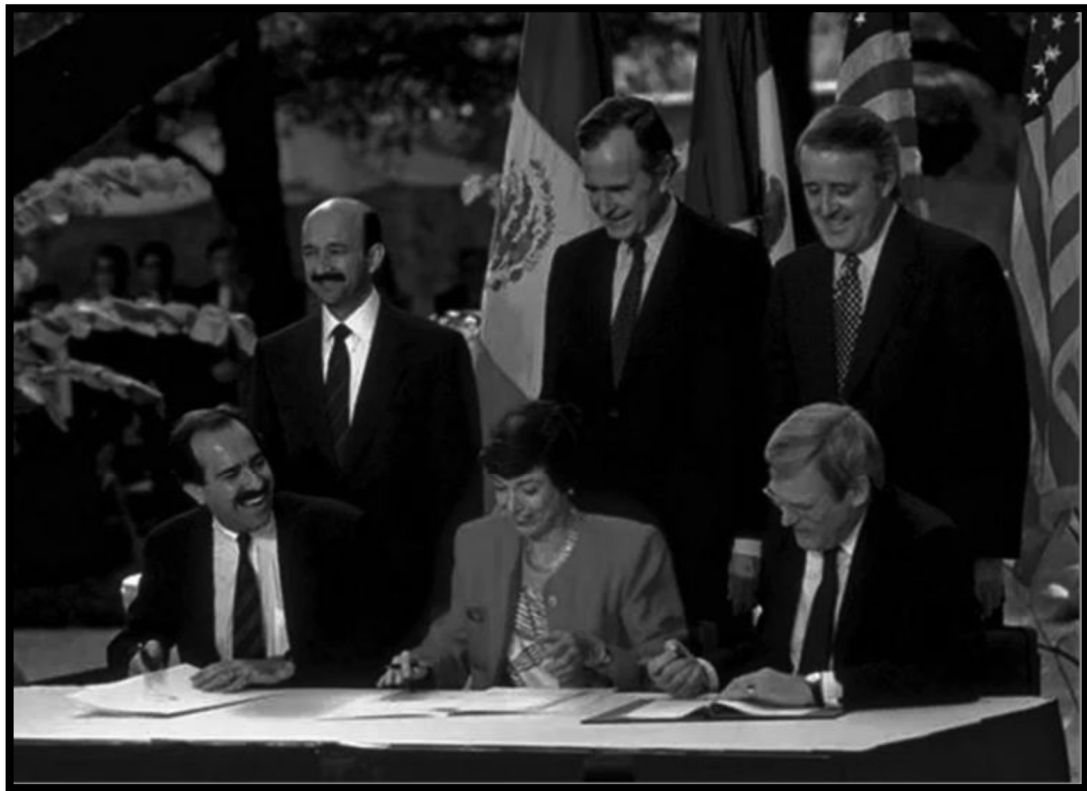


Figure 2.10 The signing of NAFTA in 1992 represented one of the biggest and most important economic transformations for the agricultural sector of the LRGV,
<https://news4sanantonio.com/news/local/north-american-free-trade-agreement-gets-signed-on-oct-7-1992-in-san-antonio>)

²⁶ Judith Stallmann, "NAFTA and the Lower Rio Grande Valley of Texas: Measuring Impacts," April 12, 2016,
https://www.academia.edu/24340562/NAFTA_and_the_Lower_Rio_Grande_Valley_of_Texas_measuring_impacts.

International Asset

When it comes to agriculture, Mexico supplies fresh produce that the US cannot grow year-round. In turn, the US provides Mexico with resources they cannot produce in copious amounts, such as rice, corn and grain. The US imported \$12 billion in frozen and fresh produce in 2016 from Mexico. Moreover, half of that entered the country through Texas on 220,000 trucks.²⁷ The construction of critical infrastructure such as highways and ports of entry led to endless supply chains of produce coming in from Mexico. A notable example of such infrastructure is Mexico's Highway 40, which fully opened in late 2014 and connects major trade centers such as *Mazatlan* in *Sinaloa* to *Reynosa* in *Tamaulipas*. Since then, there has been gradual increases in truck traffic along the region due to reduced travel time and cost. In fact, the Pharr International Bridge surpassed the bridge at Nogales, Arizona, as the No. 1 land port for produce. Nogales had held the title for a century, and it was only recently in 2017 that Pharr overtook it. This achievement is even more impressive when considering that in 2010 all bridges in South Texas combined were needed to have the same yield. The rise in traffic gained the attention of brokers from Nogales and beyond to move their businesses to Pharr.²⁸ Figure 2.11 shows the influx of commercial traffic at the Pharr-Reynosa International Bridge.

Therefore, more investments are expected to be made to accommodate the increased trade in the RGV. Investments come in the form of restaurants, gas stations, roads, housing, and much more. Cities such as Harlingen and Brownsville were expanded to handle the high influx of traffic and to establish better infrastructure of the I-69 highway. All these factors contribute to more jobs as the incentive to maximize goods and services is at an all-time high. The optimistic approach towards South Texas by NAFTA proponents seems to be coming to fruition. As with any developing region, having a strong economy on multiple fronts is advantageous. Reliance on a single dimension economy can often be catastrophic as there is no alternative to fall back to. The Valley has diversified, and even managed to make its landmark on a global scale. For example, the port of Brownsville is a world leader in ship recycling as well as constructing offshore oil drilling platforms. The port has created 44,000 jobs in Texas along with 8,000 regional jobs that provide \$2 billion to the local economy and \$3 billion to the state.²⁹ Such staggering statistics are not to be undermined as it implies that the RGV is a key player in international commerce. None of these achievements would be possible without NAFTA.

²⁷ rgVision Magazine. "Valley's Economic Future Is a Five-Letter Word: NAFTA," April 20, 2021. <https://rgvisionmagazine.com/%E2%80%8Bvalleys-economic-future-five-letter-word-nafta/>.

²⁸ ———. "AgriLife Study Shows Truck Traffic Surging at Pharr International Bridge." AgriLife Today, November 25, 2015. <https://agrilifetoday.tamu.edu/2015/11/24/truck-traffic-study-of-pharr-bridge/>.

²⁹ rgVision Magazine. "Valley's Economic Future Is a Five-Letter Word: NAFTA,"



Figure 2.11 Trucks wait on the Pharr-Reynosa International Bridge to enter the U.S. In Pharr, customs officials inspect the cargo. mySA. “U.S.-Mexico Border Trade,” June 2, 2011. <https://www.mysanantonio.com/slideshows/business/slideshow/U-S-Mexico-border-trade-15279.php>.



Figure 2.12. La Plaza mall at McAllen, Texas, considered the premier shopping center of South Texas, La Plaza Mall | OMNIPLAN. “La Plaza Mall Renovation | OMNIPLAN,” n.d. <https://www.omniplan.com/work/case-studies/la-plaza-mall.html>

RGV Demographics

In 1990, the RGV population was only one tenth of what it is today. The Mission, McAllen, Edinburg area was ranked the 4th fastest growing population between the years 1990 and 2000 when NAFTA was established. From 2000-2010, the area was ranked 10th. According to the US Census, the population of the RGV has grown by 64% since 1990 and now stands at 1.4 million. Besides the economic boom in the area, there are other specific reasons why the RGV has increased its population. It is ranked 3rd in lowest cost of living, with cheap housing that attracts “Winter Texans” who come from northern US states and Canada on a seasonal basis. There is also a large amount of people from Mexico who cross the border and spend money at US retail stores during their stay. More than 40% of McAllen’s sales tax revenues come from such shoppers. A notable example is “La Plaza” Mall, located in McAllen, Texas (see fig. 2.12). This trend created a substantial number of jobs that has reduced the unemployment rate from 24% to 8%, although numbers tend to fluctuate.³⁰ Even though unemployment rates have dropped significantly in the area over the past two decades, they still lack when compared to the rest of the state, which averages at 3.6% as of August 2019.³¹ The demographics highlight that the youth of the Valley partake in most entry level jobs having to do with retail. This is no surprise since over half of the Valley’s population is under the age of 35. A combination of low cost of living and access to affordable education has enticed the youth of the Valley to stay.

Local Consumer Economy

Although the future of the RGV economy looks promising thanks to NAFTA, its agricultural capacity is not on par with other economic sectors. That is not to say that NAFTA is inherently bad. However, the treaty did affect domestic production during the early years, and to an extent, farmers. From 1990-1997 the agriculture sector was already at a decline throughout the US, including the Valley. In addition, the negative local component implied that the local agricultural sector was at an even higher decline when compared to the agricultural sector of the nation. Part of the reason for such a downgrade was due to the agriculture structure in the past not being competitive. The decline of the agricultural sector in the region began before NAFTA, but it is evident that the treaty only exacerbated the process during those early years.³² Urbanization had a profound effect on irrigated farming. Retail sales, trade, and maquiladora manufacturing in Mexico now dominate the flow of income in the area. For comparison, agriculture is worth \$584 million in gross sales while

³⁰ Free Essays - PhDessay.com. “Effects of NAFTA on the RGV - PHDessay.Com,” April 20, 2022. <https://phdessay.com/effects-of-nafta-on-the-rgv/>.

³¹ “Texas Maintains Record Low Unemployment Rate of 3.4 Percent for Fourth Consecutive Month | Texas Workforce Commission,” n.d. <https://www.twc.texas.gov/news/texas-maintains-record-low-unemployment-rate-34-percent-fourth-consecutive-month>.

³² Judith Stallmann, “NAFTA and the Lower Rio Grande Valley of Texas: Measuring Impacts,”

retail sales now account for \$7 billion annually. Another effect caused by the economic bilateral closure between Mexico and the US is the transfer of invasive species. Weeds, insects, and diseases can infest agricultural fields. Moreover, environmental impacts caused by global warming are also of importance. Rising temperatures, increased water use/losses, and generations of deleterious pests in the agricultural system are potential catalysts to the downward trend.³³ The state legislature also played a significant role in these issues. Since the state of Texas is mostly pro-business due to its political nature, there are laws in place that have exacerbated environmental concerns. HB 40 and SB 709 are pieces of legislature that have had the most profound effect. HB 40 removed local governments from their ability to limit drilling, truck traffic, noise, and other gas/oil activities around city limits. Therefore, schools, hospitals, and neighborhoods are at risk of suffering from industrial incidents. Local laws in the RGV that focus on freshwater protection, pipelines, and even drilling oil close to schools might be removed from local legislation. HB 40 overrides legislation at the lower level which would incentivize companies to sue cities that obstruct their activities. SB 709 ravaged the process for evidence-based hearings when the state considers permits for polluting entities. This means that it would be harder to keep threatening plants and hazardous waste out of communities in the RGV.³⁴

Agriculture

On a positive note, even though the Valley is no longer centered around agriculture. It does continue to have an annual economic impact of \$1.1 billion. The sector is expanding steadily, thanks to the region's overall economic development. Other areas in the state produce higher volumes of produce, but the Valley is not far off. In 2011, the Valley ranked 8th among the top regional producers. The most competitive areas in the state that rival the Valley are at the coast, north, and southeast. Individually, Hidalgo and Cameron counties ranked 7th and 24th respectively, out of 254 counties statewide. In contrast, Starr and Willacy counties are among the top 85.³⁵ Part of the reason both counties ranked lower than their counterparts is due to its low population density. Combined, the population of both counties account to 86,000 while Hidalgo and Cameron tally up to 1.3 million.³⁶ Regardless, the Valley has earned its place in one of the country's richest agricultural states. The annual agricultural cash receipts of Texas are almost \$19.2 billion, which ranks the state 3rd in the

³³ Ana, Rod Santa. "Agriculture Tells the History of the Rio Grande Valley." AgriLife Today, December 29, 2016. <https://agrifetoday.tamu.edu/2017/01/03/valley-agriculture-history/>.

³⁴ Scruggs, Melanie. "Fighting Pollution in the Rio Grande Valley." Texas Campaign for the Environment, October 20, 2015. <https://www.texasenvironment.org/fighting-pollution-in-the-rio-grande-valley/>.

³⁵ ———. "South Texas Agriculture: \$1.6 Billion and Growing in Four-County Area." AgriLife Today, August 12, 2011. <https://agrifetoday.tamu.edu/2011/08/12/lower-rio-grande-valley-agriculture-impact-set-at-1-6-billion/>.

³⁶ RGV Health Connect. "RGV Health Connect: Demographics :: Region :: Rio Grande Valley." Copyright (C) 2022 by RGV Health Connect, n.d. <https://www.rgvhealthconnect.org/index.php?module=DemographicData>.

nation. Only California (\$36.2 billion) and Iowa (\$24.75 billion) surpass such numbers. The products that keep South Texas agriculture active include vegetables, beef, eco-tourism, and nurseries. The area also has a competitive edge to keep the population fed since most of its natural resources are still intact. Resources such as land, water, and climate are imperative to sustain any sort of farming. There are added benefits to the growing prosperity in the region, which includes the production of biofuels. Environmental policies have gained a lot of traction and South Texas has huge opportunities in meeting those requirements. The subtropical climate in the region is ideal to produce biomass year-round. The area is also set to produce fuel from algae at the Gulf Coast. This entire ordeal highlights how investments can also be diverted into agricultural research. According to a study from the University of California-Davis, for every dollar spent on research, society receives \$32 in return.³⁷

NAFTA Assessment

Offsets caused by NAFTA continue to be the most prevalent and controversial aspect of the agreement. Even though the Valley has received more benefits than losses, the nation has experienced an economic deficit. For example, the combined US goods and services trade deficit with Mexico and Canada rose from \$10.5 billion in 1993 (before NAFTA) up to \$182 billion in 2018. The annual growth of service exports since NAFTA has fallen to less than half the pre-NAFTA rate. The US Labor Department certified that 980,000 specific jobs were lost to NAFTA, a significant undercount given that the Trade Adjustment Assistance (TAA) excluded several categories of workers. It is also worth noting that reporting is voluntary, and only those who know of the TAA program, and apply, are even considered. Therefore, the true number of job losses due to outsourcing could be significantly higher than what has been officially stated.³⁸ Overall, the effects of NAFTA seem to have negatively affected the country more than the RGV. The region has gained a lot from the agreement, and only time will tell whether there are any severe consequences from partaking in such an excessive consumer economy.

Previous CHAPS Studies

Over the previous decade of the student-led research series known as “A *Porción* of Edinburg” the CHAPS studies from UTRGV have documented various farming families who have come to the RGV for many reasons. Some of these reasons either come from the news of how the RGV was a “Magic Valley” for those seeking to prosper their careers in

³⁷ ———. “South Texas Agriculture: \$1.6 Billion and Growing in Four-County Area.” AgriLife Today, August 12, 2011. <https://agrilifetoday.tamu.edu/2011/08/12/lower-rio-grande-valley-agriculture-impact-set-at-1-6-billion/>.

³⁸ Public Citizen. “Fact Sheet: NAFTA’s Legacy: Lost Jobs, Lower Wages, Increased Inequality,” October 16, 2019. <https://www.citizen.org/article/fact-sheet-naftas-legacy-lost-jobs-lower-wages-increased-inequality/>.

agriculture, run away from the violence from Mexico during the Mexican Revolution of 1910, and even taking a shot at moving to the RGV to continue their lifestyle of farming. Previous reports and research on some of these traditional farms and their families such as the Roegiers Farm and the Norquest Farm will be compared with the Raygoza family and their *Terra Preta* farm and its operations. This also allows us to outline the difference between traditional and organic farming which, in turn, leads to the description of labor practices and programs all the families from previous studies have been involved with.

Comparisons and Contrasts between traditional and organic farming of the Raygoza Family

The majority of the previous CHAPS reports help give a thorough review of what traditional farming was like in the 20th century especially in the city of Edinburg or the RGV itself as a whole. This can help the process of understanding when comparing how these traditional farming families operated in the past and contrasting their results with the current family we are researching. The Raygoza Family focused on organic farming. When comparing the Raygoza family and the previously studied families, there are a few things in common. One of which is that each member of the family has been involved in the labor area of tending to the crops. When looking at the Roegiers family report, we see comments in the oral history interview of Clara (Roegiers) Duffy that pertain to the family duties on the farm. “As Clara explained, “...and when my kids were teenagers and I guess even some cousins, Uncle Noel’s kids, Roy decided that we would save labor cost and we were going to pick fruit ourselves and he had his trailer and his tractor and the boxes we would get the boxes from the citrus association. So, he picked up the boxes and brought them to the orchard. We got ladders and we would pick the oranges. My two sons, my daughter and even some cousins would spend many hours climbing the ladders and filling up the buckets and then the boxes to be hauled to the association to be packed. They have memories of it; they hated it at the time, but they have good memories.”³⁹ A contrasting aspect from the Raygoza family is their greenhouse high tunnels. The high tunnels are an innovation they are currently using for organic farming seen on their 20-acre Rogers Road property in Edinburg. (Figure 2.13)

In the Norquest Family report, the family started off with a much larger property when compared with the Raygoza’s properties. The Norquest family originally had at least 80 acres of property which was sold bit by bit or shared with the family members throughout the years. “The proximity of the farmhands’ camps to the fields and the Norquest home, which lies in between what was once their 80 acres of land, for example, suggests a

³⁹ Annaiz Araiza, et al., 2017, Roegiers Family Farm: A Porción of Edinburg. A report prepared for the Roegiers Family and for UTRGV and the CHAPS program class titled: Discovering the Rio Grande Valley: The Natural and Cultural History of South Texas. University of Texas Rio Grande Valley, Edinburg, TX, p. 44.



Figure 2.13 Green House high tunnels (side by side) 2022, Terra Preta Farm
October 24, 2022, Edinburg, Texas.

functional approach to facilitating the supply chain of crops.”⁴⁰ Carrol Norquest Sr., highlighted in the Norquest CHAPS study has applied innovations to his 40-acre property, “Carrol, along with his workers, dug trenches seven to nine feet deep for placement of cement pipes to carry mineral-laden water to the drainage ditches. He employed a modest group of laborers to assist in reclaiming his land’s agricultural potential. After six months, his idea worked; the undesired salts and minerals in the topsoil leached down and outward, leaving the topsoil sweet and fit for growth of vegetation. “Anything will grow there now,” he wrote.”⁴¹ What can be seen here are different strategies for crop according to Norquest family farming practices, not something seen within operations of the organic farm of the Raygoza family. The previous reports also offer many photos of some of the innovations used by the other families that provide an understanding of the experiences of these traditional farming families of the 20th century.

Operations of Traditional and Organic Farms

Previous CHAPS studies offer a window into the past of the operations of traditional farming practices. Some of these families used chemical fertilizers and herbicides on their crops, large to small machinery, and other practices that are not used in organic farming. For instance, in the Roegiers Family Farm study (2017), other traditional farmers shared the commonality of this connection of family unity and a close-knit community. “They were

⁴⁰ Hernandez-Salinas, et al. 2012, The Norquest Family: A Porción of Edinburg. A Report Prepared for the Norquest Family and for The University of Texas-Pan American, Community Historical Archaeology Project with Schools Program. University of Texas-Pan American, Edinburg, Texas, p. 67.

⁴¹ *Ibid*, p. 40

very friendly; I mean we were kind of close-knit community; I mean it was. How everybody knew everybody, and how you don't hardly ever see anybody you know anymore. But I mean I don't know if that is a good or bad, I mean that's just the way it is."⁴²

Methods of Business Operations

The Raygoza family operates its Terra Preta farm as an urban, organic and sustainable farm. They have their very own website that's connected to their all natural, organic crops where anyone can set a pickup date to buy small to large packages of seasonal organic products that greatly supports the family and its program. They also work with the Sentli Foods program which also is similar to how they operate Terra Preta farm, but one can customize an order of organic crops and establish a location to pick up the produce order once its ready and paid for. Silia Robles, a member of the Community Supported Agriculture (CSA) shared her role in the Sentli Center for Regenerative Agriculture during an interview for this study, which she says is a nonprofit organization. "I also support the Raygozas because they also have a nonprofit organization called SENTLI. I don't know, Shakera actually asked me a while back if I wanted to be the secretary of their non-profit and I'm like YAY but oh my God I just haven't had a chance to really contribute much, however I have been trying to be active but I wish I could do some more but other than that I mean we really haven't been involved in any other activities."⁴³ (Figure 2.14)

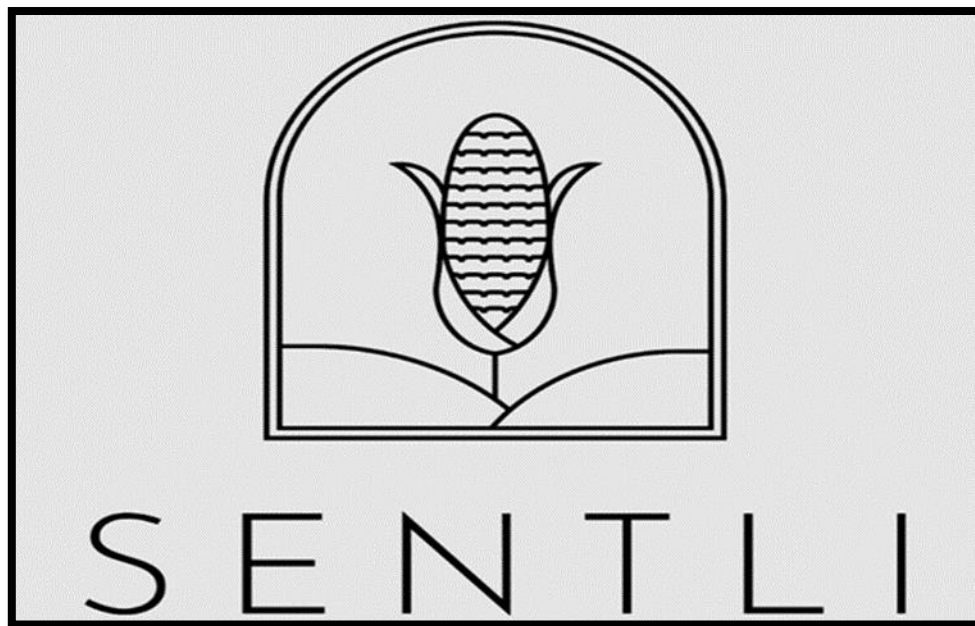


Figure 2.14 Logo for SENTLI Center for Regenerative Agriculture

⁴² Roegiers, Roy, and Duffey, Clara, Oral History Interview by Jennifer Quintero, Aram Rivera, and Stephen Garza. In person interview. Edinburg, October 13, 2016, housed at UTRGV Special Collections and Archives Library.

⁴³ Robles, Silia, Oral History Interview by Isaiah Casas, November 3, 2022, via Zoom, housed at the University of Texas Rio Grande Valley Special Collections and Archives.



Figure 2.15 Location of Sentli and Terra Preta Farm June 2022. Edinburg, Texas

Sentli is a non-profit organization which includes Shakera Raygoza as the executive director and co-founder, Priscilla Carbajal as the CSA farm manager, and Silia Robles and Amanda Ramirez. The goals and purpose of Sentli is focused on regenerative agriculture and improving the quality of life within the RGV by reconnecting people to the land and local food system.⁴⁴ Regenerative agriculture defined by Sentli is a term that summarizes substantial farming. “Regenerative Agriculture aims to cultivate by re-building the earth’s soils and ecosystems through diverse techniques such as composting, cover cropping, crop rotation, animal integration, pollinator incorporation, natural pest controls, and implemented biodiversity. Soil is the basis of life here on Earth, so when farmers practice regenerative agriculture, they nourish life from microorganisms to human beings.”⁴⁵

Sentli also offers community educational programs which allow K-12 students to visit Terra Preta Farm and are aligned with the TEKS for implementation in classrooms in the Valley. “Our world needs farmers to grow nutritious food in harmony with nature. The Sentli Center wants to cultivate future farmers to continue the hard work and commitment to provide our communities with nutrient-dense produce while taking care of the land. That is why we are proud to offer field trips for all K-12 students! In this interactive farm experience, students learn about the farming practices we implement, the variety of produce, and even harvesting vegetables! We assess the TEKS of each grade and cater the farm tour to teach the curriculum taught in their classrooms, elevating science teachings to real-life knowledge and experience. We strive to instill a sense of care and wonder for the plants growing from the soil, and the foods eaten from them through the experience at the farm.”⁴⁶ Sentli also encourages volunteers to work on Terra Preta Farm and conduct workshops which also educates participants about sustainable farming. Sentli has its community garden which allows for hands-on opportunities for all members to grow what they want in the

⁴⁴ “About,” Sentli.org, accessed December 8, 2022, <https://sentli.org/home/about/>.

⁴⁵ Ibid.

⁴⁶ “Community-Programs,” Sentli.org, accessed December 8, 2022, <https://sentli.org/home/community-programs/>.

garden. Sentli also offers community sponsorships which allows anyone to sponsor a family or make a one-time donation of 20-pound boxes containing naturally cultivated crops from Terra Preta Farm, delivered to people in need through other trusted services.⁴⁷ (Figure 2.15)

The Statistics of Farming in the Lower Rio Grande Valley

The United States Department of Agriculture (USDA) is a government agency that “provides leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on public policy, the best available science, and effective management.”⁴⁸ It has recorded the growth of agriculture in Texas along with other states. Although many people only see them as a group of individuals that prevent farmers from working to the best of their abilities, they do contribute to agriculture not only by providing financial support in the form of grants /loans but also in providing resources on topics farmers take an interest in like new farming practices and methods in the form of workshops. But they don't stop there. They also research agricultural problems such as invasive species from plants/animals and insects in order to prevent their spread of devastating crop growth.

Prior to the arrival of Spanish colonial settlers in the 1740s, the region we refer to today as the Rio Grande Valley of Texas was populated with indigenous peoples of various Coahuiltecan groups. The Spanish crown was concerned with movements of the French venturing down toward the Rio Grande from areas within east Texas and Louisiana and sent Jose de Escandon with many families to settle along the Rio Grande in order to deter encroachment into Spanish territory. “Private land grants in what is now South Texas did not begin until the mid-eighteenth century” when New Spain sent “commissioners, Juan Armando de Palacio and José de Ossorio y Llamas” to survey the land to administer land grants to individuals and obtain an official record of the transaction.⁴⁹ “Due to the shortage of water and the importance of irrigation for agriculture in the region, the commissioners surveyed long, thin strips of land, each with narrow frontage on a water course. These elongated quadrangles were known as *porciones*.”⁵⁰ Settlers were granted these parcels after almost 20 years of settlement, providing proof that they had contributed to the development of their village (known as “villas”), had made improvements on the land through agriculture and cattle grazing, and were prepared to defend their villa from Native American incursions.

Settlers to Texas adapted and it soon became known that Texas was a powerhouse in agriculture because it had a vast amount of land suitable for agriculture. (figure 2.16) We can further see its agricultural capabilities from its ability to fund the Confederacy before

⁴⁷ Ibid.

⁴⁸ De La Garza, Ruby, Oral History Interview by Christopher Covarrubias and Eduardo Hernandez, November 3, 2022, via Zoom, housed at the University of Texas Rio Grande Valley Special Collections and Archives.

⁴⁹ Lang, Aldon S., and Christopher Long. “Land Grants.” *TSHA*, 2016, <https://www.tshaonline.org/handbook/entries/land-grants>.

⁵⁰ Ibid.

and throughout the US Civil War. Texas has 639,117 acres of improved farmland and 10,759,220 unimproved acres of farmland.⁵¹ “Between 1850 and 1860, the amount of improved acreage in the states rose 305 percent, the corn crop 187 percent, and the cotton crop 643 percent (from 58,072 to 431,463 bales).”⁵² During the 1860s Texas had 2,050,781 acres of improved farmland and 22,693,247 of unimproved farmland.⁵³ After 1904 the Lower Rio Grande Valley’s (LRGV) irrigation system improved rapidly due to the construction of the railroad system. The Valley terrain was known as the thorn forest (or thorn scrub or *chaparral* in Spanish) but the forest would be cleared to create more land for agriculture. By “1938 only 23 percent of the 522,210 [acres] of irrigable land in the Valley was still ‘brush’.”⁵⁴ As the irrigation system improved and with it brought more population of South Texas, all of whom had high hopes to become a farmer in the LRGV. All the new settlers were excited with the promise of continued farm success year after year and inexpensive labor due to the proximity to the border where cheap Mexican labor was abundant. In Hidalgo County there were approximately 986,240 acres of land in the county the majority of which 964,014 acres belonged to the farms.⁵⁵ Many new settlers became successful farmers. However, not all newly arrived farmers were successful, and several returned back to where they came from. This can be seen in the statistics of farms in Hidalgo County in 1945 there were 5,616 farms which dropped to 5,314 in 1950.⁵⁶

As we look further into the peak of the agricultural history of Texas in the year 1950, we see statistics of farmers that run the fields in Texas. We see the demographics of the hard-working farmer. Most of the farming families of Edinburg, Texas studied by the CHAPS program arrived just after World War I in the 1920s and managed to remain successful through the 1950s and beyond.

Chain of Titles

In 1875, William J. Palmer and James Sullivan chartered a railway company called The Texas American Railway Company. By December 31, 1888, The Texas Mexican Railway was operated by the Mexican nationals and was able to participate in traffic

⁵¹ USDA. “Census of 1850 Statistics of Texas.” United States Department of Agriculture. Cornell University, 2019. <https://agcensus.library.cornell.edu/wp-content/uploads/1850a-20.pdf.pg> 515.

⁵² Campbell, Randolph B. “Empire State of the South.” *Gone to Texas: A History of the Lone Star State*, Oxford University Press, New York, New York, 2018, pp. 211.

⁵³ USDA. “Agriculture :Part III - Rhode Island, South Carolina, Tennessee, Texas, Vermont, Virginia, Wisconsin, Dakota(Territory), D.C., Nebraska(Territory), Nevada(Territory), New Mexico(Territory), Utah(Territory), Washington(Territory).” United States Department of Agriculture Census of Agriculture Historical Archive. Cornell University, 2019. <https://agcensus.library.cornell.edu/wp-content/uploads/1860b-07.pdf.pg> 148.

⁵⁴ Brush, p 28.

⁵⁵ USDA. “Statistics for Counties.” United States Department of agriculture Census of Agriculture Historical Archive. Cornell University, 2019. https://agcensus.library.cornell.edu/wp-content/uploads/1950-Texas-Table_of_Contents-1805-Table-03.pdf.pg 70.

⁵⁶ Ibid.

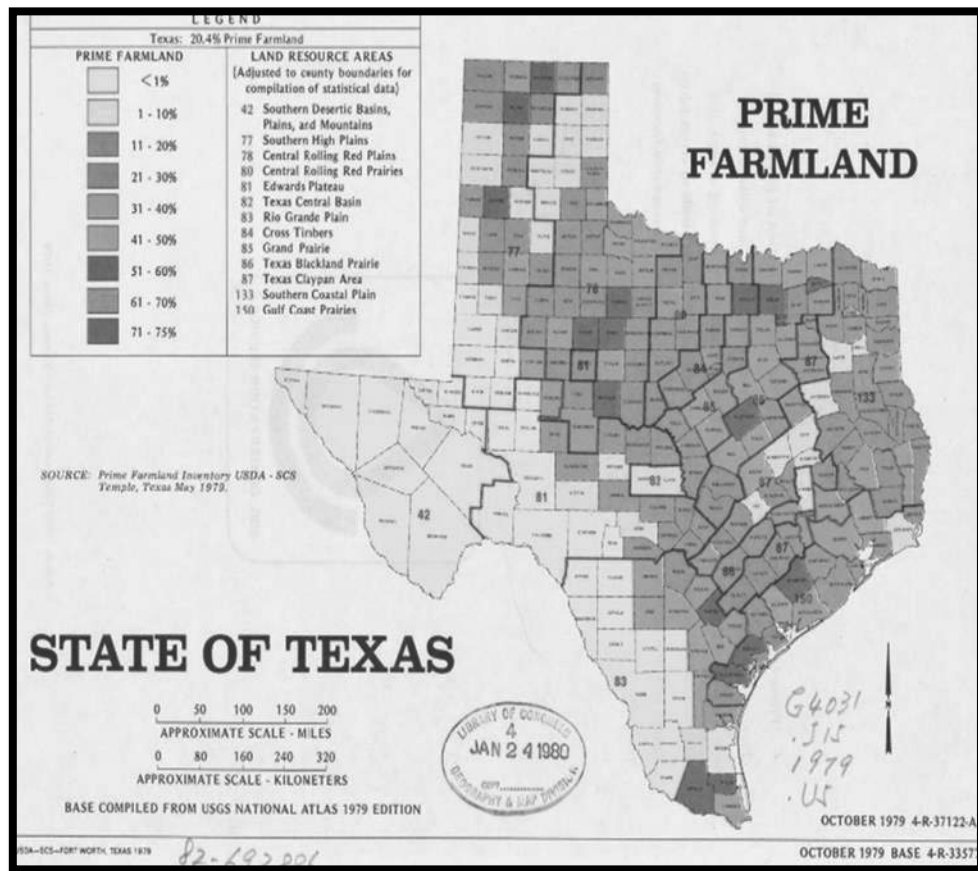


Figure 2.16 Prime Farmland, State of Texas, From USGS National Atlas 1979, USDA SCS-Fort Worth, Texas 1979

between the US and Mexico through Laredo.⁵⁷ While looking into the past of this company, a clearer picture emerged about the land this railway was built and how later people came to purchase and farm on it. The public land within the Texas Mexican Railway were considered part of the Permanent School Fund in Texas. On February 15, 1876, there was an appropriation to provide funding for land and property to create public schools from a source other than taxes. By the end of the Civil War, Texas had a substantial amount of debt. However, the state Legislature was able to find other ways to use this fund for ways other than education. They have used this fund for distribution on railroads as well.

In the early 1900s, the State of Texas owned the land where the Raygoza's are currently living. Section 248 of the Texas Mexico Railway property was purchased by Plutarco De La Vina on May 22, 1905 from the state of Texas. (Appendix Q). He obtained all six-hundred forty acres of land in 1905. We can see where the Texas Mexican Railway properties fall within the original Spanish Land Grants through the Hidalgo County Porciones Map of 1911. There one can see where Section 248 falls within that survey.

⁵⁷ Texas State Historical Association Handbook of Texas Online, Texas Mexican Railway, <https://tshaonline.org/handbook/entry/Texas-Mexican-Railway>, accessed on December 2, 2022. Texas State Constitution, Article 7: Education, section 2: Permanent School Funding

(Appendix R and S). De la Vina did not own the land for long, and eventually sold half of Section 248 to Jose G. Garza on June 28, 1905 (Appendix T). Jose G. Garza owned many parcels of the Tex-Mex Railway lands in Edinburg and would sell off some of that property to people. With Section 248 he split the 640-acre property in half, Jose G. Garza conveyed property to Porfira Garcia on March 22, 1910 (Appendix U). Unfortunately, we were not able to find any information when Porfira sold the land but around June 13, 1934, Lillian V. Seis acquired the land through Stewart Mortgage Company (Appendix V). For 7 years Lillian owned lot 12 and on June 18, 1941, Lillian, now known as Lillian B. Seis, sold the land to the Department of Agriculture (Appendix W). While there is no document to be found, it is likely that The Veterans Land Board purchased lot 12 section 248 from the department of agriculture.

The Veterans Land Board is an organization that helps give veterans and the military members the opportunity to borrow up to \$150,000 to purchase land. Lauro P. Muñoz, Imelda Moreno's father, purchased the land on the 25th of March 1954 (Appendix X) for the total of \$6,500. He had purchased it from the Veterans Land Board. In the oral history interview with Imelda Moreno, her father Lauro Muñoz, was not a farmer but a rancher.⁵⁸ That property was brushland with cattle and horses. Imelda also said that the cattle were roaming free. Her father sold some of his cattle to make money as well. Lauro passed down his property to his daughter (figure 2.17) Imelda Moreno on July 10, 1988 along with other valuable considerations. (Appendix Y)



Figure 2.17 Imelda Moreno with her parents Tula Muñoz and Lauro Muñoz

⁵⁸ Moreno, Imelda, Oral History Interview by Kate G. Purdum and Hector Rodriguez III, November 4, 2022, via phone, housed at the University of Texas Rio Grande Valley Special Collections and Archives.

Imelda had a dream that someday her land would produce organically farmed goods. She had many people interested and several offers about her property, but she didn't want any farmers that grew crops using pesticides and chemicals because of the school that is next to the property. Imelda describes how Juan Raygoza asked about the property, and she made a deal with him so he could purchase the property. On August 2, 2017, Imelda Moreno sold the property to Juan and Shakera Raygoza for \$300,000 (Appendix Z). To this day the Raygoza's are building a life and a business on this property and are producing organic fruits and vegetables. They have also built relations with the local community by selling to local businesses and at farmers' markets as well.

Agriculture and Labor in the Lower Rio Grande Valley

There are few more important aspects to understanding the landscape of the Valley than labor. Labor has been an important point of contention across the LRGV since its time as a part of the Spanish colonial empire, but such dynamic has been exacerbated by the rise of agricultural business starting in the early 20th century. As such, understanding the shifting labor dynamics of the region provides a crucial key to conceptualizing the role that organic agriculture fulfills in the region.

The climate of the LRGV has historically made the region ill-suited for agricultural projects for most of its history. During the region's time as a Spanish colony the main economic activity was that of cattle ranching, which would continue to be of great importance after the region gained independence from Spain and became part of other countries. Fifty years after the region was fully under the control of the United States in the late 19th century important developments were occurring in the region. The rapid development of infrastructure that helped agricultural business flourish, specifically the railroad tracks that connected upper Texas with this region and the different drainage systems that were built in the towns and cities that rapidly sprung up because of the railroad.

The rapid development of infrastructure in the region meant that the region transformed quickly. In many ways there was a drastic change in which power was concentrated in the hand of wealthy white men who emigrated from other parts of the country and sought to do business in the LRGV because of its affordability and its rapid growth. The underlying premise of these shifting dynamics is that large interest and development in the region required sources of labor that were both abundant and at low cost. This idea became even more relevant as ideas such as the Magic Valley gained popularity across the region and beyond.

When considering large agricultural figures like John Closner, or John H. Shary it is crucial to understand the large amounts of money that they generated across the LRGV were not because of their entrepreneurial spirit, but because of the continued exploitation of

Mexican-Americans and Mexican immigrants that were used as the perfect source of cheap and constant labor for the large agricultural projects in which the fortunes of these “great entrepreneurs” was based upon.

Another important point to mention is the fact that industrial/conventional agriculture has a direct correlation with different labor movements, particularly the plight of the United Farm Workers during the 1980's, which was primarily concerned with the adverse health conditions that farmworkers developed in the fields as a result of extensive use of pesticides on the crops. Because of its large scale and desire to produce food as cheaply as possible, the goal of maximizing profits far outweighed the concern for the quality or the health of the workers. Industrial level farming has been at the forefront of many pressing social issues of the region. As the struggle between the wealthy white agricultural producer versus the over-exploited *campesinos* in the fields revealed a microcosm of the social and political inequalities of the LRGV. On one side of the equation, there are the growers, mostly of white descent, deeply involved in profit driven agricultural production and with the support of local institutions because of the profitability of their activities. This is exemplified by Othal Brand, who because of his ownership of a large onion plantation became Mayor of McAllen. On the other side, the *campesinos* who were not only fighting for better conditions in the field or better pay but were also fighting against the evident inequalities in the region caused by the unequal agricultural labor system that exploited their labor at every step without the proper compensation.

NAFTA also had an important degree of influence in the region, not only by providing the economic conditions for the demographic explosion that the Valley has experienced since the 1990s, but also because it made farming harder for small farmers. One article describes it “a 1994 report of the Texas Comptroller of the Public Accounts forecasted that increased US -Mexico trade linked to NAFTA will result in a decrease in employment in Texas' agricultural sector of almost 3 percent for crop.”⁵⁹ Today, having access to cheaper crops from Mexico, the internal U.S. market has been less receptive to domestic producers, which in turn, have to operate at a larger scale or under a more profitable margin in order to stay afloat. In practical terms this translates into a condition of predatory capitalism in which small farmers are often overcome by larger farming conglomerates for their industrial production or quite simply succumb and sell off their land and equipment away to pursue other economic endeavors.

It is this context that the organics movement has come to prominence. In many ways, it is a direct alternative to the values and principles embraced by conventional agriculture. Organic planting is by definition a smaller operation, and one that requires more labor because of the lack of intense pesticides. As such, the operational costs are more expensive and thus new economic models must be implemented. Most notably the increased

⁵⁹ Giernanski, James R. “NAFTA and the South Texas Border: Is the Border Fit to Compete?” *Journal of the Southwest* 39, no. 2 (1997): 287–302. <http://www.jstor.org/stable/40170012>.

importance of coops, or cooperation-based organizations that get farmers together to discuss mutual end agreements for the benefits of the farmer community. This of course, is much less important for large agricultural farms.⁶⁰

Furthermore, there is a significant difference when it comes to the concept of labor. Organic farming is more labor intensive, but it also requires more care, something which is not as present in traditional agriculture. Quite simply, the workers do not function just as sources of labor but are generally more involved with the organization of the farm as well as in direct contact with the owner of the land that is being worked. In organic farming there seems to be a cooperation-based relationship of workers and farm-owners as opposed to the strictly hierarchical relationship that is present in traditional agriculture. As such, organic farming stands as a different model of operation for farming that offers a more equative relationship between workers.

⁶⁰ Helmberger, Peter, and Sidney Hoos. "Cooperative Enterprise and Organization Theory." *Journal of Farm Economics* 44, no. 2 (1962): 275–90. <https://doi.org/10.2307/1235830>.

Chapter 3: Origins and Family Life

Alexis Arizpe, Cristina Garza, Ana Gutierrez, Dina Morales, Alyssa Perez,
Natalia Perez, and Karen Villarreal

The Raygoza Family has a beautiful farm in Edinburg called *Terra Preta* Farm. Terra Preta is a Portuguese phrase that means “dark earth” due to its very dark, fertile soil.¹ Juan first read about this type of soil back in college. Terra Preta soil is common in Brazil and the Amazon basin, and its dark appearance is thanks to the high charcoal content left behind by wildfires.² Juan and Shakera Raygoza got their passion for farming in various ways. Both have been exposed to agriculture by their families, which paved the way to create Terra Preta Farms. Juan's decision to move to the United States from Mexico initiated a chain of events that led Juan to start a family, farm, career, and community bond.

Juan's family was a significant influence on his interest in agriculture. He has always been surrounded by farmers, agronomists, agricultural scientists, animal scientists, plant breeders, teachers, and professors. Juan's maternal family, the Castros, were highly involved in agricultural academics, farm life, and development. His parents, Mireya Castro and Juan Manuel Raygoza, reside in Saltillo, Coahuila, Mexico.

Origins

Juan Raygoza is the son of Juan Manuel Raygoza Amozurrutia and Mireya Castro de Raygoza from Saltillo, Coahuila, Mexico. The origin of their distinctive last names, Raygoza and Amozurrutia, both come from Europe. The surname Raygoza is of Portuguese origin. During his interview, Juan Manuel Raygoza Amozurrutia shared a story about the origin of his family. It all started with a Spaniard that moved to Portugal, and because of his specific characteristics, he was adopted by the Court of the King of Portugal.³ When he moved back to Spain, he adopted the surname Reygoza. Then he married an Italian woman with the surname Rigisa, and the modern spelling of the name Raygoza came from the mergers of these two names. Amozurrutia is of Basque origin. Rafael Alberto Amozurrutia, Juan Manuel Raygoza Amozurrutia's maternal grandfather, told his grandchild the story of their family's origin in the Pyrenees Mountains on the border of Spain and France. The two families merged: the Amos and the Urrutia. From those two surnames came Amozurrutia.⁴

Juan Raygoza grew up in a family heavily influenced by farmers, agronomists, agriculturalists, animal scientists, plant breeders, and educators. To understand how Juan's

¹ Lehman Johannes; Verena Jauss, “Cornell University: Soil Fertility Management and Soil Biogeochemistry Johannes Lehmann,” Cornell University | Soil Fertility Management and Soil Biogeochemistry Johannes Lehmann, Accessed November 22nd, 2022, <https://www.css.cornell.edu/faculty/lehmann/research/terra%20preta/terrapretamain.html>.

² Ibid.

³ Mr. and Mrs. Raygoza, Oral History Interview by Karen Villarreal and Diego Rivera.

⁴ Ibid.

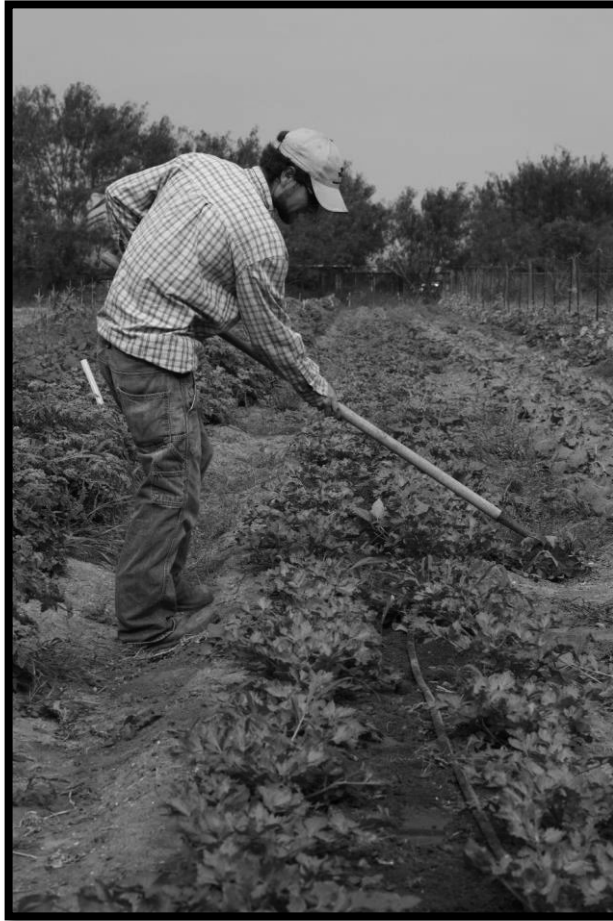


Figure 3.1 Juan is pictured tending to his crops.



Figure 3.2 Juan and Shakera Raygoza.

life was impacted by agriculture; we must focus on the Castro family's history of agriculture. That would be Juan's mother, Mireya Castro de Raygoza's side of the family. The passion for agriculture in the Castro family goes back many generations. Juan's great grandfather José Reyes Castro Ramirez, a professor who was a cavalry captain during the Mexican Revolution, fought with the liberals under the command of Venustiano Carranza and Pancho Villa.⁵

After the war ended, one of the most educated men among the revolutionaries was Professor José Reyes Castro Ramirez. He gathered the veterans that did not have much schooling to ask the Mexican government for agricultural land for all veterans. After many years of trying, he received a large parcel of land for all the veterans, approximately 50 km from Saltillo. The quality of this land was rich for farming and agriculture. After some time, many veterans died or moved to a different city, and José Reyes Castro Ramirez bought the land from them or their families. That land became the Castro family ranch named San Felipe. The farm covers about 89 acres.

José Reyes Castro Ramirez became a farmer by planting corn, beans, and wheat. Today it has been divided into three parts, one belonging to Mireya Castro de Raygoza (Juan's mother), another to Juan's aunt, and the last part to his uncle, which has been kept in the Castro family. Now each section is named San Felipe de Arriba, San Felipe del Medio, and San Felipe de Abajo; they have kept the original name because the family is already known in the area as the San Felipe family. Juan Raygoza will inherit his portion of the San Felipe ranch. Currently, the farm grows three pecans: Castilla Pecans, Western Pecans, and Wichita pecans. Also, there are areas where beans and other crops are grown using irrigation. San Felipe is the ranch where Juan learned to love agriculture and continued the passion that runs through his blood.⁶

Juan's grandfather, Jose Reyes Castro Ramirez, began his farming life on the ranch, and that is how the history between the Castro family and the Agrarian University, which used to be known as "Escuela Superior de Agricultura Antonio Narro" starts.⁷ Juan's maternal grandfather Efraín Castro Estrada, the eldest, and his sibling attended Agrarian University and became the first engineer in agronomy of the family. Twelve family members have graduated from Agrarian University, and Juan is in the third generation and is also dedicated to agriculture.⁸

The passion for agriculture stems from the maternal side of Juan Raygoza's family. This side of the family includes generations of teachers. Juan Raygoza is a man surrounded

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

by very influential women in his life. Beginning with his maternal grandmother, Estela Gil Lara, a schoolteacher who helped found a school where over 700 students were taught.⁹ His sister, Angelica, followed in her grandmother's footsteps, became a schoolteacher, and later the school principal.¹⁰ Angelica works in communicology with a master's degree in education.¹¹

The women in the family were not the only highly educated individuals. Juan's father, Juan Manuel Raygoza, is a very well-educated man. Mr. Raygoza found himself without a career after he married Mireya Castro and decided would enroll at the university.¹² Due to his excellent grades, Raygoza had many acknowledgments, including being exempt from an exam and even having a job at the school.¹³ From there, he got his Bachelor's in sociology and later his master's after he got a scholarship from the National Council of Science and Technology.¹⁴ After that, he became the academic director for the Agrarian University without a degree in agriculture.¹⁵ He retired 30 years after being a master's level research teacher.

After he retired from the university, Juan Manuel Raygoza received a recommendation to teach at a technical school named the Center of Forestry Education and Training (*Centro de Educación y Capacitación Forestal No. 2*) in Saltillo, Coahuila, Mexico.¹⁶ There he worked an extra ten years helping students in their education to gain their high school certificate and a forestry technician degree. Mr. Raygoza says that after he retired from the technical school, he was deemed the "best teacher at the school."¹⁷

As previously mentioned, the passion for agriculture runs in the blood of Juan Raygoza's maternal side of the family. Juan's maternal great grandfather was a professor and agronomist who was also a part of the Mexican Revolution. We must also recognize the discoveries of Juan's uncle, Dr. Mario Castro Gil, a genetic scientist who studied corn. He was the brother of Juan's mother, Mireya Castro. Mario Castro Gil graduated as an agricultural engineer from the Universidad Autónoma Agraria Antonio Narro (UAAAN) or Antonio Narro School of Agriculture in Saltillo, Coahuila, which his family founded.¹⁸ This university happens to be Saltillo, Coahuila's first agricultural university.¹⁹

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Ibid.

Dr. Castro Gil had grades that allowed him to attend Chapingo Graduate school in Texcoco, Estado de Mexico, Mexico, where he was given a scholarship from the Rockefeller Foundation to study for a Ph.D. at the University of Nebraska.²⁰ His studies at the University of Nebraska ultimately led him to the most important and prominent part of his work.²¹ Dr. Mario Castro Gil developed a strain of corn that produced more corn with a shorter but thicker stalk. Because of this development, Dr. Gil is now recognized worldwide for his contribution to agriculture.²²

Juan Manuel Raygoza wrote several publications, but he and his wife specifically wrote “The Sower” about his late brother-in-law Dr. Mario Castro Gil.²³ In this book, Raygoza focuses on Dr. Gil’s demand for better seeds so that farmers could use the crops they were harvesting for consumption and sale and produce more crops.²⁴ Additionally, in the book, Mr. and Mrs. Raygoza discuss Dr. Mario Castro Gil's accomplishments while studying agriculture.²⁵

Juan Raygoza's long farming family history has inspired and pushed him to fulfill his dreams of farming for his own family. Juan Raygoza is the owner of the Terra Preta Farm. He is a fascinating man with a history demonstrating his love for farming early in his childhood. Juan was born in Torreon, Coahuila, and later, his family moved to Saltillo, both of which are in Mexico. He lived in big cities like this throughout his life, so moving to a smaller region like the Rio Grande Valley was a new experience.²⁶

He has many interests in his life, from farming, which he’s made a career in, and sports interests too, like basketball, which he’s returned to recently by joining an adult league. Music was also a big part of Juan's early life. He learned to play the guitar. Juan Raygoza is an excellent farmer and family man who likes to take charge of what he’s interested in and is passionate about Terra Preta Farm and his life as a farmer.²⁷

As for his earlier life, as a child, he was gaining interest in farming. Juan's childhood was full of experiences with agriculture long before he was given the idea of owning his farm. At a very young age, there are memories of his mother telling him stories of his grandfather. He would violently exterminate the pests that were infesting their crops. Juan was fascinated that his grandfather could have a job at such a young age. This fascination sparked Juan's interest in matriculating at Antonio Narro University, the same university his

²⁰ Ibid.

²¹ Ibid.

²² Ibid.

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Raygoza, Juan, Oral History Interview by Chris Cuellar.

grandfather and other family attended. Juan spent the better part of four and a half years enduring a rough college experience to study agronomy in horticulture after exploring other majors, including Animal Science and Plant Science. Juan's passion for organic farming was inspired by a book about Brazilian soil's richness and health benefits. This book showed Juan that healthy soil is dark and would produce nutrient-rich fruits.²⁸

Many factors influenced Juan's life, but when he was still in college, he was a part of a band with his friends. His crew would play mellow, soft rock and sing about preserving nature. This band helped Juan see that he wanted to make a change in the little way he could.²⁹ Juan understood that organic farming was the best way for him to do this. He wants to give the world healthy products without damaging the planet and people with harmful chemicals attached to conservative agriculture.

While the band brought about so many memories and passion for Juan, it also made him seriously think about his future. He admits he saw no permanent lot playing music with this band. This caused him to consider relocating to the United States to focus on learning English and establishing a more permanent future doing something he's passionate about.

After graduating in 2000, Juan was unsure what to pursue and make of his life. Juan Raygoza found himself in a challenging position where his music hobby was fun, but he also knew this career would be hard to pursue. Worried about his future, his mother, Mireya Raygoza, called a family friend in Utah.³⁰ When Juan was brought up in the conversation, she confessed her concern for his son's future. He had been growing vegetables and playing gigs but had no vision. The friends quickly asked if Juan would be willing to live with them in Utah, and Juan agreed. Juan knew that moving to the United States could open more doors for learning English and increase his farming knowledge.³¹ This would be an opportunity to discover new areas and environments and maybe change his perception and vision for his future, and it sure did. In Utah, he worked with commercial growers for a while.

Juan and Shakera

Eventually, he met his wife, Shakera Black, a registered nurse born in Pensacola, Florida. She spent her early childhood living there until her mother married a military man when she was in the first grade.³² Shakera and her mother relocated to various parts of the world, including New York, Washington, South Korea, and Italy.³³ Shakera credits her interests in gardening, eating fresh foods, and the outdoors to her grandmother, who had a

²⁸ Ibid.

²⁹ Ibid.

³⁰ Ibid.

³¹ Ibid.

³² Raygoza, Shakera, Oral History Interview by Alexis Arizpe and Cristina Garza.

³³ Ibid.

garden.³⁴ Shakera helped her grandmother with her garden and became interested in organic foods and vegetables. Despite this interest in farming, Shakera pursued a degree in nursing. She graduated with her bachelor's degree from the University of Florida in 2004.³⁵

Shakera met her husband, Juan Raygoza, on a dating website for their Christian Church in 2003. Juan shared her love for agriculture and the outdoors. Before long, they formed a long-distance relationship after messaging back and forth for over a year until they met in person in February of the following year.³⁶

At the time, Juan lived in Utah, and Shakera was still in Florida. Right before they initially met online, however, Juan traveled back to Mexico to visit family and ended up staying there longer than he intended due to borders closing after the 2001 September 11th attacks. They continued talking while Juan was in Mexico and Shakera in Florida through regular phone calls. After a couple of months, Shakera and Juan finally met in person when Juan visited her in Florida after returning to the United States. Shakera and Juan dated for about a year before getting married. They had two ceremonies, one in Mexico and another in Florida.³⁷

While in Mexico for one of the wedding ceremonies, Juan misplaced his visa and passport. Without them, he would not be able to enter the United States for the other ceremony in Florida that his mother-in-law had prepared.³⁸ Juan had put his documents in a CD case in his truck. After doing an errand in this truck, he hid the CD case between the seats for safekeeping. He went about his day forgetting about the case. At the end of the day, when he had the opportunity to think and reflect, Juan said he had an undeniable feeling that the CD was lost. So, in the middle of the night, while everyone was sleeping, he checked his truck and found that the CD with his passport and visa wasn't there. Panicked, he woke up his father, and together they tried to figure out what had happened. His father mentioned that Juan's uncle had taken the truck on an errand. Shakera's mother had a beautiful ceremony planned in Florida the next day, and now the wedding was in danger of being canceled. Embarrassed and anxious, Juan told Shakera and her mother about the situation.³⁹

Juan then came up with the idea of calling a local radio station to ask for help. He and Shakera's family continue praying, hoping the CD case will turn up. For the radio ad, Juan told the public that he would give a cash reward to whoever could return the documents

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Ibid.

³⁸ Raygoza, Juan, Oral History Interview by Chris Cuellar.

³⁹ Ibid.

he needed to accompany his wife to the United States for their second wedding.⁴⁰ Five minutes before they were supposed to leave for the ceremony in Monterrey, there was still no word. At this point, Juan mentions that he had prayed and promised that if he found his documents, he would give the people who brought them back to him all the money he had in his wallet, which was one hundred dollars. Juan's neighbor told him two men were looking for him and said they were there to return his CD case. Juan described the man as very humble, and he was surprised to find that the cash reward was one hundred dollars.⁴¹

Juan and Shakera Raygoza got married on December 21, 2004 (Figure 3.3). Shakera relocated to Utah to be with Juan and started work at the orthopedics and neurology floor of the Utah Valley Regional Medical Center in Provo, Utah.⁴² Juan and Shakera's life was about to change with the birth of their first child, little Shakera. They weren't practicing farming at the time, but when Shakera showed interest in feeding their daughter home-grown produce, they started looking into gardening. Eventually, that would lead to an even more significant interest in farming, with more opportunities to expand their family farm.



Figure 3.3 Wedding Photo of Juan and Shakera December 21, 2004.

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Raygoza, Shakera, Oral History Interview by Alexis Arizpe and Cristina Garza.

In 2007 they moved to Rio Grande Valley (RGV).⁴³ This decision was made partly because they realized it would be tough for Juan's parents to travel to Utah from Saltillo to visit them and their granddaughter. Juan also kept in mind that Shakera didn't know Spanish and wouldn't want to put her in that position with a language barrier. So, the RGV seemed the perfect fit! Days before his mother's birthday, September 5th, Juan and Shakera, with their baby, Little Shakera, rented a small but cozy apartment in Weslaco, Texas.⁴⁴ Juan's parents would frequently visit every two or three months and help around the farm. In 2010, after Juan graduated with his master's degree, they purchased a home in Weslaco, and their farm grew a little more.⁴⁵ Their family was also growing, with two more children in their future.

Family Life

Together, Juan and Shakera raise their children at the farm, where they stay connected to nature. Juan tells us that many in his life were named Juan Manuel, and he finds humor in feeling pressured by his family to continue the traditional name for his future son.⁴⁶ Still, Juan and Shakera constructed their children's names to their liking; Shakera (Little Shake), Kanani, and Andres.

Little Shakera is Juan and Shakera's firstborn, who is sixteen years old. She happens to be a bit of a farmer herself. Her duties for the farm include transplanting, soil mixtures, and how to raise chickens, goats, and sheep.⁴⁷ She also takes great joy in cooking with various vegetables and weeds that many views as intimidating.⁴⁸ Little Shakera is also knowledgeable about pollinators and the flowers best for them. She plans on continuing this sustainable lifestyle as an adult by having a garden and being a chef.⁴⁹ She mentions that one of her favorite meals to make is eggplant parmesan.

[Insert figure 3.9 here]

Kanani Raygoza is Juan and Shakera's second daughter, who is thirteen years old. She is currently in eighth grade at South Middle School in Edinburg, Texas.⁵⁰ She tells us her favorite subject in school is now science, but this wasn't the case last year. She is also in basketball, and although she enjoys it, she doesn't think she will stick to it in high school. She seems more inclined towards science now, which is not surprising given her parents' trajectory. Kanani also enjoys living on the farm because of the space. She tells us that the

⁴³Raygoza, Juan, Oral History Interview by Chris Cuellar.

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ Ibid.

⁴⁷ Raygoza, Shakera "Little Shake", Oral History Interview by Dina Morales and Ana Gutierrez.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Raygoza, Kanani, Oral History Interview by Natalia Perez.

area allows her and her siblings to ride around with their bikes. She enjoys inviting her friends because they also experience the open air and beautiful sunsets the farm offers (Figure 3.4). She does admit that a drawback of living on the farm is more that the work on the farm is time-consuming. She tends to notice this more when they must leave somewhere, but her parents need to close the farm or “close shop” before leaving. This process takes a long time, but she understands their responsibility to their farm.⁵¹



Figure 3.4 Sunset on Terra Preta Farm.

Kanani says she started helping on the farm when she was approximately six or seven. Her duties on the farm consisted of picking the produce, washing it, and packing it up for the farmer's market.⁵² She tells us one of her and her siblings' responsibilities was the monetary transactions when her parents left them in charge of the booth at the farmers' market. This made her feel like she was a little manager.⁵³[Insert figure 3.5 here] Her duties have changed since the market days. She is now busier with school but does make time to help on the weekends. She mentions transplanting and picking stuff up around the farm but would like to hang out outside more like they do in the summer.⁵⁴

⁵¹ Ibid.

⁵² Ibid.

⁵³ Ibid.

⁵⁴ Ibid.



Figure 3.5/3.6 Yellow and purple cauliflower grown at Terra Preta Farm.



Her memories are filled with fields that were growing tomatoes, radishes, bell peppers, jalapenos, lettuce, spinach, cabbage, cauliflower, broccoli, and more. They also produce various fruits and vegetables, including the traditional orange carrot with different color varieties like yellow and purple. She also mentions growing white and purple cauliflowers.⁵⁵ She would like her parents to grow more fruits, like strawberries. They are currently growing grapes, mulberries, papaya, and bananas.⁵⁶



Figure 3.7 Kanani on the register at the Farmers Market, pictured with Andres in the background managing the produce boxes.



Figure 3.8 Banana tree at Terra Preta Farm – Canton Road location.

⁵⁵ Ibid.

⁵⁶ Ibid.

She tells us about the animals they have raised on the farm, and some of her favorites were sheep, one in specific was *Canelo* (masculine word for cinnamon in Spanish), and chickens. They sold the sheep on the farm because of high maintenance costs. The sheep would help the farm by fertilizing the area. Before, when they had sheep and goats, they allowed them to walk around the site, and then they would grow food there.⁵⁷ Now since they no longer have goats or sheep, they use chickens. She mentions a chicken tractor that moves the chickens around different areas. The chickens are used in developing more grassy areas. She says they leave the chickens in one place where they walk around, eat and poop. This then fertilizes the soil and helps grass grow better.⁵⁸

As we can see, at her young age, Kanani already knows so much about farming and caring for crops and farm animals. She admits that working at the farm requires much hard work and doesn't know if she can commit to something so big. Her vision is to make this farming environment more accessible to the community by partnering with schools to teach and initiate gardens and lectures on growing your food.⁵⁹

The arrival of Juan and Shakera's third child, Andres Raygoza, was not a standard hospital delivery; Shakera always wanted a natural birth without anesthesia. She felt she was not fully supported or comfortable at the hospital.⁶⁰ In hospitals, they provide many medications to ease the pain. However, in many instances, these can harm both mother and child. Several of her friends had homebirths and told her how good the experience was for them. She contacted the Holy Family Birthing Center in Weslaco, Texas, to get more information. Fortunately, one of their farm interns was also working at the Holy Family Birthing Center. This made Shakera feel even more comfortable. The two older daughters, Shakera and Kanani, were delivered through natural births, but she did receive epidurals.⁶¹

Andres, however, arrived through a water birth, entirely natural. Andres is currently nine years old and is a 4th grader at Gorena Elementary School. His favorite subject is math, but he also enjoys visual arts like painting, drawing, and robotics.⁶² Some of his farm duties include collecting fresh eggs from the chickens and transplanting and picking out the weeds.⁶³

As their kids grew, Juan and Shakera knew they wanted to incorporate Juan's Hispanic culture and language into their everyday lives. Shakera learned Spanish, and they did their best to only speak to their children in Spanish when they were younger. However,

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Raygoza, Shakera, Oral History Interview by Alexis Arizpe and Cristina Garza.

⁶¹ Ibid.

⁶² Raygoza, Andres, Oral History Interview by Matthew Ryan Martinez.

⁶³ Ibid.

with school, it was difficult for the children to only communicate in Spanish. However, they fully understand Spanish and still practice the language every time Juan's family visits and every so often at home with their parents.⁶⁴



Figure 3.9 Greenhouse on the Canton Road property.

⁶⁴ Raygoza, Shakera, Oral History Interview by Alexis Arizpe and Cristina Garza.

Shakera has been accustomed to many new things throughout her life ever since she met Juan, but she is grateful and happy for it. From learning a new language to moving to South Texas, specifically the Lower Rio Grande Valley, and experiencing the rich Hispanic culture, she also had to learn how to farm and keeps learning every day.

She worked for many years as a registered nurse in Provo, Utah, and in the RGV. However, now she dedicates her full time to their own farming business. She plays different roles on the farm, from managing logistics to working with buyers, working on inventory updates, and packing the shed. Shakera is always putting her entire effort into keeping the farm running. She always ensures they are following organic farming standards and food safety guidelines. Shakera also manages all the certification paperwork required for inspections to have an organic farm.⁶⁵ Recently, she has overseen their smaller garden plot, where she manages production and controls the greenhouse production for the transplants. These are tiny seedlings that they use to place on the ground outside, which are first grown inside a greenhouse (see figure 3.9 and 3.10).



Figure 3.10 Seedlings prepared for transplantation at Terra Preta Farm.

⁶⁵ Ibid.

She is a great worker and loves what she does. One of her favorite parts is to eat the fruits of her labor. All the harvesting is always so rewarding, and she loves to use fresh organic vegetables to prepare meals for her family.

Shakera likes to be outside and active in her community. At farmers' markets, she sells their produce and meets new people and other vendors. Joining the farmer's market was Juan's idea. He suggested this idea to Shakera because early on, when they produced and harvested their vegetables on their small garden plot, the quantities were large, and they could not eat them all or put them all to use themselves, so they took the remaining produce to the market to sell.

Over the years, the volume of their harvests has increased much more. They do a wholesale model instead of selling at traditional farmer's markets. However, the memories and friends they made at these events are exceptional, and they make every effort to keep in touch with other farmers. Shakera's and Juan's hard work sets an excellent example for their children, encouraging them to help around the farm and work as a family. The children usually help with the chickens, collect eggs, and feed them. During the weekends, they stay outside longer and enjoy helping around the farm and putting the seedlings on the ground.

Farming and Family Life

Juan and Shakera's journey to sustainable, organic farming began in an apartment in Weslaco, Texas. In 2007, after moving from Utah to Weslaco a year after the birth of their daughter Shakera, they rented a two-bedroom apartment in Weslaco where they both were looking for new work. After about a week, Juan got a call from Pioneer Seed Company and worked there for a year. Although Juan had the job of monitoring the tasseling of corn, sustainable agriculture was always in the back of his mind. Juan had been working with commercial growers who use many chemicals in their greenhouses. They decided to start a small garden in front of their apartment in the Citrus Center. They even used their parking spot to build a small greenhouse and grow tomatoes. This soon developed into a small but productive garden.

Juan then negotiated with a neighbor, Mr. Broccard, who owned an empty lot next door, and asked if they could use a small piece of land to grow an organic vegetable garden, and Mr. Broccard agreed. According to Shakera, Mr. Broccard liked and tended to the garden independently.⁶⁶

With the success of their first garden, Shakera and Juan decided to expand by renting some land in and then later rented 3 acres of land in Weslaco, Texas. Later they rented land in Donna, TX, before purchasing a small acreage in Edinburg, Texas in 2010. That same

⁶⁶ Raygoza, Shakera, Oral History Interview by Alexis Arizpe and Cristina Garza.

year, Juan graduated from A&M Kingsville with his master's degree in Plant and Soil Science. He worked for an organic citrus farmer in Mission for another year after graduation. At this point, Shakera and Juan were also working on the land they were renting. Shakera had gotten more involved in planting and harvesting. They named it Terra Preta Farm to signify and highlight that healthy plants come from healthy dark soil.⁶⁷ The belief is that organic farming produces benefits that nourish the earth with the necessary nutrients for the bountiful growth of fruits and vegetables.

In 2012, Imelda Moreno was looking into organic farming because she had inherited a parcel of land on Rogers Road in Edinburg, Texas next to Memorial Middle School. She was interested in organics because of the proximity of children to the land they used to plant on. She found Juan Raygoza and explained the history behind the 20-acre land and the lack of chemicals used on the soil. At the time, the ground was very uneven and had trees and brush on the property. Juan was very interested, given that the land appeared to be chemical-free. However, he had just purchased another small property in Edinburg, Texas, off Canton Rd. For the next couple of years, Juan helped clear and level the land. Imelda's wish had always been to turn the land into a farm or ranch, and Juan was the person she wanted to build the organic farm. Since property taxes were high, she was given a tax waiver for 2-3 years to give him time to clear the brush and level the land to prepare it for farming. To keep the tax break, Imelda and Juan agreed that he would clear the land enough to be considered a farm, and she would keep the taxes from going up.

Eventually, Juan and Shakera wanted to build a home on the land, but they could not afford to purchase the land from Imelda. They were not allowed to build their home because the land was still under Imelda's name. Therefore, Juan and Shakera decided to buy it from Imelda acre by acre. Once the land became theirs legally, they could apply for grants to help the farm. The land was very uneven and needed much work before it could function as it is now. Juan was building their house from the ground up while they were still living in Weslaco. While the house was being built, someone broke into the home, and Juan had to sleep in the unbuilt house in case the thieves returned. He spent days sleeping in the house without doors in the cold to prevent future theft. Eventually, the house was completed, and the land has been organically certified for about eight years.

They called their farm *Terra Preta* Farm, a Portuguese phrase that means "black earth." Dark soil equates to rich nourishing soil. The belief is that organic and sustainable farming produces benefits that nourishes the earth with the necessary nutrients for the bountiful growth of fruits and vegetables. Juan wants to grow organic food for his children after seeing how many chemicals are used in the current commercial farming industry.

⁶⁷ Ibid.

In 2012 while Shakera was working, Juan was farming on his own, and he was offered a job by Amelia Sanchez, an Agronomist from Mexico who was running the Beginning Farmer Program. She wanted someone to teach people about farming; as of 2022, he has been there for almost 11 years. He teaches people how to begin farming and because of his personal experience, he can give insight into what to do and what not to do when starting a new farm.

Community Bond within the Farmers' Market

Juan and Shakera started to grow more produce than their family could eat, so they started selling it at local farmers' markets. A friend named Heather helped Juan and Shakera rinse the produce to package and sell. They were selling up to three times a week at farmers' markets. There was a large market for organic foods then because grocery stores didn't carry much. People were interested in purchasing their organic foods. As a testament to their reputation, one of the market managers took all of his friends to the market to buy locally sourced, organic foods from Juan and Shakera.⁶⁸

The farmers' market community was very welcoming to the Raygozas. They built lasting friendships with the other vendors, and instead of a competitiveness with each other, they learned and worked together.⁶⁹ Silia Robles, a member of the Community Supported Agriculture or CSA, met Juan and Shakera in 2010 at a farmer's market at the McAllen Library. She was looking for a different lifestyle and was very interested in having access to locally grown foods. She was learning about organics, environmental toxins, and the effects of pesticides and herbicides on children. She has supported local growers and the Raygoza's for about ten years. She has worked with the Raygoza's and other farms in creating weekly boxes for pickup in different locations.⁶⁹

Amanda (Mandy) Ramirez with the Sentil Center for Regenerative Agriculture met Juan and Shakera at the McAllen farmers' market at the McAllen Library and has supported them for over 10 years. During the 2020 pandemic, farmers' markets were closed, and farmers could not get their products out to the people, so Mandy and Shakera came up with the produce box ideas. They gathered produce from local farmers and made it a subscription box for people to purchase and pick up.

The Raygoza family got up every day at 7:30 am to pick up the vegetables from the farm and travel to the McAllen market at the McAllen Library.⁷⁰ This required a family effort to get the produce and tables set up for sale. Their daughter Kanani remembers helping sell the product when her parents had to step away from the table and calculate the

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Ibid.

prices for the customers. All three children, Shakera, Kanani, and Andres, helped at the farmers' market and would talk with other vendors. Afterward, they shopped, went to the library, and bought sweets such as ice cream, cake, and pies. They have fond memories of their past times and still share the friendship and community with those at the McAllen Farmers' market.

The decision to start a garden and grow food brought great opportunities for Juan and Shakera. He is now growing organic food for his family and the community as well as teaching others about farming thanks to the opportunity Amelia Sanchez presented him with. Juan's reasons for starting an organic farm have always been to provide safer food options for his family. He wants his children to grow healthy and strong with pesticide-free food that won't harm them. He was strongly guided by his family history of agriculture, as he wanted to continue the tradition. Finally, Juan has always wished to preserve and nurture nature. Juan is a man who goes about his passions in the best ways possible and in ways that will shape a positive future for him and the people around him.

Diet and Recipes

At the interview in October of 2022, Shakera mentioned they were all on a vegetarian diet for the past eight or nine years for health and environmental reasons. They are slowly trying to incorporate meat into their diet, but it has been a slow transition. Little Andres has been a vegetarian since birth and struggles to accept meat the most. For this reason, Shakera, and the rest of the family, are still primarily vegetarians, and Juan is the only one that's been eating meat for about eight months.⁷¹

They use many recipes regularly with the produce they grow on their farm. Shakera makes vegetable lasagna with zucchini and eggplant accompanied by steamed okra, tomatoes, onions, and sautéed green beans. In the cooler weather, they will eat more roots, such as carrots, radishes, beets, and leeks. Shakera seasons and bakes them in the oven for a quick and easy meal. Kanani recalls making cauliflower pizza with the purple cauliflower that they grow. They make other dishes such as stir fry, eggplant parmesan, roasted cauliflower, and cauliflower bites. They even started a newsletter where they share their recipes. Families bring their children to the farm to learn about farming. Their website offers a tab for recipes that they recommend, such as Eggplant Parmesan, Eggplant Roll-ups, and Honey Garlic Grilled Egg Plant. The website, <https://terrapretafarm.com/>, links yummy, cruelty-free vegetarian recipes they enjoy, so their customers know how to use organic produce at home.

Shakera and Juan's children were born within this farming environment and have followed a very natural lifestyle where they value the work that goes into producing good

⁷¹ Ibid.

quality food. The kids take homemade food to school, which Shakera prepares earlier that morning. Shakera, Kanani, and Andres mention that they eat very differently from their classmates, and a lot of them have never tried some of the vegetables they are used to eating.⁷²

Family customs are very similar to those of Mexican-Hispanic American households. They practice many traditional American and Mexican traditions like Thanksgiving and Día de Los Reyes Magos. Shakera admits the family gets excited about January 6th, for they all gather around to cut the colorful sweet bread that adorns a full table, known traditionally to *Mexicanos* as a “*Rosca de Reyes*.” This Rosca has a magical and fun element in which the children love participating.⁷³ Baked within a “Rosca de Reyes” are a few tiny plastic baby Jesus Christ figurines. When the loaf is eventually divided into many parts for everyone to share, one of those shares contains a small figurine. It is tradition for whoever gets the baby figurine to buy lunch for everyone sometime next month in February.

The family enjoys and celebrates other holidays, including Christmas and Easter. They stay in touch with their family by visiting or hosting them at the farm. Shakera admits their family is a big help; having them around has helped her and the children learn and speak Spanish. The language barrier has been slowly breaking for Shakera and the three children. Shakera tells us that the children mostly speak English at home but have learned more Spanish from their grandparents when they visited them in Mexico.⁷⁴

They practice sustainability with their eating habits by consuming the goods the farm provides. The family has shared the variety of vegetables they grow as well as the creative ways they incorporate them into their meals. The children take the lunches that Shakera freshly makes to school every morning. She has posted her recipes of their favorite meals on their webpage! (See figure 3.11)

Shakera is educated as a nurse but admits she enjoys being a farmer more. Although Juan dedicates his time entirely to the farm and teaching, Shakera keeps a part-time job as a technical assistance provider for the National Young Farmers Coalition. She works one or two shifts daily, depending on the farm's workload. Shakera tells us she was not sure the kids would enjoy farming since it's intense labor for them. To prepare for the farmer's market, they had to harvest and prewash the vegetables to be sold. They were both surprised to see how much their children loved attending and participating at the farmer's market. Although they no longer attend farmers' markets, they are thankful for the relationships they built there and they maintain their connection with other local farmers/vendors. They have developed contracts with commercial businesses thanks to the growing demand for organic

⁷² Raygoza, Andres, Oral History Interview by Matthew Ryan Martinez.

⁷³ Raygoza, Shakera, Oral History Interview by Alexis Arizpe and Cristina Garza.

⁷⁴ Ibid.

food. *Terra Preta* Farm continues to grow and provide fresh produce to the local community. Since their early participation at farmer’s

allrecipes

Eggplant Parmesan

This easy eggplant Parmesan recipe has layers of crispy, breaded eggplant slices that have been baked, instead of fried. The combination of crunchy bread crumbs, tomato sauce, mozzarella, and Parmesan cheese is guaranteed to please!

Recipe by **Dolores Gentner-Ryan** | Updated on September 30, 2022

Prep Time: 25 mins
Cook Time: 35 mins
Total Time: 1 hrs

Ingredients

- 3 large eggplant, peeled and thinly sliced
- 2 large eggs, beaten
- 4 cups Italian seasoned bread crumbs
- 6 cups spaghetti sauce, divided
- 1 (16 ounce) package mozzarella cheese, shredded and divided
- ½ cup grated Parmesan cheese, divided
- ½ teaspoon dried basil

Directions

Step 1
Preheat the oven to 350 degrees F (175 degrees C).

Step 2
Dip eggplant slices in beaten egg, then in bread crumbs to coat. Place in a single layer on a baking sheet.

Step 3
Bake in the preheated oven for 5 minutes. Flip and bake for 5 more minutes.

Step 4
Spread spaghetti sauce to cover the bottom of a 9x13-inch baking dish. Place a layer of eggplant slices in the sauce. Sprinkle with mozzarella and Parmesan cheeses. Repeat layers with remaining sauce, eggplant, and cheese, ending with a cheese layer. Sprinkle basil on top.

Step 5
Bake in the preheated oven until golden brown, about 35 minutes.

Nutrition Facts

Per serving: 487 calories; total fat 16g; saturated fat 7g; cholesterol 73mg; sodium 1663mg; total carbohydrate 62g; dietary fiber 9g; total sugar 20g; protein 24g; vitamin c 5mg; calcium 512mg; iron 4mg; potassium 815mg

Figure 3.11 Eggplant Parmesan Recipe from Terra Preta website – link to [allrecipes.com](https://www.allrecipes.com/recipe/238551/eggplant-parmesan/)



Figure 3.12 features the Raygoza Family from left to right: Little Shaker, Shaker, Andres, Kanani, and Juan Raygoza.

markets, they have grown their business to cover larger commercial fields by partnering with local hospitals like Doctors Hospital at Renaissance and local restaurants like House Wine. The Monitor newspaper also released an article that features recipes with *Terra Preta* Farm's organic produce. Juan wants organic farming to be the future of the RGV because he knows this will allow us to have a better environment. Their organic and sustainable farm is rich in natural wildlife and resources. They have seen various animals, insects, and more living on their farm. Little Shake mentions catching walking sticks, lizards, grasshoppers, spiders, and snakes.⁷⁵ She recalls moments when garden snakes jumped out and scared her friends who were visiting. Nonetheless, thanks to their parents, they are all well equipped with the skills and knowledge to navigate living life at the Terra Preta Farm.



Figure 3.13 The Monitor Newspaper article about Terra Preta Farm and their partnership with Doctor's Hospital at Renaissance (DHR).

⁷⁵ Raygoza, Shakera "Little Shake", Oral History Interview by Dina Morales and Ana Gutierrez.

in Raygoza, 35, originally set out to grow healthier food for his family using sustainable and organic practices. His dream, sprouted with a few plants in his apartment, has grown into the 7-acre, organic-certified Terra Petra Farm in east Edinburg. Valleyites can make an up-front investment and receive boxes of vegetables after the harvest via a community-supported agriculture.

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EATING LOCAL

A different direction

Terra Petra Farm provides more than 30 varieties of vegetables to Valley residents, restaurants

BY DANIEL A. FLORES
STAFF WRITER

The certified organic Terra Petra Farm was conceived when Juan Raygoza, 35, had his first daughter.

"You want to give them the best, and I started thinking about food," Raygoza said.

Terra Petra Farm, located on East Canton Road in Edinburg, is a 7-acre compound with a more-than-300,000-gallon pond and drip irrigation system controlling each row of produce.

As a degree-holding agronomist, he was taught conventional methods — flood irrigation and the use of synthetic chemicals to feed and protect plants. Working in the private industry opened his eyes, he said.

"We need to grow food without the use of chemicals," he said, standing between nearly two acres of rows of growing vegetables. "The mission is to mainly provide good quality food and avoid the usage of chemicals so our water and air are cleaner."

Raygoza said sustainable, organic farming practices weren't common when he came to the Rio Grande Valley in 2007.

"I remember it was hard to find other people doing this. It was hard to find a farmers' market," said Raygoza, who relies on these locally organized opportunities for sporadic income. "From then to now, there are several farmers' markets ... and small farmers growing this



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Raygoza holds an undersized, fresh-cut purple cauliflower remaining after the harvest. The specialty veggies fetch between \$3 to \$4 a piece. You won't find these in supermarkets, he said.

kind of food ... in the Valley." But Raygoza has people shifting to getting more involved in the process of growing food.

"They're getting more aware of eating healthier and how it affects you," said Raygoza, who faces struggles with finances

and the elements to engage in sustainable practices. "We want to bring the soils back to life so we have healthier plants and healthier people."

Raygoza would not only welcome competition, but actively encourages more organic farm-

ing. His vision is providing a better future for his kids and future generations, he said.

Several volunteers have shadowed the team to learn about his practices.

"Honestly, I would love to see the Valley just growing organic vegetables and full of organic farmers (to) have a better environment here," Raygoza said.

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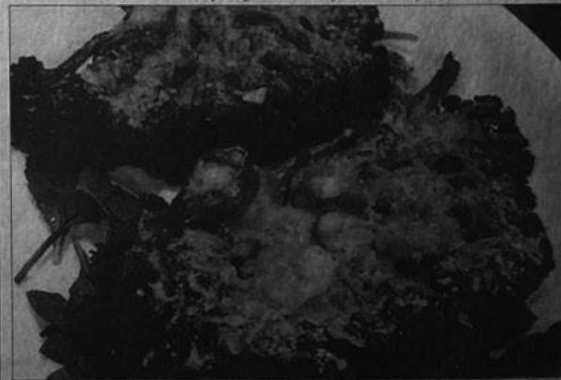
pasta sauce. For the cream sauce: Melt butter in a medium skillet over medium heat. Add heavy cream, a pinch of salt. Bring to a boil, reduce heat, simmer for 10 minutes (pictured below).

— Larry Delgado, local chef and owner of House, Wine, and SALT

GRILLED CAULIFLOWER STEAK

2 Medium heads of
Terra Petra cauliflower
2 ounces Extra Virgin
Olive Oil
2 tablespoons steak
seasoning
1 ounce unsalted butter
1 cup heavy cream
6 ounces of shredded
parmesan cheese
6 tablespoons of
unseasoned bread
crumbs

Slice three 1-inch thick cross-sections out of the center of each cauliflower. The "steaks" must have enough stalk on them to hold the florets together. Brush the steaks on both sides with extra virgin olive oil and season to taste with your favorite seasoning. Place the steaks on a 500-degree grill for 4 minutes, flip steak and grill for 4 minutes more. Remove from the grill and transfer to a baking sheet. Top with 1oz cream sauce, 1oz shredded parmesan cheese, and 1 tablespoon toasted bread crumbs. Bake in a 400 degree oven for 5 minutes or until cheese melts. Serve hot over a dollop of your favorite



Grilled cauliflower steak images courtesy of Larry Delgado

"Honestly, I would love to see the Valley just growing organic vegetables and full of organic farmers (to) have a better environment here."

— Juan Raygoza

Figure 3.14 The Monitor Newspaper article about Terra Petra Farm and the variety of produce that they grow. Note the recipe from local chef Larry Delgado, owner of House Wine and SALT restaurants.

Chapter 4: Organic/Urban Farming

Chris Cuellar, Mathew W. Martinez, Joseph Rabago & Diego Rivera

Introduction

The greatest advantage of a modern supermarket is that customers have many options to choose from many products. One section where more options are appearing is the produce area. There have been multiple choices for several fruits and vegetables, but more recently there is a new dichotomy of traditional products and items that are labeled organic. This option in the produce section sparked several questions such as: What are organic products? Are organic farms different from traditional agricultural farms and why do they cost more? Here these questions are answered by taking a deep dive into what constitutes an Organic Farm.

Urban Farming – UTRGV SARA Project

The University of Texas Rio Grande Valley SARA project is a project that was created to support the development of the agricultural economy in the Lower Rio Grande Valley. SARA is an acronym for Sustainable Agriculture and Rural Advancement and this project accomplishes its goals by connecting the rural and agricultural communities with the resources and intellectual capital of the University.¹

This plan, as its name suggests, focuses on sustainable agriculture so local farmers can produce healthy fruits and vegetables that are safe for human consumption to ensure that their methods are safe for the earth. The methods used in sustainable agriculture are intended to protect the environment, expand the earth's natural resource base, and improve soil fertility.² An example of sustainable agriculture is organic farming. This practice focuses on food that is both grown and processed without synthetic fertilizers or pesticides. However, pesticides derived from natural sources such as biological pesticides may be used in producing organically grown food.³

The SARA project has three units that when joined together have the potential to support the rural community of the Rio Grande Valley. The groups are outreach, education, and research. The outreach program includes activities that provide training, technical assistance, and on-to-one mentoring from agricultural producers, rural businesses and non-profit groups and cooperatives. Some examples of the outreach unit include the Texas Rural

¹ *Center for Sustainable Agriculture and Rural Advancement*, Catalina Resto, "UTRGV", accessed on November 09, 2022, <https://www.utrgv.edu/sara/>

² *Sustainable Agriculture*, National Institute of Food & Agriculture, accessed on November 09, 2022, <https://www.nifa.usda.gov/topics/sustainable-agriculture>

³ *Organic Farming*, Environmental Protection Agency, accessed on November 09, 2022, <https://www.epa.gov/agriculture/forms/contact-us-about-agriculture>.

Cooperative Center (TRCC). This program exists to improve the economic conditions, expansion, and operations of rural businesses.⁴

Another outreach program is the Socially Disadvantaged Groups Grant (SDGG). This grant is a collaboration with Rural Development, a branch of the U.S. Department of Agriculture whose main objective is to provide technical assistance to socially disadvantaged groups through cooperatives and cooperative development centers. This grant has funding of up to \$3,000,000 and can be used for feasibility studies, business plans, strategic planning, and leadership training.⁵

The South Texas Striking Force for Beginning Farmers and Ranchers (BFRDDP) is another SARA outreach program that focuses on enhancing the sustainability of new farmers and ranchers by helping them to successfully direct market their produce and agricultural products in South Texas. UTRGV is the recipient institution for this grant. It started with its legacy institution, The University of Texas Pan-American, and since its inception in 2001, the university has collaborated with over fifty projects with the USDA to help beginning farmers and ranchers.⁶

The next unit is Education. The SARA project serves as a platform that connects UTRGV's interdisciplinary degrees with sustainable agriculture. For example, the bachelor's degree of science in Sustainable Agriculture and Food Systems (SAFS) prepares students for a broad range of careers related to agricultural production and food system management, as well as economic policy and analysis.⁷ Moreover, if students want to continue their education, SARA collaborates with the university to offer students an opportunity to pursue a master's degree in Agricultural Environment and Sustainability Science (AESS). This career path includes opportunities with research, education, and community engagement.⁸

The last component of the SARA project is research. Investigation in the field of sustainable agriculture is the primary focus of the program, which seeks ways to improve the techniques and technologies that can benefit farmers around the world. Some of their most recent publications include *Compost and Biochar to Promote Soil Biological Activities*

⁴ *UTRGV Texas Rural Cooperative Center*, The University of Texas Rio Grande, accessed on November 09, 2022, <https://www.facebook.com/TexasRuralCooperativeCenter>.

⁵ *Socially – Disadvantaged Groups Grant*, U.S. Department of Agriculture, accessed on November 09, 2022, <https://www.rd.usda.gov/programs-services/business-programs/socially-disadvantaged-groups-grant>.

⁶ *UTPA Southwest Texas Strikeforce Initiative for Beginning Farmers and Ranchers*, Juan M. Raygoza, United States Department of Agriculture, accessed on November 09, 2022, <https://portal.nifa.usda.gov/web/crisprojectpages/1007289-south-west-texas-strikeforce-initiative-for-beginning-farmers-and-ranchers.html>

⁷ *School of Earth, Environmental and Marine Sciences*, Alex Racelis, The University of Texas Rio Grande Valley, accessed on November 09, 2022, <https://www.utrgv.edu/agroecology/about/undergrad-program/index.htm>.

⁸ *Center for Sustainable Agriculture and Rural Advancement*, Catalina Resto, "UTRGV", accessed on November 09, 2022, <https://www.utrgv.edu/sara/>

under Sweet Potatoes Cultivation in a Subtropical Semiarid Region. This research was conducted in 2018, and its purpose was to find out if the nutrients in the soil of our region could be restored during the summer months, (which are the months that farmers don't grow anything because of high temperatures) by cultivating sweet potatoes alongside drip irrigation. The result of this research was that it absolutely helps the soil to keep its nutrients if farmers grow sweet potatoes during the hottest months of the year.⁹

The Center for Sustainable Agriculture and Rural Advancement is a resource that connects farmers with the assets of UTRGV. This project not only provides educational opportunities for students but for anyone that wants to learn and work with sustainable and organic farming. The next section in our chapter will take a closer look at the resources available for beginning farmers and ranchers.

Urban Farming – Beginning Farmers & Ranchers

With the average age of farmers skewing to an older population at an average of 59, studying and focusing on beginning farmers and ranchers is crucial.¹⁰ Farmers and agriculture play a crucial role in providing the country's food and provide valuable jobs to many and can be especially important in rural areas. One of these important new farmers and ranchers is the one focus of our research as a part of the UTRGV course “Discovering the Rio Grande Valley”, the Raygoza family and their organic farm, Terra Preta. It is crucial to understand how the Raygozas and other farms begin, what their biggest obstacles are, and the finances required.

The USDA defines beginning farmers and ranchers as farms and ranches that have begun operation within 10 years. Their demographic tends to be younger than established farmers and operate smaller plots and operations. The USDA has a broad definition of farm as “any place from which \$11,000 or more agricultural products were produced and sold, or normally would have been sold ..”, this definition would include many farms and farmers that do not rely on farming as a means of living but serves other purposes or is supplementary.¹¹ Beginning farms make up only a small amount of United States farms at about 10%.¹² This is not to say that all beginning farmers and ranchers commercialize or receive the majority of their income from farming. In fact, 32% of all beginning farmers do not report production and are not interested in commercializing their crops instead moving into farming for “residential amenities”.¹³ The obstacles that people may face in starting a

⁹ Center for Sustainable Agriculture and Rural Advancement, Catalina Resto, “UTRGV”, accessed on November 09, 2022, <https://www.utrgv.edu/sara/>

¹⁰ Sid Miller, “Texas Ag Stats.” Texas Department of Agriculture (2022), <https://www.texasagriculture.gov/About/Texas-Ag-Stats>

¹¹ N.d, “Farms and Land in Farms 2019 Summary.” USDA (2020), https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0822.pdf.

¹² Mary Ahearn, “Beginning Farmers and Ranchers at a Glance,” USDA (2017), <https://www.usda.gov/media/blog/2013/01/30/beginning-farmers-and-ranchers-glance>.

¹³ *Ibid*, 8

farm, however, are numerous and require many resources. One obvious, but difficult hurdle to begin farming is obtaining viable and affordable land. According to the USDA Land Values Summary for beginning farmers and ranchers puts the national average cost per acre of farm real estate value at \$3,800 per acre and cropland at \$5,050 per acre.¹⁴ With high starting costs and limited land farming is difficult to enter. There are, however, resources that aid those seeking to begin a farm. Starting costs also include costly tools needed to begin farming. One of the crucial bodies that aids these farmers and ranchers is the USDA. Only when farms begin grossing at least \$50,000 in production do most farms make a profit according to a USDA source.¹⁵

The USDA informational source aimed at beginning farmers and ranchers put the amount spent on the Farms Credit System at a total of \$10.4 billion and has continued to grow¹⁶. The USDA offers aid to beginning farmers through programs such as the Farms Service Agency and the Natural Resources Conservation Service. These loans and aid can help beginning farmers “provide access to land and capital”.¹⁷ If farmers survive the difficulties of the startup they enter a field with a higher than national average wage of \$67,609, averaging between \$87,004 and \$90,866 depending on the amount of income coming from other sources not including farming.¹⁸ Many small new organic farms and ranches nationally also receive a large part of their incomes from livestock especially poultry.

With this knowledge of the general requirements to start a farm, some of the troubles and finances required it is key to see how this is affected and is tied into how the Raygoza farm got its start. The Raygozas farm really began with a common vision and dream held by both Juan and Shakera to provide clean, sustainable, and nutritious food to their family and community. Juan’s connections to farming also run deep with a history of agriculture in his family as his father and uncle both worked at a prominent agricultural university in Mexico “Autonóma Agraria Antonio Narro”, with his uncle being crucial in the cultivation of a popular strain of corn. At “Autonóma Agraria Antonio Narro”, Juan obtained a degree in Agronomy and later received his master’s from the University of Texas A&M at Kingsville.¹⁹ Juan and Shakera began farming in small plots from their apartment with the help of his family and gradually increased to their current Terra Preta farm. Soon after starting and producing more than they could eat themselves, they began selling their produce at local farmers’ markets, and now run a much bigger operation selling many of their produce to local places like hospitals and restaurants.

14 N.d, “*Land Values 2022 Summary*”, USDA (2022),

https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0822.pdf.

15. Mary Ahearn, “*Beginning Farmers and Ranchers at a Glance*”, USDA (2017),

<https://www.usda.gov/media/blog/2013/01/30/beginning-farmers-and-ranchers-glance..1>

16. Ibid, 14

17. Ibid,22

18. Ibid, 8

19. Oral History, Christopher Cuellar, “*Interview with Juan Raygoza*”. UTRGV, November 6, 2022

With so much invested by beginning farmers like the Raygozas the question of how these families would prepare in case of disaster becomes prominent. Thankfully there exists aid like the programs that help beginning farmers from the USDA for aiding farmers in case of natural disasters and crop failure.²⁰ These programs aid in the form of benefits and compensation to a variety of farming problems like crop loss and livestock some of these natural disasters include disease and wildfires. Beginning farmers and ranchers, however, are less likely than established farmers to utilize these insurances.

Certified Organic Label – USDA

The United States Department of Agriculture (USDA) was established in 1862 by President Abraham Lincoln and serves a key role to farmers regarding food safety and many other functions throughout the country. The USDA is made up of 29 agencies and offices with 100,000 employees at 4,500 locations across the nation. One way to best understand the role and responsibilities of this vast and expansive body is to hear it from one of its current representatives. According to program outreach coordinator, Ruby De La Garza, the USDA's role is "[providing] leadership on food, agriculture, natural resources, rural development, nutrition "amongst other related issues such as organic certification."²¹ This federal department as well as organic certification are of especial importance to the small organic farmers like the Raygozas.

The organic certification process is a voluntary labeling process put into law by the Organic Food Production Act of 1990 (OFPA). Organic certification requires new organic farmers and ranchers to follow guidelines regarding "allowed and prohibited substances, protection from contamination and commingling, labeling, accreditation and record keeping".²² Perhaps most important, however, are the regulation of inputs such as insecticides, pesticides and synthetic fertilizers as well as the conservation of natural resources. Alternatives to these inputs include essential oils such as Neem oil used as an insect repellent, soaps and physical deterrents such as roll covers. There are 5 steps to organic certification according to Dr. Carol Goland of the Ohio Ecological Food and Farm Association. These steps are first application, pre inspection file review followed by inspection, post-inspection file review and lastly the certification process.²³

With this rigid and long process to organic certification required by the USDA, the positive aspects of this process become more important to consider. These include a premium price paid for organic and sustainable produce, greater health outcomes,

20 N.d, "Disaster Assistance Program.", USDA (2013), <https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/index>.

21 Ruby De La Garza, "U.S. Department of Agriculture, The People's Department", Presentation, UTRGV. (2022)

22 Carol Goland, "Organic Farming & Sustainable Agriculture", Presentation, Zoom. (2022)

23 *ibid*

conservation of the natural environment, more complete records and traceability of food (becomes especially important in contamination of dangerous bacteria like E.coli), greater than normal resilience to some problems of traditional farmers, increased sustainability of crucial soil and land as well as growing and constant consumer market.²⁴ Especially important to consider, however, are the benefits to farmers as switching to sustainable regenerative organic farming makes farmers more profitable on a per acre basis and more resilient to single crop failures that would be hard to overcome by traditional monocrop farms.²⁵

There are however some negative or rather challenging obstacles to organic certification. Most of the challenges to organic certification stem from the requirements and strict guidelines. This includes a three-year transition period (when income from farms is clearly affected), fewer tools allowed to be used and the maintenance of certification which may fluctuate. Other issues include higher amounts of labor required to limited tools, higher labor costs and the difficulty of access to organic alternative inputs.²⁶ This problem of limited inputs and preventative tools have also affected the Raygoza family in their efforts to remain and maintain organic certification. Juan recalled his struggles in dealing with pests on his crops; these pests include leafcutter ants and rabbits that are difficult to control without the methods of traditional farming that hurt the environment further. It is not only the guidelines that the Raygoza must follow to meet organic certification, but regulations on their processing and handling as well.

The USDA fills a necessary and crucial role for farmers. Through the guidelines and regulations that are needed by the USDA to obtain and maintain organic certification may be difficult, the positives greatly outweigh the obstacles as they not only aid the farmer but help ensure sustainability as well. A movement to organic farms like that owned by the Raygoza family is needed not only to benefit the health of families and communities, but the planet and environment as well and must be pursued and continued to be supported by bodies like the USDA.

Certified Organic Label – Health Benefits of Certified Organic Food

Insecticides, pesticides, and synthetic fertilizers have been staple inputs in traditional farming since the 1900s. These inputs are often meant to keep away pests, insects and overall protect plants from the outside elements while speeding up their harvest time and yield sizes. With their heavy and indiscriminate use of pesticides it becomes important to understand the effects and consequences of these chemicals on the environment, the soil, and the food it grows. The consequences of this traditional farming technique, at least here

²⁴ *ibid*

²⁵ Josh Tickell and Rebecca Tickell, *“Kiss The Ground”*, (2020)

²⁶ N.d, *“Challenges and Barriers to Certified Organic Production in Alabama.”*, Eorganic (2020), <https://eorganic.org/node/34351>

in the United States, are numerous and serious which are some of the major reasons that explain why switching to organic farming methods is a crucial needed step. Fortunately, farming families like the Raygozas are taking this crucial step while considering the consequences of heavy use of toxic inputs and their greater effects on health and the environment have made their farm and produce organic and free of restricted chemicals.

These toxic inputs have a devastating effect on the microorganisms that are found within soil and that aid in many of the key functions of plants and crops. As more and more inputs are incorporated into soil and then it is tilled, the amounts of microorganisms in the soil quickly decrease, lessening their ability to “hold onto nutrients “as well as their ability to convert important nutrients such as nitrogen into nitrates, a crucial part of plant growth.²⁷ Furthermore, microorganism decline lowers the overall fertility of soil and lowers yields in crops.

Consequently, global temperatures have risen while microbes in soil numbers have lowered greatly affecting soil and plant’s ability to pull carbon from the air, increasing the count in the atmosphere and contributing largely to the rise of greenhouse gasses which further affects other systems such as growing cycles as climate continues to change. Perhaps just as important, however, is how microorganisms have continued to be depleted in the soil due to the many inputs that are common today. In traditional farming practices, soil becomes less and less viable, changing from rich, dark healthy soil to lifeless dirt. This dirt is easily carried away by winds, reducing the amount of viable land and having lasting effects on local water cycles that put more pressure on already established and overused farmland in a process known as desertification.²⁸

With such devastating effects on the environment and the soil depended on by farmers, it is clear to see why the Raygoza family runs their farm according to organic standards. Though the health of the planet and soil are at the forefront of the organic and traditional farming discussion, another major idea that must be grappled with is what people are actually eating as many of the modern and widely available farmed produce that people consume every day does not meet organic certification, and therefore does not have a positive effect on the environment.

The Raygoza family eats mainly organic and home-grown dishes and they have been mostly vegetarian for eight years largely due to environmental reasons. The Raygozas have recently begun to transition back to eating small portions of meat, but this remains a slow gradual transition. Shakera Raygoza cooks many of the family's meals using their crops such as kale, beans, radishes, and a common favorite amongst them are carrots. Many of the meals that Shakera prepares are plant-based and made with the crops that they harvest on

27 Wasim Aktar, Dwaipayan Sengupta and Ashim Chowdhury, “*Impact of Pesticides Use in Agriculture: Their Benefits and Hazards.*”, NIH (2009), <https://doi.org/10.2478/v10102-009-0001-7>.

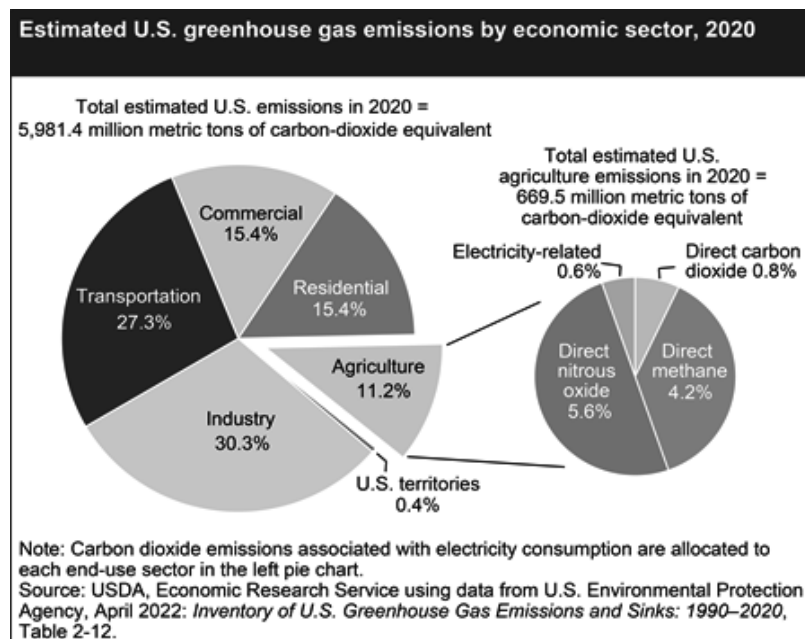
28 Josh Tickell and Rebecca Tickell, “*Kiss The Ground*”, (2020)

their farm throughout the year. These dishes range from a vegetable lasagna made of their own grown zucchini and eggplants (in November) to roasted root vegetables like beets and radishes in the winter.²⁹ On holidays, both Juan and Shakera incorporate meals from their cultural backgrounds and eat dishes like tamales and sweet potato pies during holidays like Christmas.

Organic production and produce has many benefits to the environment in the community. Taste is not one of these benefits. This is not to suggest they taste worse than regular commercial produce, but many studies have not yet found a substantial difference in flavor between the two. However, organic produce has been linked to other food goods such as longer shelf life, the more vitamin C in crops like potatoes and firmer more antioxidant rich yields.³⁰

Organic Farming Operations – Farming Methods Traditional Farming and Their Impact on the Environment

As more scientific research is conducted on the effects that “traditional” farming methods have on the environment, the more we see that there is a direct correlation between the two. According to the EPA, agriculture accounted for 11.2 percent of U.S. greenhouse gas emissions.³¹ *Figure 4.1 below:*



29 Oral History Interview, Alexis Arizipe and Cristina Garza “*Oral History Interview of Shakera Raygoza*”, UTRGV (2022), pp. 1-18, 9

30 R.C Theuer, “*Tastes of Organic vs. Conventional Fruits and Vegetables.*”, Organic Ag (2006), <https://www.organicag.org/tastes-organic-vs-conventional-fruits-and-vegetables>.

31 EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2020*, <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2020>

Climate change and the use of intrusive agriculture are directly linked and with each passing harvest, we come closer to not only a depletion of healthy soils in which to grow crops, but a total climate collapse. In recent years, the rise of organic and sustainable farming practices has been used as ways to directly combat the inherent negative effects of agriculture. A recent article from the Columbia Climate School states, “research has shown that organic farms use 45 percent less energy, release 40 percent less carbon emissions, and foster 30 percent more biodiversity compared to conventional farming.”³² These methods do more than just slow the amount of carbon being displaced into the atmosphere, but rather can capture the carbon and return it to the soils. This replenishes the ground with the nutrients that are necessary for the growing of crops. This process, known as soil-based carbon sequestration, could be utilized to sequester over a billion additional tons of carbon per year.³³

Organic Farming Methods

The importance of organic and sustainable agricultural methods cannot be understated. Healthy foods, healthy communities, and a healthy planet are all benefits of using organic and sustainable agriculture.

One of the trends of conventional agriculture is monoculture, or the use of singular species of crop. Farms typically only use a singular kind of seed to ensure a maximum harvest while limiting the amount of work necessary to grow said crop. Although it is efficient, it has some major drawbacks. A disease or pest outbreak can jeopardize an entire field, since all the crops will react the same way to invaders, and monocropping, in which a farmer grows the same crop harvest after harvest, can have this same effect amplified. Because the risk of losing an entire monocultural harvest to a singular threat is so high, it is considered an issue for world-wide food security.

Crop diversity is an important agricultural practice in organic farming and directly addresses the issues found in monoculture-based agriculture. By utilizing different crops within the same field, we see an immediate impact on the environment and our produce. According to the USDA, crop diversity can “interrupt insect life cycles, suppress soil borne plant diseases, prevent soil erosion, build organic matter, fix nitrogen, and increase farm biodiversity.”³⁴ Ensuring a bountiful harvest is only one benefit of crop diversity, however.

32 So, Is Organic Food Actually More Sustainable?" *State of the Planet*. 5 February. Accessed December 7, 2022. <https://news.climate.columbia.edu/2020/02/05/organic-sustainable-food>

33 K. Paustain, E. Larson, J. Kent, E. Marx and A. Swan. "Soil C Sequestration as a biological negative emission strategy." *Frontiers in Climate* 16, 2019, <https://www.frontiersin.org/articles/10.3389/fclim.2019.00008/full>

34 "Fact Sheet: Introduction to Organic Practices | Agricultural Marketing Service." *Agricultural Marketing Service*. 11 September. Accessed December 7, 2022. <https://www.ams.usda.gov/publications/content/fact-sheet-introduction-organic-practices>.

Crop Trust, an international, non-profit organization dedicated to ensuring the use of crop diversity, states that crop diversity is one of the best tools to combat world food security. “Out of 20,000 edible plants, and 6,000 that have historically been used as food, fewer than 200 now make a major contribution to food production, and just nine account for two thirds of food production.”³⁵ Increasing the variety of crops we harvest, ensures food security by increasing the chances a crop has of surviving to maturity. As climate change becomes a growing issue, the biodiversity we use today will affect what we could be eating tomorrow.

Rotating and diversifying crops is not the only method of organic farming. Ensuring the health of the soil is crucial in maintaining fertile lands in which to grow produce. Intensive agricultural practices, like tilling, remove much of the nutrients from the ground by tearing into the soil and exposing the organic and surface horizons to the open air and sunlight. This dries out the soil and kills the helpful microorganisms that live in the ground and release nitrogen and carbon into the atmosphere, contributing to greenhouse gas emission. Traditional farmers will then supplement this loss of nutrients and minerals with artificial fertilizers which, when left unchecked, can contaminate the water table and cause runoff into local rivers and streams, causing much bigger environmental issues.

It’s for these reasons that maintaining soil fertility is a cornerstone of organic and sustainable agriculture. By maintaining healthy soils, the farmers can ensure that “crops more easily resist disease, survive drought, and tolerate insects.”³⁶ Maintaining soils can be accomplished by using techniques such as no-till farming. In no-till farming shallow cuts are made along the surface of the field in which farmers can then deposit their seeds of choice. By not being as intrusive into the earth, the soil does not get aggravated and becomes subjected to soil erosion. Also, the loss of nutrients and minerals associated with soil erosion is mitigated and reduces the number of fertilizers that must be used to replenish the soil. To be considered organic, however, natural fertilizers like compost, animal manures, and green manures are used instead of chemical ones that can contaminate water sources.³⁷

Lastly, organism control is the last method in organic agriculture to be mentioned. Invaders like insects and pests can easily decimate an entire crop if left unchecked, while competing plant life in the form of weeds can strangle crops by stealing nutrients from the ground for themselves. To deal with these intruders, conventional farms will use poisons like pesticides and herbicides. Protecting crops is so important, that in fact, “over 1 billion pounds of pesticides are used in the United States each year and approximately 5.6 billion pounds are used worldwide.”³⁸ The number of poisons being sprayed on our crops has a

35 "Why We Need Crop Diversity." *Crop Trust*. Accessed December 7, 2022.
<https://www.croptrust.org/mission/why-we-need-crop-diversity/>.

36 USDA

37 USDA

38 Donaldson D, Kiely T, Grube A. *Pesticide's industry sales and usage 1998-1999 market estimates*. US Environmental Protection Agency; Washington (DC): Report No. EPA-733-R-02-OOL.

detrimental effect on us and the environment. Remnants of these poisons stay on the produce even after harvest and end up in the food we eat. Meanwhile, excess spray soaks into the ground, and like chemical fertilizers, makes its way into the water table, bodies of water, rivers, or into irrigation canals. The issues of organism control for organic agriculture are no different, however the solutions aim to remove the use of harmful poisons that affect us and the environment.

For managing other organisms, we can use the “PAMS” strategy, or Prevention, Avoidance, Monitoring, and Suppression.³⁹ Many natural methods could be incorporated into the farmland for each step of this strategy. Preventing pests with natural deterrents like garlic juice or using physical barriers such as landscape fabric or insect barriers, is the first step in managing organisms. Avoiding spots that may be susceptible to outside influence is also a practice that organic farmers take, such as avoiding planting in areas prone to insect or weed infections help in the long run of pest management. Observing is also very crucial to ensure that issues are dealt with swiftly before they can take hold. Lastly, suppressing insects and weeds with mechanical or physical means, either pulling weeds manually or using predatory insects that will consume the invading species. All these methods aim to protect the produce without using chemicals that hurt us and the environment.

Organic Farming Method used by the Raygoza Family

According to their website, *Terra Preta* Farm has three points of focus when it comes to organic farming. Those three points are as follows: Soil Fertility, Pest Control, and Weed Control. As mentioned in the last section, all these points can be met by using organic farming methods, and to grow produce that is safe and healthy, these methods are put into practice.

“*Terra Preta* Farm sees the soil as the key to successful organic farming.”⁴⁰ Juan believes that the soil is the most important part of farming. Juan describes how he plans to achieve this rich soil here in the Rio Grande Valley.

You saw that charcoal there because the name of our farm is *Terra Preta*. And that I got it from some reading I was doing. I read about that in Brazil when the Amazonian they discovered some soils that were very fertile. They were very good soil for production. And so, they were wondering why that part, that section, was so fertile and so good. And they concluded that the natives improved these soils using char, and they call it *Terra Preta Do Indio*.⁴¹

³⁹ USDA

⁴⁰ Terra Preta Farm, *Farming Practices* https://terrapretafarm.com/?page_id=94

⁴¹ Raygoza, Juan, Oral History Interview by Leonardo Rodriguez, In – Person Interview, Edinburg, October 29, 2022.

Therefore, the use of charcoal as a supplement to the ground, as well as adding a mixture of compost and mulch to replenish over 70 minerals and nutrients, is organic soil management in action.

Lastly, organism management is done without the use of chemical pest control. Insects are dealt with using beneficial insects, insect barriers, and natural repellents such as garlic juice, while weeds are dealt with manually whether with the use of mechanical tilling or hand weeding. All these methods further the idea that the soil is the beginning of all good harvest and should be treated with respect and care.

Organic Farming Operations – Machinery

Farming Equipment is an essential component in any grower's day – to – day operations. Juan Raygoza uses mechanical machinery to grow his crops in both locations of Terra Preta farms. When we visited the location on Rogers Rd., the first element that we noticed was a perimeter of hay bales that surrounded every section of the farm. Hay bales are packages made from plants that had been cut and dried typically grass and are used for animal feed.⁴² In one of the interviews Juan informed us that hay bales are used to protect the plants from the wind that blows from the south. Southwind is very strong and sometimes can damage the leaves of the plants.

Terra Preta Farms owns two small tractors that are in constant use at both locations that we visited.⁴³ (see Figure 4.2) These tractors have tools that can be attached depending on the task that needs to be completed. *Terra Preta* Farm owns seven different tractor attachments for his farm.⁴⁴ For example, one of these tools is a harrow disk. This tool tills the soil before the seeds are planted and can be set for either deep or shallow plowing.⁴⁵ A Tandem disk is another tool that can be attached to a tractor and is simply a harrow disk with two or more rows of disks gangs that makes a much finer homogenous cut in comparison to a single harrow disk ⁴⁶(see Figure 4.3). Juan also has ditch blades to create

⁴² *Crops: Hay*, Living Farms, accessed on November 14, 2022, <https://www.lhf.org/learning-fields/crops/hay/#:~:text=Hay%20is%20a%20plant%20that,there%20to%20feed%20their%20livestock>.

⁴³ Raygoza, Shakera, Oral History Interview by Alexis Arizpe, Cristina Garza, Phone Interview, Edinburg, October 28, 2022.

⁴⁴ Raygoza, Juan, Oral History Interview by Leonardo Rodriguez, In – Person Interview, Edinburg, October 29, 2022.

⁴⁵ *Disk Harrows: Powerful Farm Equipment for Soil Preparation*, AGRIVI, accessed on November 14, 2022, <https://www.agrivi.com/blog/disc-harrows-powerful-farm-equipment-for-soil-preparation/>.

⁴⁶ *Types of Disk Harrows*, Gonzalez Equipment Sales INC, accessed on November 14, 2022, <https://gonzalesequipment.com/types-of-disc-harrow/#:~:text=Also%20called%20tandem%20disc%20harrow,a%20much%20finer%2C%20homogenous%20cut.>

ditches and bed shapers, a bed shaper tool that helps farmers create raised beds above the natural terrain to improve drainage and to protect crops from pests.⁴⁷ (See Figure 4.4)



Figure 4.2 Picture of the two tractors, Tandem Disk attachment behind blue tractor and plow attachment in front of tractors. Picture taken at Terra Preta Farm Rogers Road Location in Edinburg TX. Courtesy of Professor Roseann Bacha – Garza.



Figure 4.3 Tractor with Bed Shaper attachment, Edinburg TX.
Photo courtesy of Shakera Raygoza

⁴⁷ *Raised Beds for Vegetable Production*, Dr. Ajay Nair, Iowa State University, accessed on November 14, 2022, <https://www.extension.iastate.edu/smallfarms/raised-beds-vegetable-production>.



Figure 4.4 Picture of High Tunnels Picture taken at Terra Preta Farm Rogers Road Location in Edinburg TX. Picture courtesy of Professor Roseann Bacha – Garza

Another tool that is used by Juan, but he does not like to use too much is, a chisel plow. This device is used for deep tillage and its main purpose is to loosen and aerate the soil while leaving crop residue at the surface.⁴⁸ The reason Juan does not like to use the chisel too much is because tilling is bad for the soil. Unfortunately, it is necessary, but they do their best to not plow too deep.⁴⁹ This method is necessary, because plants need a smooth and clean bed free of debris for them to grow. Also, since the farm uses drip irrigation, the soil gets very compacted, which makes tilling necessary for growing more crops. Juan shared with us that there are farmers who stay away from tilling, but they plant crops that don't need this process, such as sorghum, corn, and cotton.⁵⁰

A sprayer is another attachment for the tractor and is used to apply liquid substances to the plants such as water or fertilizer.⁵¹ The last tractor attachment that Juan has on his farm is a four – row vegetable planter. As the name describes, this tool is used to plant seeds. Every row of the four – row vegetable planter has a hopper filled with seeds that travel to the bottom of the machine into a seeded plate. As the plate rotates, the seeds get planted one by one.⁵²

⁴⁸ *A Guide to Chisels*, Jason Richmond, Richmond Brothers Equipment LLC, accessed on November 14, 2022, <https://www.richmondbrothersequipment.com/blog/farm-tools-and-equipment/a-guide-to-chisel>

⁴⁹ Raygoza, Juan, Oral History Interview by Leonardo Rodriguez, In – Person Interview, Edinburg, October 29, 2022.

⁵⁰ Raygoza, Juan, Oral History Interview by Leonardo Rodriguez, In – Person Interview, Edinburg, October 29, 2022.

⁵¹ *Agricultural Sprayer and its Uses*, Jonathan Baker, RDS Mobile Machinery Electronics, accessed on November 14, 2022, <https://www.rdsme.com/blog/agricultural-sprayer/#:~:text=What%20is%20an%20agricultural%20sprayer,during%20the%20crop%20growth%20cycle.>

⁵² *How Does a Planter Work*, Andrea Boughton, Michigan Live, accessed on November 14, 2022, https://www.mlive.com/freshfood/2012/05/how_does_a_planter_work.html



Figure 4.5 Stand up that provides water from the canal to the Rogers Road Location of Terra Farm in Edinburg TX. Picture courtesy of Professor Roseann Bacha Garza

One technology that is used in both locations of *Terra Preta* Farm are high tunnels.⁵³ (see Figure 4.4) These devices are mostly found in the northern states of the country. A high tunnel is a plastic covered structure that is used to grow crops.⁵⁴

Plants are usually planted in the ground within the high tunnel, most structures are 14 – 30 feet wide, 50 – 150 feet long, and are tall enough so that a person can stand up inside.⁵⁵ Juan uses the high tunnels to protect the crops from the elements.

High Tunnels can protect the plants from cold-fronts, strong winds, and in the summer, they can protect the crops from the heat because the shade they provide lowers the temperature. *Terra Preta* Farm has two high tunnels on their Rogers Road property and three more high tunnels on their Canton Road location.

Farming equipment that includes mechanical machines as well as man-made structures make it possible for the *Terra Preta* Farm to harvest the exact quantity of product at the highest quality. Juan will keep improving his methods and updating his tools to make his family business the most productive organic farm in the region.

⁵³ Raygoza, Juan, Oral History Interview by Leonardo Rodriguez, In – Person Interview, Edinburg, October 29, 2022.

⁵⁴ *High Tunnels for your Small Farm*, Lauren Arcuri, Trehugger.com, accessed on November 14, 2022, <https://www.trehugger.com/farming-with-high-tunnel-hoop-house-3016873>

⁵⁵ *High Tunnels*, Allen Sage, Utah State University: Utah Vegetable Production and Pest Management Guide, accessed on November 14th, 2022, <https://extension.usu.edu/vegetableguide/production/high-tunnels>

Organic Farming Operations – Irrigation

Sustainable farming and commercial farming have many differences, but they also have some similarities. For example, both industries are similar in that they both depend on a reliable water supply and advanced irrigation systems to grow their crops. In this section we will learn about the Rio Grande Valley's water supply and the irrigation methods at the Terra Preta Farms.

The Rio Grande Valley is divided into twenty-seven different irrigation districts and all of them get their water from the Rio Grande. The origins of these districts take us all the way back to the first decade of the twentieth century. Before this era, early attempts to irrigate the fertile lands of the Rio Grande Delta were not commercially successful until an efficient way to pump water over the high banks of the river was discovered and an influx of capital from investors for the development of irrigation systems was secured.⁵⁶

Once these challenges were resolved, the RGV witnessed the birth of private irrigation companies after the irrigation boom of 1904. However, we saw a transition from private irrigation companies to publicly owned districts after the post-World War I depression. After the droughts and freezes of the early 1950's, an increasing demand of growing business and urbanization of the Valley led to the transformation of our current irrigation districts.⁵⁷

Terra Preta Farm's locations on Canton Road and Rogers Road both are in Hidalgo County Irrigation District No.1 in Edinburg, Texas with offices in 1904 N. Expressway 281 in Edinburg, Texas.

The process for purchasing water is simple. When Juan needs water for his crops, he purchases a water ticket at the Hidalgo County Irrigation District. Once this step is completed, he then makes an appointment with the Canal Rider to schedule the water delivery.⁵⁸

The canal rider is the person in charge of the opening and closing of canal gates as well as its maintenance. At the time of the delivery, the canal rider opens the pipes and valves (see Figure 4.5) and will keep them open for 2 hours per acre.⁵⁹ The canal pipe that distributes the water from the canal to the property has a diameter of approximately 24

⁵⁶ *A Field Guide to Irrigation in the Rio Grande Valley*, Lila Knight, The Portal to Texas History, accessed on November 15, 2022, <https://texashistory.unt.edu/ark:/67531/metapht1222694/m1/7/>

⁵⁷ Ibid.

⁵⁸ Raygoza, Juan, Oral History Interview by Leonardo Rodriguez, In – Person Interview, Edinburg, October 29, 2022.

⁵⁹ Mata Estella, Oral History Interview by Diego Rivera, Phone call to Hidalgo County Irrigation District No. 1, November 17, 2022

inches and is connected to a breather valve that releases pressure.⁶⁰ (see Figure 4.6)
Otherwise, the pressure can break the pipe. With the use of a water pump, Terra Preta Farm
can have an adequate amount of water needed for its crops.



Figure 4.6 Breather valve or pressure valve, Terra Preta Farm Rogers Road Location in Edinburg TX. Picture Courtesy of Professor Roseann Bacha – Garza



Figure 4.7 Irrigation Pond at Terra Preta Farm Canton Road Location in Edinburg TX, Courtesy of Diego Rivera

⁶⁰ Raygoza, Juan, Oral History Interview by Leonardo Rodriguez, In – Person Interview, Edinburg, October 29, 2022.

However, this process of obtaining water is not the best for Juan since his irrigation methods are different from other farmers. His methods involve planting a different crop every week and this creates a challenge for the irrigation district because they don't have enough personnel to help him open the canal pipes every week. Therefore, the irrigation district proposed an idea to Juan. They suggested building an irrigation pond large enough to hold the water that he needs. (See Figure 4.7) Now that the construction of the pond is completed, it's filled every two months with immediate access to the vital liquid the crops need every week.

Since the water that gets delivered to the pond comes directly from the Rio Grande and the canal intake pipes are wide, sometimes a few fish end up in the irrigation reservoir this creates an interesting opportunity for a different irrigation technique called aquaponics.⁶¹ With aquaponics, the fish in the pond produce nutrient-rich effluent that can be used to fertilize the plants.⁶² Coincidentally, by using this water for his crops Juan was using a version of aquaponics without planning it.

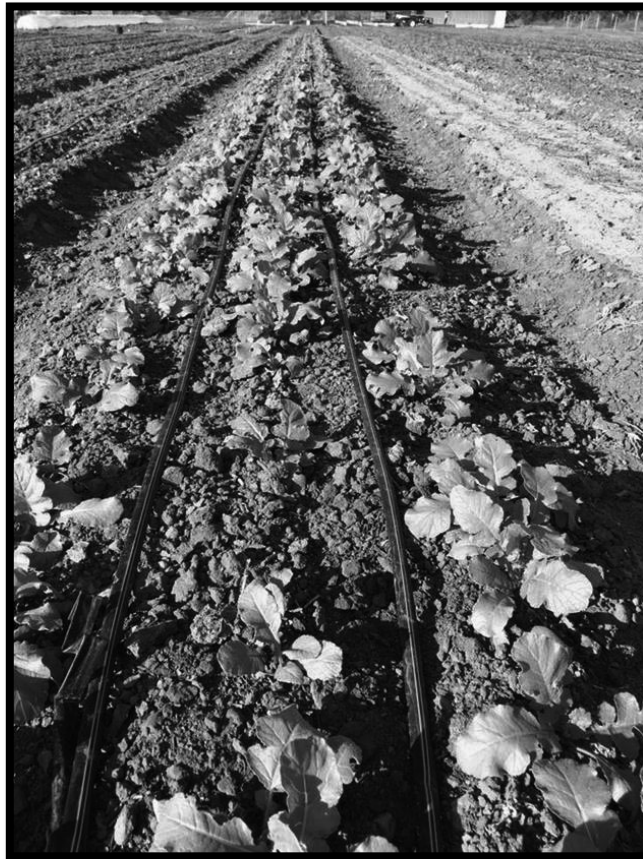


Figure 4.8 Drip Irrigation System at Terra Preta Farm in Rogers Road Location in Edinburg Texas, courtesy of Shakera Raygoza

⁶¹ Ibid.

⁶² *An Overview of Aquaponic Systems: Aquaculture Components*, Allen Patino, Iowa State University, accessed on November 17, 2022, https://www.ncrac.org/files/publication/aquaculture_components.pdf

Another method that is used at *Terra Preta* Farm that separates Mr. Raygoza from other farmers is that he uses drip irrigation to water his plants. Drip irrigation is great for water conservation because a farmer can place the drip system along the roots of the plants so that only the area around the plant gets wet.⁶³ (See Figure 4.8) In contrast, flood irrigation requires that you water the entire field all at once.

Drip irrigation also has more benefits. For example, less weeds grow in the fields since the only area that gets wet is around the crops. Also, a farmer can add fertilizer to the water since it will go directly into the plants. Since *Terra Preta* Farm is USDA Organic Certified, the only fertilizers used are fish emulsions and nitrogen extracted from soy.⁶⁴ Another benefit to drip irrigation is that it makes it easier for workers to walk around the property because they are walking on dry ground and not mud.

As many benefits that drip irrigation has, it also has a few disadvantages. For example, drip irrigation is very labor intensive because at the end of the season, farmers need to remove all the drip irrigation equipment from the field and then put it back together again for the next season. Another disadvantage is that it creates a lot of waste of drip tape that can only be used once. However, there are companies that are dedicated to recycling this drip tape. Juan collects all the drip tape that can no longer be used and packages it into bales. He then sells these bales to a broker to sell these bales to recycling companies.

Having a reliable and constant water supply is one of the most important aspects of farming, if not the most important one. The RGV has a direct supply of water from the Rio Grande River that is managed by publicly owned irrigation districts, but it is still in our hands to find methods and techniques to conserve more water so we that can keep growing the food that we need.

Organic Farming Operations – Packing Sheds

There is quite a logistical journey our produce must take before it reaches us on our supermarket shelves. To be processed and packaged, the produce must be picked and sent to a packing shed. Here, the produce can be prepared in a few ways. Frozen, canned, jarred, are just a few typical ways we can purchase our produce, and all these end products can be accomplished in a packing shed.

So, what is a packing shed? To put it simply, a packing shed is a facility that specializes in the processing and packaging produce. Packing sheds have different facilities depending on their location and specialization, but the most important processes are sorting, washing, and packaging. (See Figure 4.9)

⁶³ Raygoza, Juan, Oral History Interview by Leonardo Rodriguez, In – Person Interview, Edinburg, October 29, 2022.

⁶⁴ Raygoza, Juan, Oral History Interview 2022.

The produce starts its journey by being dumped into sorting bins where machines or factory workers will remove any produce that is considered inferior to the market. These rejects will be reused in other products like juice. Once the good product has been identified, it will continue the conveyor belt to the next stage of its journey.

The produce will come to a washing area where it will be cleaned of dirt and soil that may still be on the produce when it arrives. This is usually accomplished by passing through washing machines that spray water all over the produce, followed by some sort of air-drying system that will dry the produce without damaging it. Additional systems at this point may add chemicals to achieve a variety of goals including coloring or preservatives.

Lastly, the produce reaches the end of its journey at packaging. Here, depending on the packing shed, the produce can be frozen, canned, jarred, or loaded up as is and sold as fresh produce.⁶⁵

This is an oversimplification of what a packing shed is, but it gives us an idea of how much work goes into harvesting produce in the field and preparing it to be sold on the market.



Figure 4.9 Picture of certified organic citrus. Photograph taken at Triple “J: Certified Organic Farm in Mission TX, courtesy of Professor Roseann Bacha – Garza.

⁶⁵. Tour of Triple “J” Organics Certified Organic Farm, Mission TX

Packing Sheds and Terra Preta

As you can see, packing sheds are essential if a farmer wishes to make their produce marketable, and Terra Preta Farm is no different. When asked whether a packing shed is used by Juan, he replied:

We use a micro packing shed at the farm that we designed, and it definitely affects our profit margins. When we run our packing shed, we like to think in [about] systems. We analyze the flow of the product, space and the workers, if there is part in the process that is affecting the flow by 1 second. At the end of the day, it's going to turn into several extra hours that we need to pay. Having a good design with everything you need to pack your products its essential.⁶⁶



Figure 4.10 Red harvester ants on an armored catfish.
Both common pests in the LRGV.



Figure 4.11 A carpenter bee known sometimes as a pest and sometimes as an important pollinator.

⁶⁶ Raygoza, Juan, Oral History Interview by Chris Cuellar, Email Interview, Edinburg,

Organic Farming Challenges – Pests Management

Pests play a major role in agricultural operations. Pests vary from rabbits and weeds to ants and birds. These pests cost US farmers \$21 billion in losses every year.⁶⁷ Typical commercial or traditional farmers use pesticides to rid of potential invasions, however, in organic farming, other methods must be used. Terra Preta Farm is no exception to dealing with pests, but how they handle it and prevent future invasions when compared to traditional farmers is one way that separates traditional farming from organic farming. (See figure 4.10/4.11).

Oxford dictionary defines a pest as, “a destructive insect or other animal that attacks crops, food, livestock, etc.,” however, the USDA describes a pest as simply, “any organism detrimental to humans... The agricultural viewpoint, pests are organisms that diminish the value of resources in which man is interested.”⁶⁸ Pests interfere with agricultural, and non-agricultural, production of crops and livestock. Pests can be insects, weeds, plant pathogens, or other vertebrates which are noxious and damaging. (See Figure 4.12)



Figure 4.12 Terra Preta Farm stand at McAllen Farmers Market in McAllen TX.
Photo courtesy of Shakera Raygoza

⁶⁷ Kerry Sheridan, *Invasive species cost the US \$21 billion per year, study finds* (WUSF Public Media – WUSF 89.7, January 4, 2022).

⁶⁸ Economic Research Service, *Pests and Pest Management* (USDA).

The Lower Rio Grande Valley (LRGV) is one of the most agriculturally intensive regions of the American south. Conditions in the LRGV allow for a wide diversity of crops such as vegetables, trees, and row crops. Some of the most common diseases caused by pests in the LRGV include: zebra chip disease, citrus greening, black rot, black rot blight, pink root disease, cotton root rot, lethal bronzing disease, cucurbit yellowing, okra yellow mosaic begomoviruses complex, papaya ringspot, tomato yellow leaf curl, and grapevine nepoviruses complex.⁶⁹ These diseases are typically caused by pests such as nematodes, insects, and fungi. Potatoes, citrus, cabbage, dill, onions, palms, melons, and many more of the crops grown in the LRGV can become victim to pests and disease caused by pests. Traditional farmers typically use pesticides as pest management, and in 2018, about 235 million pounds of herbicides and insecticides were used in U.S. animal feed crops.⁷⁰ Organic farmers must find other solutions to manage pests.

Organic farmers have plenty of options in terms of non-pesticidal pest management. Organic farmers can encourage tolerance of pests by investing in crop varieties that are resistant to pests.⁷¹ A detailed farming plan can help prevent competition between crops and weeds.

Crop rotation is an effective way for managing pests and increasing fertility of soil. Often times, pests are attracted to specific crops.⁷² Rotating, or alternating, crops can disrupt a pests' life cycle thus making it more difficult to establish on crops.

Intercropping and maintaining crop diversity another two more methods of pest management.⁷³ Intercropping is a cultivation practice which involves planting two or more crops in the same field. This practice goes hand in hand with diversifying crop species.

Biological control is another method used in pest control.⁷⁴ Encouraging a pests' natural enemy to eliminate pests is another method that avoids the use of pesticides. Farmers can use other insects or predators to kill pests such as the use of ladybugs to control aphid populations.

There are also organic pesticides that can be applied to crops. These organic pesticides come from natural sources and are processed very minimally. Minerals, plants,

⁶⁹ Juan R. Anciso et al, *Plant Disease Review of South Texas Crops and their Management* (Texas A&M AgriLife Extension Service, 2021).

⁷⁰ Lori Ann Burd et al, *New Report: More Than 200 Million Pounds of Pesticides in U.S. Are Applied to Crops Grown to Feed Animals on Factory Farms* (Center for Biological Diversity, February 22, 2022).

⁷¹ Rajinder Mann, *VOLUNTARY BEST MANAGEMENT PRACTICES TO CONTROL PESTS WITHOUT PESTICIDES* (Minnesota Department of Agriculture).

⁷² Ibid.

⁷³ Jovita Aranha, *5 Innovative Ways for Farmers to Fight Pests Without Using Any Chemicals* (The Better India, November 8, 2017).

⁷⁴ Ibid.

and microbes are the typical ingredients for such pesticides.⁷⁵ Neem tree, Serenade (*Bacillus subtilis*) microbe, *Beauveria bassiana* fungus, and vinegar-based pesticides are some of the popular ingredients used in organic pesticides.⁷⁶

Farmers are not the only people who can help with pest management. The USDA often calls on the help of the public to help fight against pests.⁷⁷ For example, many residents of the LRGV have citrus plants in their own yards, and the Mexican fruit fly does not target only citrus crops owned by farmers, but any citrus tree, regardless of the tree being located in urban or rural areas. One way the community can help mitigate Mexican fruit fly populations is by removing citrus fruit from plants, either by eating the fruit or by trashing (not composting) it. By doing this, you prevent the Mexican fruit fly from increasing its population.

Terra Preta Farm has had to deal with pests. Most commonly, the farm has faced challenges with rabbits and the leafcutter ant species known as the red harvester ant (*Pogonomyrmex barbatus*).⁷⁸ Luckily, *Terra Preta* Farm has found that the red harvester ants avoid certain crops which is now what that farm is planning to grow more of.

The farm uses a number of natural, or organic, solutions for pest management. Neem tree oil is used on the farm as a repellant for fungi and beetles.⁷⁹ Basic dish washing soap is also used on the farm to combat bugs. As for worms, biological control is used. Copper mineral is applied to the soil with improves soil health.⁸⁰ Another method used to control pests is a type of roll cover cloth. Shakera Raygoza describes it as a kind of blanket for the plants that prevents bugs from getting to the crop.⁸¹

Organic Farming Challenges – Natural Disasters

The Lower Rio Grande Valley (LRGV) is prone to natural disasters and severe weather events. The main causes of these natural disasters include hurricanes, floods, and freeze events. The LRGV does not have to worry about earthquakes, landslides, tsunamis, or volcanoes, but instead, floods, drought, hurricanes, freeze events, and tornadoes are more likely to occur in this area. The National Risk Index by FEMA rates the LRGV as relatively high on the risk index.⁸² Cold waves, drought, heat waves, and lightning rate at a relatively high risk according to FEMA. Hail, hurricanes, ice storms, riverine flooding, tornados and

⁷⁵ Ibid.

⁷⁶ OSU Extension Service, *Profiles of organic pesticides* (Oregon State University Extension Service, July 2017).

⁷⁷ Cecilia Sequeira, *Texas Residents: We Need Your Help To Protect Citrus from Invasive Pests* (Global S&T development Trend Analysis Platform of Resources and Environment, May 3, 2021).

⁷⁸ Raygoza, Shakera, interview by Alexis Arizpe and Cristina Garza. 2022. (October 28).

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² FEMA, *National Risk Index Hidalgo County, Texas* (FEMA, December 8, 2022).

winter weather are rated at very high risk. Strong wind events and wildfires are rated at relatively moderate. These rates are based off of the expected annual losses, social vulnerability, and community resilience calculated by FEMA experts.⁸³

One of the earliest accounts of a natural disaster dates back to October 7th, 1867.⁸⁴ A strong hurricane came ashore at the mouth of the Rio Grande. It was so strong that it destroyed the towns of Clarksville in Texas, and the Mexican town of Bagdad, Tamaulipas. In 1874, another strong storm hits the mouth of the Rio Grande. This time causing a storm surge of over 20 feet. This caused flooding, from the mouth of the river and northward, and ended the existence of the towns mentioned previously.⁸⁵

In September 1886 and September 1933, storm surges caused massive flooding. In 1886, the city of Brownsville experienced flooding of up to 26 inches. In 1933, a 13-foot storm surge flooded the coast of Cameron County. Dunes on South Padre Island (SPI) were leveled and developed areas on SPI were abandoned for some time.⁸⁶

The most significant storm in LRGV history is credited to Hurricane Beulah which occurred in September 1967. Beulah caused multiple winds, flooding, and storm surges for approximately two days and covered the region from Cameron to Zapata County. Wind gusts were recorded up to 100 mph as far inland as Pharr and Edinburg. On South Padre Island (SPI), Port Isabel, and Boca Chica, storm tides were estimated up to 14 feet high. Flooding occurred up to rooftops in Harlingen.⁸⁷

For many years after, hurricanes continued to hit the LRGV region causing massive flooding. In 1980, 1988, 1999, 2008, 2010, and 2020, major hurricane events occurred in the LRGV.⁸⁸ These severe hurricanes brought flooding, hail, and damaging gusts, causing significant damage to cities and communities across the region.

More recently, the July 2020 hurricane named Hurricane Hanna brought floods and damaging winds to the LRGV. The majority of the cotton crops in the LRGV, which are typically planted in February and, had been completely destroyed by flooding. Citrus trees were severely damaged as well. Some citrus limbs were broken, and some citrus trees were completely uprooted. Sugarcane and other vegetables crops were heavily damaged with some crops having complete losses. Crop damages were estimated at \$177 million in the LRGV, and \$366 million in losses when calculating for economic and production losses.⁸⁹

⁸³ Ibid.

⁸⁴ Rod Graham, *The Lost Cities of the Rio Grande Valley* (The Valley Spotlight, January 2015).

⁸⁵ Ibid.

⁸⁶ NOAA, *Hurricane Preparedness, Rio Grande Valley: Hurricane History* (National Weather Service, May 8, 2017).

⁸⁷ Ibid.

⁸⁸ Ibid.

⁸⁹ NOAA, *July 25-27, 2020: Hurricane Hanna Brings Flooding Rain, Damaging Winds to the Rio Grande Valley* (National Weather Service, May 6, 2021).

Because natural disasters are unpredictable and unavoidable, the U.S. government provides disaster relief, protection, assistance, and recovery programs. For example, producers who suffered losses from Hurricane Hanna in Cameron, Hidalgo, and Willacy counties were eligible for emergency loans.⁹⁰ The Extending Government Funding and Delivering Emergency Assistance Act helps agricultural producers by offsetting the impacts of natural disasters and provides emergency relief funds in 2020 and 2021.⁹¹

The government provides many programs to protect and help producers recover from natural disasters regardless if the farm is traditional or organic. Agriculture Risk Coverage and Price Loss Coverage, Dairy Margin Coverage, and Noninsured Crop Disaster Assistance Program are programs to help protect producer operations, provide price support, and help them manage risk.⁹² Crop insurance is also available for farmers. Winter storms, hurricanes, drought, and wildfires all have their own programs provided by the USDA which help producers protect and recover from natural disaster losses. The Tree Assistance Program helps those producers who have suffered losses from natural disasters and plant diseases.⁹³ It is geared specifically for those producers who own orchards and tree nurseries. Animals and livestock have several programs as well, such as Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish, Emergency Livestock Relief Program, Livestock Forage Disaster Program, and the Livestock Indemnity Program.⁹⁴ Conservation, price support, and other programs are available to help farmers recover from natural disasters.

In an email correspondence with Juan Raygoza, he states how the freeze of 2021 had been one of the most impactful natural events to disrupt his farm.⁹⁵ The fall and winter season is there busiest season and the freeze of 2021 damaged everything above ground.⁹⁶ Crops and trees were badly damaged and the insurance he had on crops and trees was a very small payout.⁹⁷ Despite the wide scale damage, Juan was replanting crops in less than a week.⁹⁸ Strong winds, drastic weather changes, and droughts are the most common natural environmental factors *Terra Preta* Farm has faced.⁹⁹

Organic Farming Finances – Crops Economics

Sale prices of crops can vary based on several different factors. The main driving force for any market is supply and demand. The more demand there is for a certain product,

⁹⁰ USDA, *USDA Designates Six Texas Counties as Primary Natural Disaster Areas* (Farm Service Agency, October 28, 2020).

⁹¹ USDA, *Emergency Relief* (Farm Service Agency).

⁹² USDA, *Protection and Recovery* (Farmers.gov, September 1, 2022).

⁹³ Ibid.

⁹⁴ Ibid.

⁹⁵ Juan Raygoza, *Email correspondence* (December 6, 2022).

⁹⁶ Ibid.

⁹⁷ Ibid.

⁹⁸ Ibid.

⁹⁹ Ibid.

or crop, the higher the rates will be. However, there are other factors which will be discussed that contribute to the sale price of crops.

Colin Cain, the executive director of Business and Rural Develop at the University of Texas Rio Grande Valley (UTRGV) and the co-director of the Center of Sustainable Agriculture and Rural Advancement (SARA), describes instances where discrimination against smaller farmers can affect the selling of crops thus making it harder for those smaller farmers to have access to lucrative markets such as HEB or school districts.¹⁰⁰

When it comes to traditional farming and organic farming, one factor that is noticeable is the fact that organic farming is a niche market that comes with premium prices. As Juan Raygoza stated himself, “Price is more expensive for organic food but it’s also more labor intensive since we don’t use the strong chemical products that have [leave a] residue for a month or two.”¹⁰¹ The price of labor and the price for maintaining an organic farm contributes to crop prices.

Energy costs and a farmer’s acreage decisions also play a major role in crop prices. Fuel prices can affect a farmer’s ability to harvest, as well as the pricing for neem tree oil, seeds, and the cloth roll covers which are specifically used on *Terra Preta* Farm.¹⁰² Planning ahead with a thorough farming plan can help mitigate and prepare for future costs which could affect a crops pricing.

The Farm Service Agency (FSA) is a government agency which offers loans and grants to help farmers and ranchers get the financing needed to start, expand, or continue farming operations.¹⁰³ The FSA offers a wide variety of farming loan programs.

Subsidies are financial benefits paid to a farmer by the government. Subsidies protect farmers from weather events, commodities brokers, and disruptions in the supply-demand chain.¹⁰⁴ Unfortunately, these subsidies more commonly benefit large agricultural producers which leaves, often times, smaller organic farmers disadvantaged. As observed by Juan Raygoza, the U.S. currently focuses on subsidizing monocrops which include crops like corn, soy, cotton, wheat, rice, and sorghum.¹⁰⁵ Monocropping is the practice of growing a single crop year round on the same land.¹⁰⁶ This practice of farming encourages the use of pesticides, herbicides, fungicides, etc. This practice of farming has advantages to subsidies over organic farming practices.

¹⁰⁰ Colin Cain, interviewed by Stephanie De La Rosa (November 9, 2022).

¹⁰¹ Juan Raygoza, interviewed by Leonardo Rodriguez (October 29, 2022).

¹⁰² Shakera Raygoza, interviewed by Cristina and Alexis Arizpe (October 28, 2022).

¹⁰³ USDA, *Farm Loan Programs Home* (Farm Service Agency)

¹⁰⁴ Kimberly Amadeo, *How Farm Subsidies Affect the U.S. Economy* (The Balance, April 18, 2022).

¹⁰⁵ Juan Raygoza, interviewed by Leonardo Rodriguez (October 29, 2022).

¹⁰⁶ Katie Garrity, *Here’s Everything You Need to Know About Monocropping (And How It’s Hurting the Environment)* (Green Matters, May 19, 2020).

Agribusinesses have to pay state and local taxes; however, agriculturalists have the benefit of certain tax exemptions. In Texas, agricultural land is appraised at a lower rate than for other types of property thus reducing the property tax a landowner pays.¹⁰⁷ Agriculture is also exempt from state and local sales on products such as feed, seed, equipment, and chemicals.¹⁰⁸ Sales of motor vehicles that specialize in agricultural production are exempt from taxes for farmers.¹⁰⁹ Fuel used for farming operations are also tax exempt.¹¹⁰ And finally, some state franchise taxes are exempt for farmers.¹¹¹

Farmers, ranchers, and communities need to know about these tax exemptions. People need to understand how revisions to tax exemptions can potentially affect agricultural production. Residents of Texas can use this information to understand how the general tax burden should be divided between various groups.¹¹² Agriculture benefits from several tax exemptions. Producers also benefit from various provisions at the state and local level. These provisions and tax exemptions provide farmers and ranchers with significant tax savings.

Some programs by the USDA, however, are not tax exempt and farmers must make taxable payments. Conservation programs, such as the Conservation Reserve Program (CRP) and the Environmental Quality Incentives Program (EQIP), that are issued by the FSA or Natural Resource Conservation Service (NRCS) are subject to taxes.¹¹³ Crop disaster payments, assistance for distressed borrowers, Market Facilitation Program, farmers classified as individual, and farm ownership or operation loan secured by real estate are all subject to taxable payments.¹¹⁴

On *Terra Preta* Farm, what crops are planted are decided mainly on what is in demand. Going into the wholesale market, the farm has shifted from growing for the Community Supported Agriculture (CSA) model to the wholesale model. In the future, the Terra Preta Farm would like to grow more kale, beets, and/or carrots.¹¹⁵ As of recent, they have been growing a lot of radishes.

¹⁰⁷ Rebekka M. Dudensing and Lonnie L. Jones, *Agriculture Taxes in Texas*, (AgriLife Extension Texas A&M System).

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

¹¹¹ Ibid.

¹¹² Ibid.

¹¹³ USDA, *Taxes and USDA Programs*, (Farmers.gov).

¹¹⁴ Ibid.

¹¹⁵ Shakera Raygoza, interviewed by Cristina and Alexis Arizpe (October 28, 2022).

Organic Farming Finances – Trading in Organic Farming

Organic Farming, like any other industry, requires profits from its products to stay in business. In this section we are going to explore the different ways Terra Preta Farms sells its organic products, from their origins to the present time.

The Raygoza family started their organic farm journey with a small garden where they planted vegetables. During their first harvests, they had a situation where they had more food than what they could eat. That is when Mr. Juan Raygoza had the idea of selling their extra food at farmer's markets.¹¹⁶

A farmer's market is a public and recurring assembly of farmers or their representatives selling the food that they produced directly to consumers.¹¹⁷ The family began to sell their vegetables at small farmer's markets and as they grew, they attended as many as three markets per week, one of those shops was the McAllen Farmer's Market.¹¹⁸ (Insert Figure 4.11) The McAllen Farmers Market is set up every Saturday from 10:00 am – 1:00 pm at the McAllen Public Library located at 4001 N. 23rd St. 78504 in McAllen TX.¹¹⁹

More recently, *Terra Preta* Farm has moved away from farmers markets since they are transitioning more to wholesale practices and selling more direct to consumers.¹²⁰ For example, at the time of this publication, the farm has a couple of options where customers can buy their tasty products.

The first option is a vegetable stand located at 2806 East Rogers Rd. in Edinburg TX. The stand is open Mondays, Tuesdays, Wednesdays, Fridays, and Saturdays from 10:00 am – 1:00 pm.¹²¹

If it is not possible for customers to visit the vegetable stand in – person, the farm's website also has an online store where they sell boxes filled with fruits and vegetables which they call them FARM2GO Veggie Boxes. The contents of the veggie box change from season to season and customers can order boxes online and pick them up at their earliest convenience or *Terra Preta* Farm can deliver their veggies within a certain radius from the vegetable stand.¹²² See Figure 4.13) If customers want to get the latest information on what

¹¹⁶ Raygoza, Shakera, Oral History Interview by Cristina Garza, and Alexis Arizpe, In – Person interview, Edinburg, October 28, 2022.

¹¹⁷ *About Farmer's Markets*, Ben Feldman, Farmer's Market Coalition, accessed on November 30, 2022, <https://farmersmarketcoalition.org/education/qanda/>.

¹¹⁸ Raygoza, Shakera, Oral History Interview by Cristina Garza, and Alexis Arizpe, In – Person interview, Edinburg, October 28, 2022.

¹¹⁹ *McAllen Farmer's Market*, accessed on November 30, 2022, <https://mcallenfarmersmarket.com/>

¹²⁰ Raygoza, Shakera, Oral History Interview by Cristina Garza, and Alexis Arizpe, In – Person interview, Edinburg, October 28, 2022.

¹²¹ *Terra Preta Farms*, Juan Raygoza, accessed on November 30, 2022, <https://terrapretafarm.com/>

¹²² *Terra Preta Farm*, Juan Raygoza, accessed on November 30, 2022, <https://terrapretafarm.com/>

veggies are going into the boxes in every season *Terra Preta* Farm also has a social media page which gets updated regularly.¹²³



Figure 4.13 Photograph of Shakera Raygoza delivering Veggie Boxes to Prasad Food Restaurant in McAllen TX, courtesy of Shakera Raygoza.

There is no doubt that the Raygoza family is experiencing success with their organic farm, and this is because of their dedication to and love of their craft. The Raygoza family will continue to expand to offer more crops and different types of vegetables as well as educating the community on the benefits of sustainable agriculture.

Organic Farming Finances – Labor Beyond the Family

Terra Preta Farm is a family owned and operated business. Starting with the owners Juan Raygoza, his wife Shakera Raygoza and their three children Little Shake, Kanani, and Andres. All five family members cooperate with each other when it is time to run the farm.

¹²³ Terra Preta Farm, Juan Raygoza, accessed on November 30, 2022, <https://www.facebook.com/TerraPretaFarm/>,

However, sustainable agriculture is a business that needs help from outside of the family. In this section of the chapter, we are going to go over the different individuals and groups of people that work on *Terra Preta* Farm.

Mr. Joe Martinez is a supervisor at the Texas A & M Eco – Lab Research in the Rio Grande Valley. He has worked with this institution for more than twenty years. He oversees planting seeds, growing crops and regular farm practices and researchers from the Eco – Lab gathers data of this process. Mr. Martinez is also an experienced tractor mechanic, and it was through this occupation that he met Mr. Juan Raygoza.¹²⁴

Mr. Martinez has helped the Raygoza family from the very beginning and started by lending Mr. Raygoza a piece of land so he could start his family business. Moreover, as an experienced tractor mechanic he helped fix Mr. Raygoza's tractor every time it needed repair or maintenance. Mr. Martinez shared with our team that every time he helped Juan fix his tractor that Juan always paid attention when he was working on the tractor to a point where Juan could fix it by himself. To this day Mr. Martinez always comes to the aid of Juan whenever he asks, because with time they became good friends.¹²⁵ However, a lot more people are needed to make sure all the activities in the farm run smoothly but according to Juan, labor support is something that they struggle with every year.¹²⁶

When the farm has a consistent stream of revenue Juan will hire a full – time employee that can assist all year round. During harvest season he hires a second employee to help the farm. For the activity of reaping vegetables, Juan hires the services of a harvesting contractor who will bring seasonal employees to the farm. Depending on the harvest, anywhere between three to twenty personnel will work at the farm collecting vegetables. However, finding workers is a situation that farmers are experiencing.¹²⁷

Juan's hypothesis about this situation is that farm workers recognize that as important and noble is to work in the field. It is very hard work, and the farmers advise their children and sometimes their grandchildren to pursue careers outside of agriculture. Juan incentivizes seasonal workers to work him by offering a higher pay rate in comparison to the pay rates from commercial farms as well as an environment free of toxic chemicals where they can work in disease – free conditions.¹²⁸ However, even with these incentives it is still a challenge to hire workers. Juan shared his thoughts on solutions to solve the challenges of finding labor. He shares, “if the government would put all those efforts in that area and subsidize organic farming, then we could pay more, making agriculture more appealing to youth.”¹²⁹

¹²⁴ Martinez, Joe, interview by Santiago Uresti and Bruno Rosales. 2022. (November 4).

¹²⁵ Ibid.

¹²⁶ Juan Raygoza, interviewed by Leonardo Rodriguez (October 29, 2022).

¹²⁷ Ibid.

¹²⁸ Ibid.

¹²⁹ Ibid.

Even though it has become more of a challenge in the last few years to find employees, using incentives such as a higher pay rate and a safe environment to work are a step in the right direction. Let us hope that Juan's ideas can be spread to everyone who reads this book so farmers all over the country can get the assistance they need from people in power.

Organic and sustainable farming has many benefits. For instance, by staying away from synthetic fertilizers and pesticides, farmers help regenerate the soil damaged by commercial farming methods. This increases the soil's carbon absorption rate that lowers the carbon footprint that we have created on the planet. When you add efficient irrigation methods such as drip irrigation, these farmers are helping to conserve water which is our most valuable resource. Unfortunately, there is a downside to sustainable farming which is that organic produce has a higher price compared to commercial crops. However, when one takes into consideration the hard labor that farmers like the Raygoza family put into planting, growing, caring and harvesting these vegetables and as the benefits these practices have on the environment and in our bodies, it is safe to say that these higher prices are an investment in our health and our planet.

Chapter 5: The Process

Hernesto Hernandez, Jackie Moran, Santiago Uresti, Jorge L. Rodriguez

Introduction

As the world heals from the COVID- 19 virus, UTRGV's *Discovering The Rio Grande Valley* class continues in new ways. Technology brought students together, using Zoom meetings, sharing digital documents on Blackboard and via email and, of course, meeting in person. The class consists of undergraduate juniors and seniors and graduate students pursuing a master's degree. Students visited Raygoza's two organic farm properties and conducted archaeological, geological, and biological surveys to identify artifacts, soil types, flora, and fauna on the properties. Students received extensive training from the professors in order to learn what to look for while in the field as well as how to conduct oral history interviews.

First, we learned how to identify specific geological materials such as El Sauz chert as well as archaeological findings in the RGV, in particular, projectile points artifacts found in the region. We learned the importance of documenting all artifacts found during our fieldwork experience and the importance of separating the artifacts and labeling them according to the date found and what field or location it was found in.

Ms. Roseann Bacha-Gaza teaches in the Anthropology Department and is the instructor of CHAPS (Community Historical Archaeology Project with Schools) Program Manager. She is the lead instructor and guided us through the process of putting together our guidelines and organization of our documentation. She also gave a lecture about the history of the Rio Grande Valley starting with the Spanish Colonial settlements and *porciones* (land grants) and into the modern era we live in today. She showed us how to search for land titles using the Hidalgo County Courthouse Property Search website. She also provided a training lecture about how to conduct an oral history interview and how to transcribe it by creating a first draft with double spacing, then to finalizing the transcription with the approval of the person that was interviewed. She demonstrated the paperwork and how to collect all the necessary paperwork and permission forms and file them.

Dr. Juan Gonzalez is a Geology professor from the School of Earth, Environmental, and Marine Sciences (SEEMS). He showed us the transition of earth's continents, beginning with an amazing simulation. His focus was on the RGV and its geological aspects. He introduced the concept of deflation troughs, ephemeral waterholes which help explain the presence of prehistoric human occupation far from rivers or streams. While drilling to retrieve soil samples we learned how to record this evidence into our documentation of the property.

Ms. Becky Reyes, who specializes in scenic wetlands and nature preserves, focused on Biology in the Rio Grande Valley. She lectured the class on the types of native plants and animals that reside in our area along with invasive plants that were brought from outside. She also provided a class lecture on Ecotourism in the region and how the border wall has affected it. With her help, the class identified native and invasive species of plants and animals on both Raygoza properties.

Groups

After the intense training and fieldwork, the class was divided into groups. Ms. Bacha-Garza created a draft outline of how our chapters were to be broken down. We wrote down our top three choices of what chapters we would like to participate in along with the reasoning behind why we chose the groups. After deciphering what students expressed their areas of interest according to their choices and their field of study, the groups were created. A graduate student was assigned to lead each group and that contained undergraduate students.

The list of the group divisions was posted and the process of starting the chapters began. How does one start writing a chapter with several people participating? Outlines were created to organize how each chapter would be done. After Ms. Bacha-Garza and Dr. Russell Skowronek reviewed and gave recommendations for our outlines, we went straight to work. All research data, interviews and fieldnotes that have been collected in our shared One Drive folder, which helped us develop our first draft for the chapters. Starting with “Introduction” a quick summary of what our studies will cover and of the Raygoza family was determined. Moving on to “History of Farming and Agriculture of the Rio Grande Valley” chapter, we decided to discuss Juan Raygoza’s passion for agriculture. Next up, the “Origins Inspiration / Journey” chapter examines the Raygoza's family background and what inspired Juan to pursue a career in agriculture. “The Process” group (best group ever!) was in charge of documenting the process of our class, how the class functioned, cleaning artifacts that were collected in the field and photographing them for the book in the making. The “Family Life” chapter concentrates on the roles the family members have, from the farm, farmers markets, inputting orders, recipes and advisors that have helped them along the way. Studying “an organic, urban” farm is a new direction for the CHAPS program. This chapter focuses on the many aspects of organic farming from the USDA regulations required to be considered an organic farm, to what machinery, crops, farming methods, and how they deal with pests. Last but not least, “Future of Farming,” details the directions organic farming will lead to. The “Conclusion” chapter covers the transition of farming, post-NAFTA and the positive effects of organic farming in the RGV. The preparation for this multidisciplinary course did not consist of quizzes, tests, or exams, only rigorous reading/writing assignments to familiarize students with all related topics.

Cleaning Artifacts

Before our group “The Process” started writing, we needed to clean all the artifacts. After collecting our hard evidence and documenting it, “The Process” group and graduate student Starr Hein spent a day at the CHAPS building cleaning and bags of the artifacts from our field work. We divided it according to the day found and the field it was found on, identifying them (Figure 5.1, 5.2, 5.3, 5.4) and then taking photos of each item. It was an extensive and laborious process and at the same time rewarding to see all of our classmates finding out in the fields.



Figure 5.1 (left) cleaning artifacts in the CHAPS office in the Lamar building on 11/4/2022.
Figure 5.2 (right) Hernesto Hernandez, Santiago Uresti and Grad student Starr Hein, identifying artifacts.



Figure 5.3 Starr Hein, Santiago Uresti, and Hernesto Hernandez preparing items for photography on 11/4/2022.

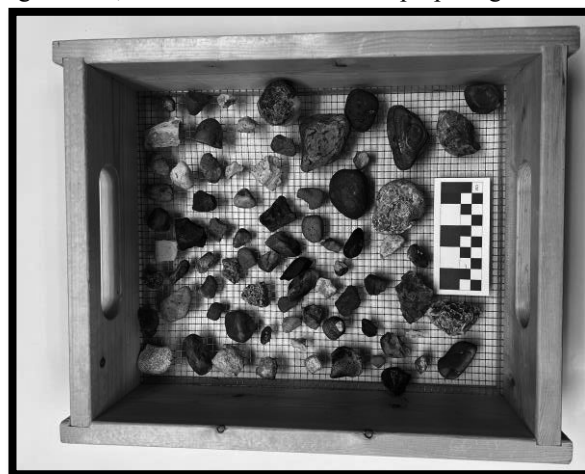


Figure 5.4, a sample of how The Process Group and Starr Hein aligned the artifacts for photos on 11/4/2022.

Oral History

The Raygoza farm properties are rather new farms. It was imperative to obtain as much documentation on the Raygoza family. Each student was assigned a certain member that was part of the Raygoza farm or their growth. The process of obtaining oral history interviews is a detail-oriented process. Developing the interview questions and sending them to Ms. Bacha-Garza, to be reviewed while adding questions to maximize the interview as much as possible. We sent the interview questions beforehand to the interviewee, giving them time to think of the answer and prepare for details. We also set up a time and a quiet place to hold the interview. Filling out the paperwork and permission forms for the interview, and after the interview, we prepared the transcriptions. Two of our class sessions were devoted to the training of Oral history interviews. Ms. Bacha-Garza created a step-by-step guide and posted it on our Blackboard, demonstrating the process of setting up the oral history interview. With a startup script that guided the interviewer in a strong and clear way on how to start the interview process, each interviewer was able to assist the interviewee to answer the questions with a smooth transition. There were multiple ways to record the interview. Students were allowed to check out a digital audio recorder from the CHAPS Program. Students also have the ability to use their own cell phone device and use the recording app. Or, if the interviewee was in a completely different location, setting up a Zoom meeting and pressing the recording button, the recording is automatically saved on the students' cloud or electronic device. By using technology devices, this automatically sets the students up for the next part, transcriptions.

Transcriptions

Technology is amazing. If it wasn't for technology, this part of the process would have been the most difficult. It is rather time consuming because you play the interview and type what the interviewee said on a document, then if you miss something, you can rewind and repeat the process over and over until you get it right. All students who conduct an oral history interview have to go through this process. Once it's typed out double-spaced in a twelve-point font, the student emails or prints it and sends it to the interviewee to review. The interviewee then marks the paper/document, correcting either errors or editing something. Once the interviewee completes this part, they send it back to the student for a second revision. Student implements the revisions and once again emails or prints the transcription and sends it to the interviewee for a last and final overlook. The Interviewee reviews the document and edit marks and signs and dates at the bottom right-hand corner of the document. Back in the students' hands for the final revision, students input the last edits. Changing the spacing to 1.15 and finally submitting the transcription along with all the previously collected items back and forth revisions and paperwork. It is a long process but so rewarding at the end. It ensures all of those interviewees' points of view are expressed and they are comfortable with what is said in the final product.

Our Findings, Geography, Geology, Anthropology, and Biology

Farm 1

Figure 5.5, is a picture of Farm 1, located in Canton Rd, between Tower Rd. and Valverde Rd. in Edinburg. This was the first property students and professors visited for the Raygoza family, on October 10th, 2022. Farm 1 is about 15 to 20 mins from the University of Texas Rio Grande Valley. This location also houses a pond, and the property is about 7 acres full of organic and clean soil. This is one of the locations where the Raygoza family grow their chemical-free foods. Students and faculty were separated into three different groups, the different groups experienced biology, archeology, and geology on the properties. The students took pictures of insects, plants, grasses, and animals present at the location. The class also found insects, shells, charcoal, shotgun shells, soda cans, golf balls, pieces of glass, metal rackets, and a lot of plastic.



Figure 5.5 An aerial picture of Farm 1, located on Canton Rd, between Tower Rd. and Valverde Rd. in Edinburg. This was the first property students and professors visited for the Raygoza family, October 10, 2022.

Pond

Figure 5.6, Farm 1 also houses a pond located northwest of the site. The pond is used as part of the irrigation system for the organic farm. On the northern area of the pond the class found natural findings like shells, but we also encountered waste material, such as plastic, shotgun shells, insulation, soda cans and more. The southern zone of the pond, findings were not so different, we found bigger shells than the northern area. The class found large black plastic pieces and pieces of irrigation sprinklers that might be used in the same location, either from Juan Raygoza or the previous property owner.



Figure 5.6 Farm 1 also houses a pond, located on Northwest of the site; the pond is used as part of the irrigation system for the organic farm, angle of the picture is southwest of the pond.

Farm 2

Figure 5.7, Farm 2 is a 20-acre property located 2806 Rogers Rd, next to Memorial Middle School in Edinburg. Students and faculty went to this location two times, October 17 and 24 of 2022. Farm two is where the *Terra Petra* Farm is located, and where mostly all the prehistoric items were found. The *Terra Petra* Farm at Rogers Rd. was a bit dissimilar from the one on Canton Rd. The biology and archeological aspects of the properties were different. This location had different plants, and also Sauz Chert, natural items that weren't seen in Canton Rd. This farm was also between 15 to 20 minutes from the university. This is also the location where the Raygoza family reside. Their house is located in the south area of the location, specifically in the entrance of the property.



Figure 5.7 Terra Preta Farm 2 is located in Rogers Rd, between NM Rd and N Doolittle Rd, next to Memorial Middle School, also in Edinburg. Farm 2 is where the prehistoric items were found.

Comparison of El Sauz Chert

As a class we found different artifacts of Sauz Chert, it is a sedimentary rock that is largely composed of silica. El Sauz Chert is a very fine grain chert. Chert is easily distinguishable from others because of its texture and color.

Example of El Sauz Chert

Figure 5.8, The larger one on the left is EL Sauz chert, the rest are other cherts. As we can see by the pictures, the texture and color can differentiate El Sauz from the rest.

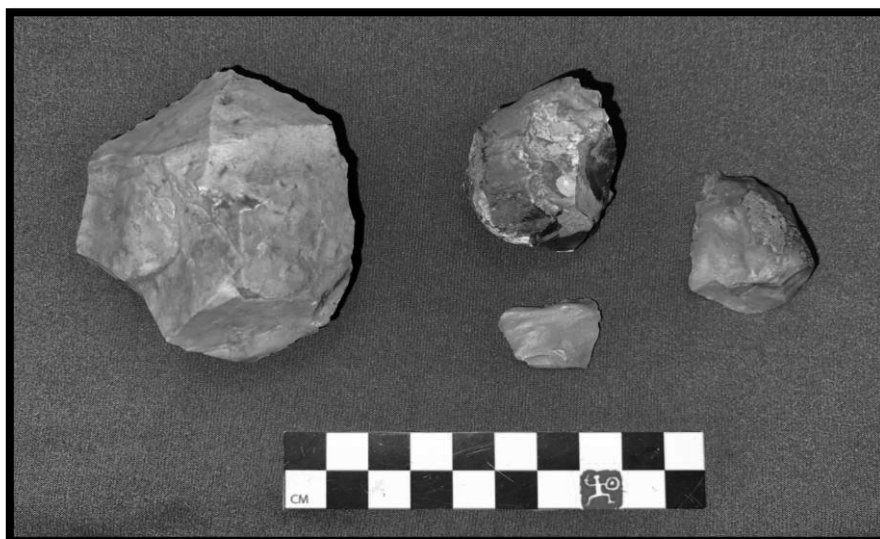


Figure 5.8 Human altered lithics found at Terra Preta Farm on Rogers Rd. Left El Sauz Chert, the rest are other cherts.

Deflation Through & Borehole 1

Figure 5.9 is an aerial photo of Raygoza 7-acre Canton Rd. Property view, with an exact point of where borehole number one was drilled on the southern area of the property and the location of the deflation through in the property. As described in the article written by Dr. Gonzalez, Russell K. Skowronek, and Bobbie L. Lovett titled “Deflation Troughs, Water, Prehistoric Occupation on the Margins of South Texas and Sheet” the Rio Grande Valley has many different types of soil units. In Hidalgo County, the most common one is called Rio Clay Loam, the soil unit is 60. This unique type of soil is described when the ground is poorly drained, the permeability being very low, and the capacity of water is high. The authors of this article educate about how many of these locations with the same soil type “contain pond water from runoff, and most of the year are saturated with water”¹. Borehole number 1 was done in this first location (Canton Rd.) on October 10, 2022, by UTRGV students. The remaining two boreholes were done in the second location (Rogers Rd.) on October 17 and 24 of 2022.



Figure 5.9 is an aerial photo of Raygoza’s 7-acre Canton Rd. Property view, with a location of where borehole number one was drilled, which was the southern area of the property.

¹ Gonzalez, L. Juan, Russell K. Skowronek, and Bobbie L. Lovett, “Deflation of Troughs, Water, and Prehistoric Occupation on the Margins of the South Texas and Sand Sheet,” 75.



Figure 5.10 is an aerial picture of the Raygoza property in Rogers Rd. The picture also illustrates where boreholes 2, 3, 4, and 5 were drilled. As we can see they were drilled more on the north side of the property. This is also the area where a prehistoric piece of chert was found, specifically in the southwest of central field.

Farm 2 and Borehole Illustrations

Figure 5.10 is an aerial picture of the Raygoza property in Rogers Road. The picture also illustrates where boreholes 2, 3, 4, and 5 were drilled. As we can see, the boreholes were drilled more on the north side of the property, though the consistency of all boreholes were different. This is also the area where a prehistoric piece of chert was found, specifically in the southwest of central field.

Figure 5.11 Boreholes chart and legend

The chart and legend were created by UTRGV students and Professor Gonzalez. With the help of Dr. Gonzalez, students drilled and took notes to mark down the qualities of the soils such as Silt Loam, Sand or Sandy Loam, Silty Clay Loam, and the Calcium Carbonate Concretions of each borehole.

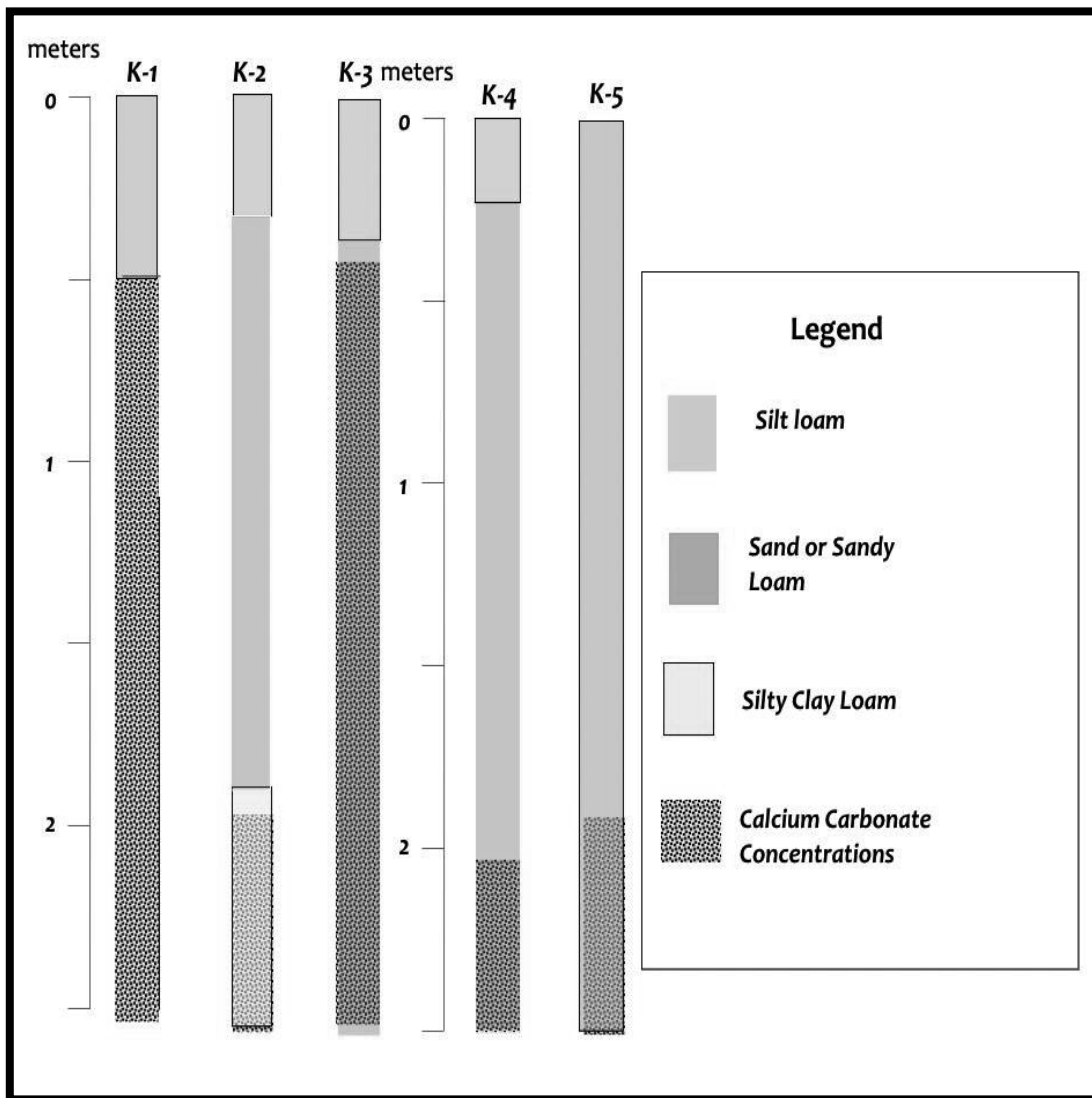


Figure 5.11 Boreholes chart and legend created by UTRGV students and Professor of Geology Dr. Gonzalez.

Boreholes Chart

As a class accompanied by Dr. Gonzalez, the task was to drill (using a T- shape tool called an auger) and take samples of the land composition at the Raygoza property. The illustrations and graph shown above, the class was able to find and examine different types of textures in the boreholes. As seen, for borehole number 1, shown in figure 5.11, the calcium carbonate concretion was higher than most of the other boreholes, the concretion covered four-fifths of the auger, the other 1-fifth had only silt loam covered on the auger. Borehole number 2, started and ended shortly with sandy loam, though we did find a lot of silt loam in the process of carving down, at the end of the borehole, silt clay loam and calcium carbonate concretion were seen as well. Borehole No. 3, started but also ended shortly with sandy loam, the rest of the auger was covered with silt loam and calcium carbonate concretion. Borehole No. 4 was all and only covered with sandy loam, with a little calcium carbonate concretion at the end.



Figure 5.12 (left) Dr. Gonzalez demonstration measurement marks on the auger at 7-acre Canton Rd. Raygoza Property, October 10, 2022.

Figure 5.13 (right) Jorge using the auger tool at 7-acre Canton Rd. Raygoza Property, October 10, 2022.



Figure 5.14 (left) Dr. Gonzalez, demonstrating the soil and its texture at 7-acre Canton Rd. Raygoza Property.

Figure 5.15 (right) UTRGV students along with Dr. Gonzalez at the Raygoza 7-acre Canton Rd. Property.

Biological Findings

The Raygoza Family has two properties, East Canton Road (7 acres) and Rogers Road (20 acres), which they use for farming. The two properties are labeled as Farm 1 (7 acres) and Farm 2 (20 acres) when discussing the biological findings (flora and fauna). Those two properties are used to practice sustainable agriculture where they grow organic produce. Farm 1 (7 acres) is located behind a few houses, and it is surrounded by trees. It also has a small pond within the property (Figure 5.5, 5.6). Farm 2 (20 acres) contains the Raygoza Family home, and it is located next to a school. A biological survey was conducted on both locations within the process of three days. Ms. Rebecca Reyes, a park interpreter that works for Estero Llano Grande State Park, guided students in identifying the flora and fauna on both locations of Terra Preta Farm.

Flora

Many of the plants located in this farm are native plants to the Rio Grande Valley, but throughout the years many nonnative plants have been introduced that now coexist with the native plants or kill the native plants as they both compete for nutrients.

Farm 1 (7 acres) 7769 East Canton Road

In this location, there was an array of native plants to the Rio Grande Valley (RGV) to be found around the property, such as Cowpen daisy (*Verbena encelioides*) (Figure 5.16), Palmer's Pigweed (*Amaranthus palmeri*) (Figure 5.17), Retama tree (*Parkinsonia aculeata*), and many others that aid the native fauna. There are also nonnative species in this property, such as the guinea grass (*Megathyrsus maximus*) which was introduced to the RGV from Africa to be used for cattle (Figure 5.18). Banana or plantain trees (*Musa sp.*) (Figure 5.19), asparagus (*Asparagus sp.*) were planted by Shakera Raygoza (Figure 5.20), as well as a fig tree (*Ficus sp.*). On the property there is also the Mesquite tree (*Prosopis glandulosa*) which is found all over the RGV and according to Becky Reyes, there is a debate about whether the mesquite tree is a native tree (Figure 5.21). However, Ms. Reyes did note that there was greater diversity of plant and animal life on these properties because they were organic farms (i.e., without chemicals).



Figure 5.16 Cowpen Daisy (*Verbena encelioides*).



Figure 5.17 Ms. Becky Reyes holding Palmer's Pigweed (*Amaranthus palmeri*).



Figure 5.18 Guinea Grass (*Megathyrsus maximus*) brought from Africa for the cattle.



Figure 5.19 Banana or Plantain Trees (*Musa sp.*) in front of a shed.

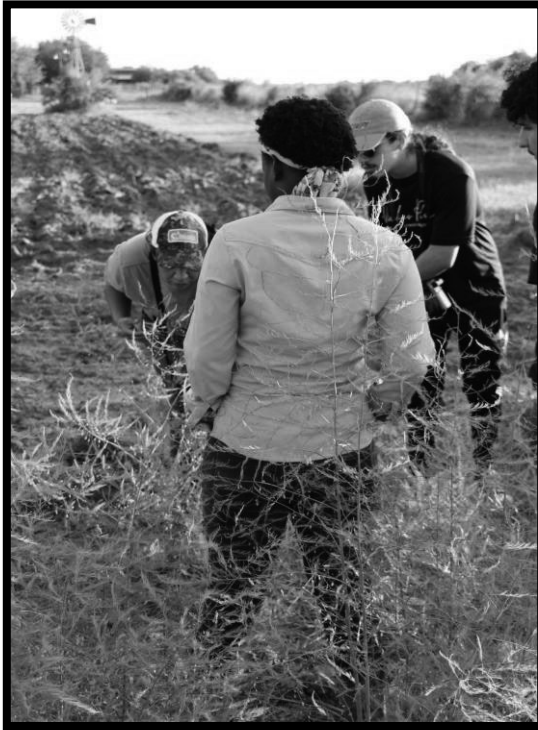


Figure 5.20 (left) *Asparagus* (*Asparagus sp.*) growing in the field with Shakera Raygoza in the back with Becky Reyes and Ryan Torres.

Figure 5.21 (right) Honey Mesquite Tree (*Prosopis glandulosa*).

Farm 2 (20 acres) 2806 East Rogers Road

On Farm 2 (20 acres) there are different kinds of native plants that were not found on Farm 1 (7 acres), such as the Wild Olive Tree (*Cordia boissieri*). The fruit can be made into jelly but eating too much fruit can be toxic (Figure 5.22). Scorpion's Tail (*Heliotropium angiospermum*) (Figure 5.23), Guamuchil (*Pithecellobia dulce*), Silverleaf Nightshade (*Solanum elaeagnifolium*) (Figure 5.24), and Espanta Vaqueros (*Tidestromia lanuginosa*) which glows when there is a full moon and will give a silver glow scaring cowboys (Figure 5.25). There are also nonnative plants on the property like the Oleander (*Nerium oleander*) which all the parts of this plant are poisonous (Figure 5.26), Moringa tree (*Moringa oleifera*), Guava tree (*Psidium sp.*) and Papaya tree (*Carica papaya*) both were planted for their fruit (Figure 5.27, 5.28).

Fauna

The Rio Grande Valley is home to an array of animals, birds, and insects. Both properties of Terra Petra Farm were surveyed, and we encountered different types of animals that range from footprints to a symbiotic relationship between ants and aphids (Figure 5.29, 5.30).



Figure 5.22 (left) Wild Olive Tree (*Cordia boissieri*) with fruit.
Figure 5.23 (right) Scorpion's Tail (*Heliotropium angiospermum*).



Figure 5.24 (left) Silverleaf Nightshade (*Solanum elaeagnifolium*).
Figure 5.25 (right) Espanta Vaqueros (*Tidestromia lanuginosa*) which glows when there is a full moon and will give a silver glow scaring cowboys.



Figure 5.26 Oleander (*Nerium oleander*) in which all the parts of this plant are poisonous.



Figure 5.27 (left) Guava Tree (*Psidium sp.*) planted by the Raygoza Family.
Figure 5.28 (right) Papaya tree (*Carica papaya*) planted by the Raygoza Family.



Figure 5.29 Egret footprints on muddy soil.



Figure 5.30 Symbiotic relationship between aphids and ants, while spotless lady beetles eat the aphids.

Fauna on Farm 1 (7 acres)

On this property, there several insects were found, such as the Brown Longtail (*Urbanus procne*) on a Common Sunflower (*Helianthus annuus*) (Figure 5.31), spotless lady beetle (*Cycloneda sanguinea*), and a six-spotted milkweed bug (*Oncopeltus sexmaculatus*) (Figure 5.32). There is also a small pond on this property with fish. Juan Raygoza says,

“That pond is used for irrigation... because I do drip irrigation and I’m different from all the farmers that just plant, like one time I plant every week, every week I plant a little bit. So, it would be very hard or it wouldn't work out with the district to be sending me water every week. So, they asked me to build a pond, fill it up and then do several irrigations with that water. With time, we started seeing fish because the water comes from the river. And there is a method for growing vegetables called aquaponics. Where they raise fish and they recycled that water to water the crops. So in a way, I was doing some type of aquaponics there without planning it cause there were fish and I was using that water.”²

(Figure 5.5, 5.6) There are also birds flying and singing around the property, like the Barn Swallows (*Hirundo rustica*), Great-Tailed Grackle (*Quiscalus mexicanus*) (Figure 5.33), Red-winged Blackbird (*Agelaius phoeniceus*), Green Jay (*Cyanocorax yncas*), and Plain Chachalaca (*Ortalis vetula*).



Figure 5.31 (left) Brown Longtail (*Urbanus procne*) on a Common Sunflower (*Helianthus annuus*).
Figure 5.32 (right) Six-Spotted Milkweed Bug (*Oncopeltus sexmaculatus*).

Fauna on Farm 2 (20 acres)

On this property there was a Moringa tree that was in bloom, and it had several Carpenter bees (*Xyocopa sp.*) (Figure 5.34), Green-striped Grasshopper (*Chortophaga sp.*) (Figure 5.35), Spotless Lady Beetle (*Cycloneda sanguinea*) eating aphids (Figure 5.30), and the Little Yellow Butterfly (*Eurema lisa*) (Figure 5.36). We saw several birds that weren't on Farm 1 like the Mourning Dove (*Zenaida macroura*) (Figure 5.37), Killdeer (*Charadrius vociferus*) (Figure 5.38), Cattle Egret (*Bubulcus ibis*) flying over (Figure 5.39), and the Great-Tailed Grackle (*Quiscalus mexicanus*) (Figure 5.33) which was found on both properties.

² Raygoza, Juan, Oral History Interviewed by Leonardo Rodriguez at East Rogers Road, Edinburg, Texas, October 29, 2022



Figure 5.33 (left) Great-Tailed Grackle (*Quiscalus mexicanus*).
Figure 5.34 (right) Carpenter bee (*Xyocopa sp.*) on a Moringa Tree flower (*Moringa oleifera*).



Figure 5.35 (left) Green-striped Grasshopper (*Chortophaga sp.*).
Figure 5.36 (right) Little Yellow Butterfly (*Eurema lisa*) upside down on a small branch.



Figure 5.37 (left) Mourning Dove (*Zenaida macroura*).
Figure 5.38 (right) Killdeer (*Charadrius vociferus*).

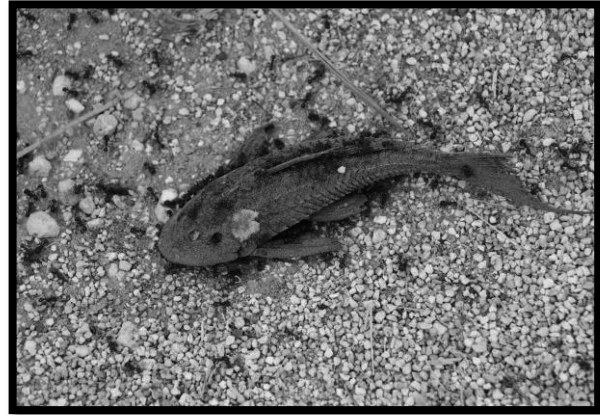


Figure 5.39 (left) Cattle Egret (*Bubulcus ibis*) flying over.

Figure 5.40 (right) Red Harvester Ants (*Pogonomyrmex barbatus*) feasting on Armored Catfish (Family *Loricariidae*).

Invasive Species

On Farm 2 (20 acres) Juan Raygoza found a dead Armored Catfish (Family Loricariidae) (Figure 5.40). How did it get there? Juan Raygoza utilized a system of flood irrigation to water and the land that he was going to use for planting. The way he obtains the water is, “I go and purchase water at District No. 1 after I get a water ticket number, I call the Canal Rider to schedule a time to receive the water. This property has water on the pipe very often, I think they use this line to move water to different places, which helps me a lot. And that's how it works.”³ (Figure 5.41) This water comes directly from the Rio Grande and the Armored Catfish is a nonnative species in the Rio Grande Valley. Becky Reyes, our biological survey guide, informed us that this species was introduced to our resacas, canals, and rivers by nonprofessional aquarists who wanted to discard this species for getting too big for their small aquariums. Thus, the armored catfish has become abundant in our waterways and is destroying our local water ecosystems.



Figure 5.41 an Irrigation “Breather”

³ Raygoza, Juan, Oral History Interviewed by Leonardo Rodriguez at East Rogers Road, Edinburg, Texas, October 29, 2022

Bones

There were a variety of bones found on the Raygoza property. Figure 5.42 is a phalange bone of a cow. An interesting aspect of the cow phalange is that it has butchering marks, most likely a cow butchered for food. The phalange bone was identified by cross-examining and comparing it with bones of similar shape and size, such as Figures 5.45 and 5.46. However, the smaller bone fragment, found on the left side of the cow phalange in Figure 5.42, was unidentifiable due to its small size.

Furthermore, Figures 5.43 and 5.44 are diaphysis fragments. In other words, this bone fragment is most likely part of the middle section of a larger bone, such as a rib or a femur. Figures 5.47 and 5.48 show how this diaphysis bone does, in fact, appear to fit into the middle section of larger bones. The cross-examination and identification of these bone fragments was provided to the students by Professor Frank J. Dirrigl Jr., during his Comparative Vertebrate Osteology and Taphonomy laboratory.



Figure 5.42: A bone diaphysis (left) and a cow phalange bone (right).



Figure: 5.43 (left) Unidentifiable piece of bone. This is the interior side of the bone.
Figure 5.44 (right) Unidentifiable piece of bone. This is the exterior side of the bone.



Figure 5.45 (left) Identifying the cow phalanges via comparison.
 Figure 5.46 (right) This image demonstrates the close similarity of shape between the bones.

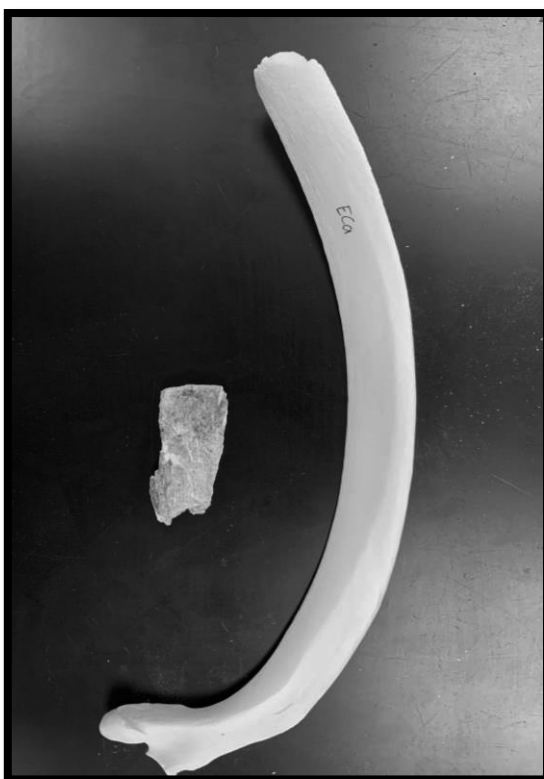


Figure 5.47 (left) The diaphysis fragment compared to a rib of a horse.
 Figure 5.48 (right) The diaphysis fragment compared to other larger bones.

Archaeological Findings

An array of artifacts found on the Terra Preta Farm illustrates an abundance of human activity. The shards of glass bottles, the broken pieces of ceramics, and deformed plastics all convey recent historical antecedents, alongside other human behaviors. Interestingly, however, it is speculated that the human behaviors in the Raygoza property range over an extensive period of time as the chips of chert, illustrate human usage of stone tools. This section of “The Process” chapter will demonstrate those prehistoric findings. Furthermore, up to more recent times, the remnants of burned trash, empty shotgun shells, and tillage are dedicated to modern human behavior which focuses on agricultural practices, such as farming and, possibly, ranching.

Prehistoric Findings

The ridges on the edges and the surface of this chert piece indicate that it was used as a stone tool. This piece of chert was found on October 24, 2022 on the Rogers Road property. The chert was found on the south side of the central field. More specifically, it was found on the southwest quadrant of the central field (Figures 5.49, 5.50). Additionally, a fellow CHAPS student, Kate Garcia-Purdum, found a piece of worked El Sauz chert on the Terra Preta Farm. Since stone tools were found on this property, the Raygoza property is considered an archaeological site. The reason why prehistoric activity took place in the Raygoza property deals with easy accessibility to a deflation through located at the center of the field.

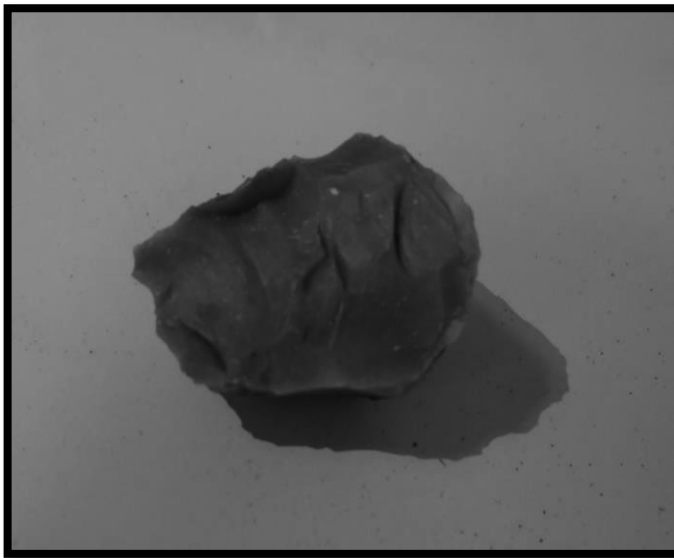


Figure 5.49 (left) Image of stone tool made of chert.

Figure 5.50 (right) Fellow CHAPS student, Kate Garcia-Purdum, holding a piece of worked El Sauz chert.



Figure 5.51: Image of UTRGV students and Dr. Skowronek performing an archaeological survey of the 2806 Rogers Rd Property.

Historic Artifacts, Material, Culture, and Incidental Trash

Material culture artifacts left behind by modern human occupation of the property were found by the students during the fieldwork surveys on October 10th, Oct. 24, and Oct. 31, 2022.

Figures 5.52 and 5.53 contain a large amount of broken ceramic fragments, most likely from decorative plates, mugs, and vases. Larger ceramic parts may have been parts of a toilet or a floor tile, serving a different function than those of decorative pieces. There could have been a variety of reasons why there were many ceramic shards, such as previous shed structures. This might be highly possible if the previous owner of the property demolished a shed. Figure 5.52 contains eleven pieces of ceramics and Figure 5.53 contains around six pieces.

Similarly, Figure 5.53 and Figure 5.54 contain a variety of glass pieces, which could have either been for decorative purposes or served a more utilitarian role, such as being part of a windowpane. However, most of the glass shards seem to be from glass bottles.

Figures 5.53, 5.53, and 5.55 all contain different plastics, which vary in color, weight, and texture. Figure 5.53 contains many lip gloss bottles, which were found on Oct. 24, 2022, in the central field of the Terra Preta Farm. Additionally, Figure 5.55 contains different pieces of plastic for an irrigation system, which were used by the Raygoza family. The majority of the irrigation pieces were found in the 7-Acre property on October 10th. 2022; they were found in the Southwest side of the field.

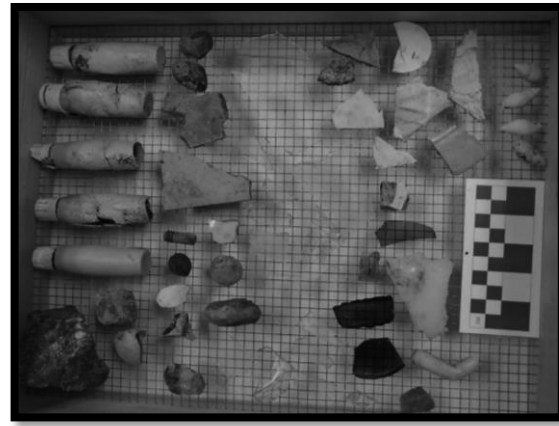
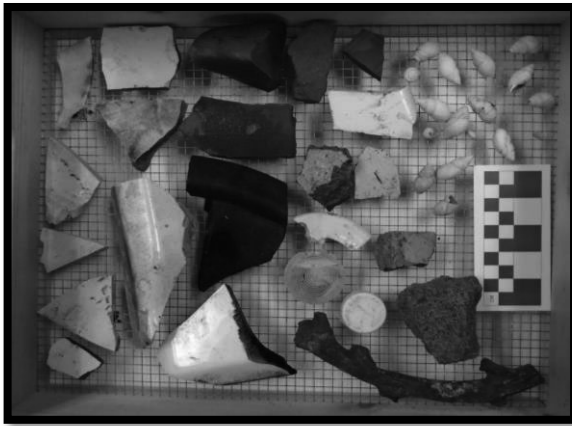


Figure 5.52 (left) An assortment of ceramic pieces, metal pieces, and different land snail shells.
Figure 5.53 (right) Pieces of plastic mascara bottles, ceramic, glass, and smaller glass bottles.



Figure 5.54 (left) Small fragments of glass, ceramic, and plastic pieces.
Figure 5.55 (right) This image contains different pieces of plastic with irrigation purposes.

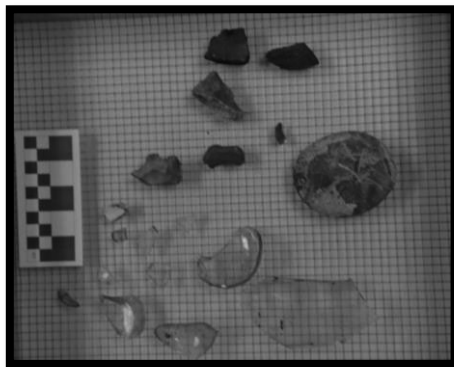


Figure 5.56 (left) Pieces of glass, pieces of chert, and uniquely shaped rocks.
Figure 5.57 (right) shows a neon orange, broken clay disk, shotgun shells, a golf ball & different metal pieces.

Human Behaviors

There could have been a variety of human behaviors throughout the history of human occupation at the Terra Preta Farm. However, archeological evidence suggests that current or previous owners used a variety of weapons, such as shotguns. There was a large number of shotgun shells found throughout the property. The remnants of a clay disk, in Figure 5.57, might indicate that shotguns were used leisurely. On the other hand, it can demonstrate that whoever was using the shotgun and clay disk could have been practicing.

In conjunction with these human behaviors, there were an array of plastic tags with different agricultural products, with the purpose to label the produce. For example, Figure 5.58 illustrates various plastic pieces used to label the products of that season's harvest.

Figure 5.59 illustrates the tag which is placed on the fruit that is later sold and produced. Thus, the functionality between the tags is different. The plastic label from Figure 5.59 is for mass production of produce, with the intent to be scanned and sold. While the plastic labels from Figure 5.58 are used to distinguish the different types of fruits, vegetables, and other produce which are being produced for the season's harvest. These plastic labels convey agricultural practices taking place on the Terra Preta Farm. Additionally, Figure 5.59 points out that organic agricultural methodologies are used.

The following pictures, Figures 5.60 and 5.61, were found at the Southeast part of the 7-acre property. A large amount of charcoal and burned rubble might be indicative of a burning mound, where people discarded trash. Figure 5.60 contains seven large pieces of charcoal. In addition to these pieces, there are ten smaller pieces of charcoal. Additionally, the high frequency of finding pieces of charcoal also correlates with the agricultural practices of the Raygoza family, which is to distribute charcoal to provide nutrients to the soil. This is an organic method of providing different minerals and nutrients, without the usage of harmful fertilizers.

Figure 5.61 contains a variety of metal pieces. These were probably pieces that were exposed to elements as many of these pieces of metal show signs of oxidation. These pieces were most likely trash and abandoned on the property.

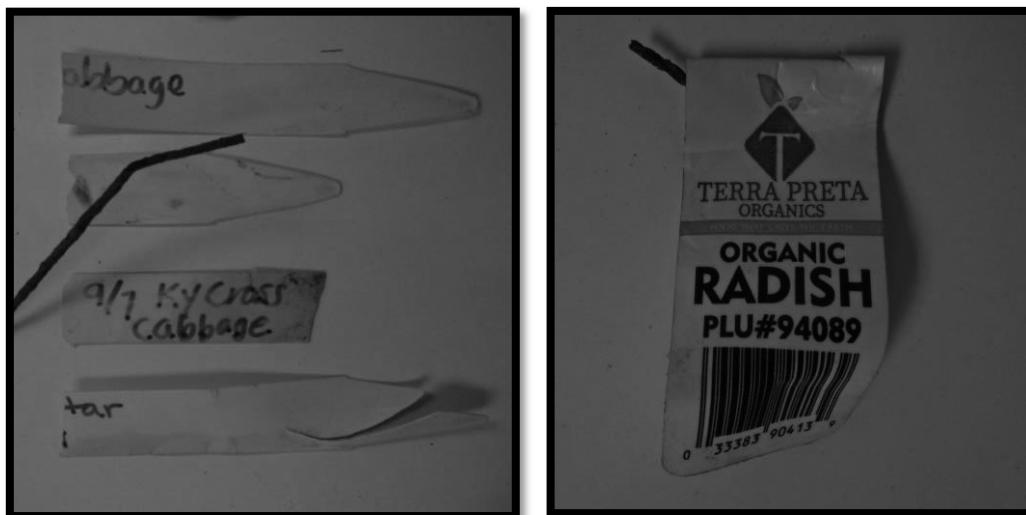


Figure 5.58 (left) These are plastic pieces identifying the crop being produced.

Figure 5.59 (right) An organic radish tag from the Terra Preta Farm.



Figure 5.60: An image demonstrating the range of charcoal piece sizes found, alongside wood pieces.



Figure 5.61: An image illustrating the different pieces of metal found on the Raygoza property, some of them covered in rust.

Maps of Archaeological Findings

These are images of the maps, which were made by students from the CHAPS class. The maps pinpoint the locations in which specific artifacts were found on the property (Figures 5.62, 5.63, and 5.64).

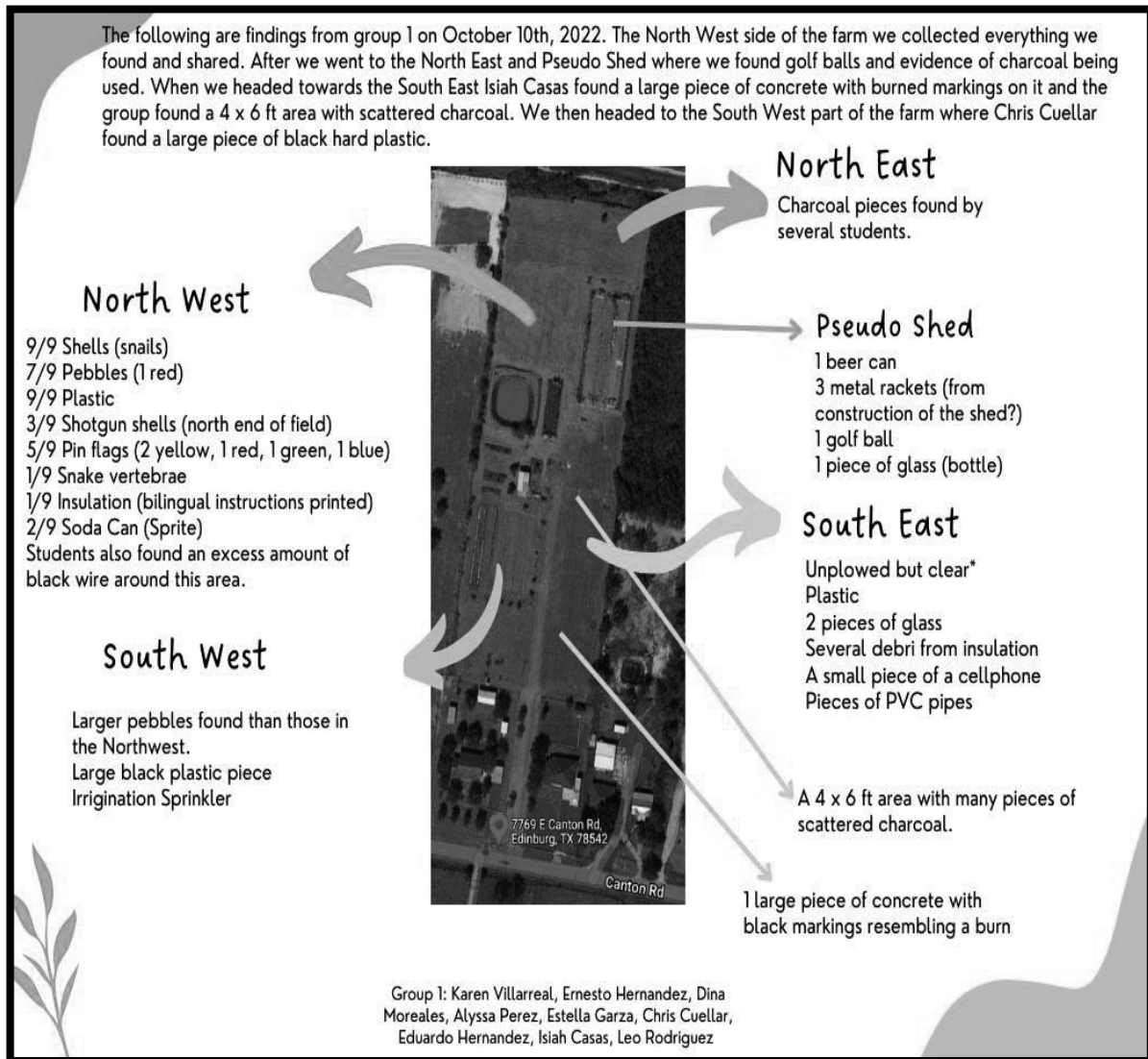


Figure 5.62: Map of the 7-Acre Property pointing out the locations where particular items were found.

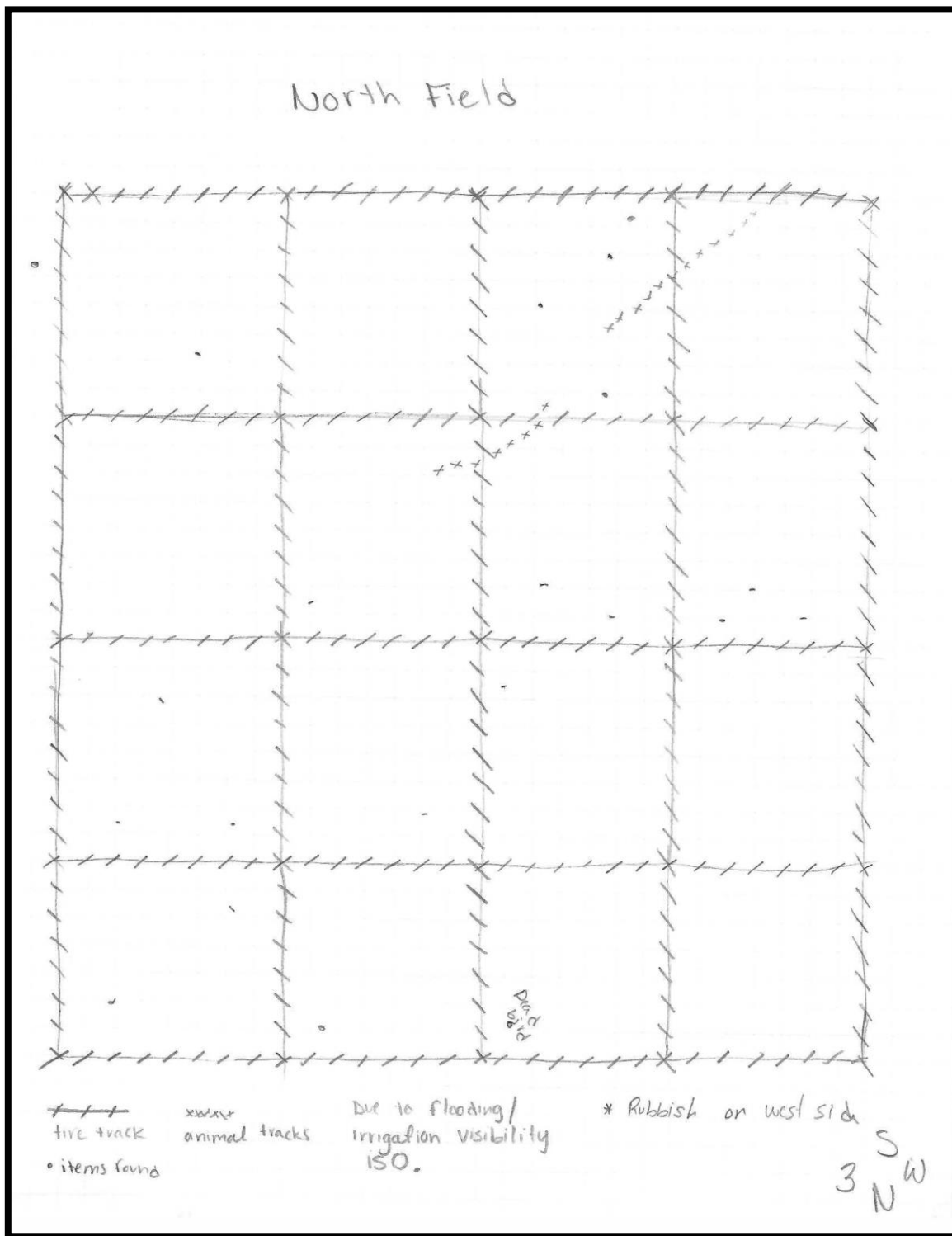


Figure 5.63: Map of the North field of the 2806 Rogers Road property, provided by fellow CHAPS students.

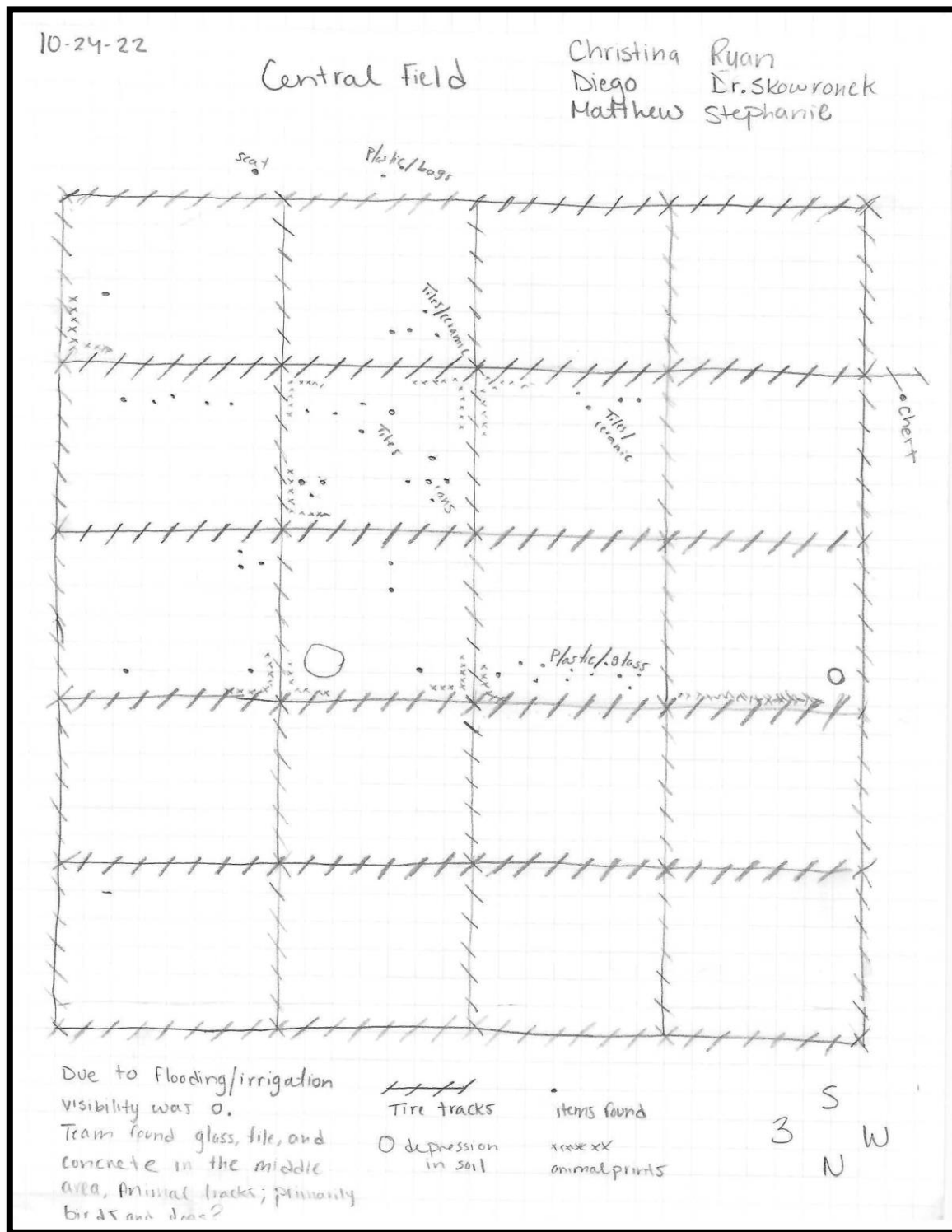


Figure 5.64: Map of the Central field of the 2806 Rogers Road property, also known as the Terra Preta Farm, provided by CHAPS Students.

Conclusion

As you can see, the students in this class benefited from many multidisciplinary experiences throughout the semester. Through land-title research and oral history interviews, the students engaged in learning the history of the property and the Raygoza family. They conducted hands-on fieldwork through biological, geological, archaeological, and material culture surveys. The students worked well as a team in developing their final chapters for the report. Through our class finding of the El Sauz Chert core and the deflation troughs, this was evidence of prehistoric life, we were able to prove this is an archaeological site. Most importantly, the students got to know the Raygoza family, built relationships, and documented their journey to becoming a significant and positive contributor to the RGV community via their sustainable, urban, organic farm. Now, future students and researchers can learn about the Raygoza family and the Terra Preta Farm.

Chapter 6: The Future of Organic Farming in the Rio Grande Valley

Stephanie De La Rosa, Cristina Garza, Estella Garza, Jackie Moran, Diego Rivera,
Leonardo Rodriguez & Ryan Torres

To look towards the future, we must first look to the past and acknowledge one's mistake to make better decisions for the future. When examining the history of the Rio Grande Valley (RGV), we must first look at Texas as a whole, which "historically, [Texas] has long been a large-acreage cattle ranching state. However, a lack of farm succession to the next generation has accelerated recent trends towards land fragmentation and non-traditional landowners, which is necessitating changes"¹ in how different organizations have been and are educating landowners. "Organic farming in Texas has struck many observers as stunted or underdeveloped but published estimates and descriptions of this sector have varied widely."² "Organic farming is an entirely different beast, one that comes with a bushel of bureaucratic and natural barriers." Along with the paperwork, there are fees, which can range from a few hundred dollars to a few thousand. The application asks for a detailed catalog of all substances used on the land during a three-year period and a "written Organic System Plan describing the practices and substances to be used." These measures must be taken into account before "the first seed hits the soil."³ Once initiation of this lengthy process has been done, the real work begins. The National Organic Program, which is a regulator entity within the USDA, requires a transitional period for farmers switching to certified organic produce to last 36 months, and only after this time can farmers begin to market their produce as organic. This is only possible if the crops can survive through the process of replenishing nutrients in the soil.

On June 1, 2022, the USDA's Secretary of Agriculture announced a plan detailing the framework for shoring up the food supply chain and transforming the food system to help farmers in the transition process by "expanding a crop insurance option to allow producers to purchase insurance coverage that better reflects their product's actual value."⁴ This announcement was made in response to the many lessons learned through the COVID-19 Pandemic and supply-chain disruptions caused by Russia's war (2022 - present) in Ukraine and provided details that would be critical to strengthen critical supply chains and address longstanding structural challenges that were revealed and intensified by the pandemic⁵. Through the Pandemic Assistance Program, the USDA was able to provide relief to producers, businesses, food workers, and others. Many of the challenges posed by the

¹ Megan Clayton, Farming for the Future: Adopting Sustainable Agriculture Practices, Texas A&M AgriLife Extension Service, 2017, https://projects.sare.org/sare_project/es13-120/.

² Robert Maggiani, Mike Morris, National Center for Appropriate Technology, 2017, https://attra.ncat.org/wp-content/uploads/2019/05/TX_Organic_Farmers.pdf.

³ Priyanka Mody, The Future of Farming, Texas Monthly, 2016, <https://www.texasmonthly.com/articles/the-future-of-farming/>.

⁴ Priyanka Mody, The Future of Farming, Texas Monthly, 2016, <https://www.texasmonthly.com/articles/the-future-of-farming/>.

⁵ USDA, 2022, <https://www.usda.gov/media/press-releases/2022/06/01/usda-announces-framework-shoring-food-supply-chain-and-transforming>.

pandemic and the war in Ukraine made it evident that food system that had been in place had to change. “The Biden-Harris Administration and USDA recognize we must build back better and strengthen the food system across the supply chain, from how our food is produced to how it is purchased, and all the steps in between.”⁶ “But crop insurance is still sold through private agencies, and the yields for organic produce can be as low as one-third of conventional produce during those three years of transition and after. So, the lengthy and costly process isn’t an immediately rewarding investment, which suggests that only veteran farmers with other options are able to take such risks⁷”.

“The USDA boasts organics as a \$39 billion industry, so there is no debate as to whether the market exists.”⁸ But one of the many challenges that transcends organic agriculture and the industry as a whole, is that it cannot guarantee a farmer a source of income like any other job. Therefore, uncertainty is unsettling for many young people who are entering the workforce. It has become less and less likely to include the younger generations of these family-run farms despite the Texas Department of Agriculture reporting that 98.6 percent of the state’s ranches and farms being run by families or family partnership. However, there has been an increase in sustainable organic farming and new farmers who have little or no family background and formal education in agriculture. The Raygoza’s and their farm *Terra Preta* Farm is an example of this recurring trend, with the difference being that Juan Raygoza comes from a family that has a background in agriculture through both industry and a formal education. Farms like *Terra Preta* have collaborated with different programs that have provided support. A program like the Sustainable Agriculture in Rural Advancement Program (also referred to as SARA), is one of these programs that assist small farmers by providing a subsidy support until the farms are able to sustain themselves. These programs allow farmers who may not be able to receive relief or assistance from other programs to have a form of stability until they can be financially independent. SARA has various ongoing projects that focus on sustainable farms, organic farms, and small land-owning farms largely Hispanic owned farms primarily in the Rio Grande Valley. Juan Raygoza’s position with UTRGV involves being a part of the Beginning Farmer and Rancher Development program that is funded by the National Institute for Food and Agriculture which teaches people who are starting a farm the “dos and don’ts” of farming. The program assists new farmers with the startup process and provides them support through the programs under SARA. But in order to really understand the importance of these sustainable and organic farms, we must first look at the bigger picture, at the grander scheme of things.

The Rio Grande Valley has been seen as a great region for agriculture for more than a century. The leading form of farming practiced is conventional farming which utilizes chemical pesticides, overusing the soil, and does not allow the soil to recover naturally and

⁶ USDA, 2022, <https://www.usda.gov/media/press-releases/2022/06/01/usda-announces-framework-shoring-food-supply-chain-and-transforming>.

⁷ Priyanka Mody, The Future of Farming, Texas Monthly, 2016, <https://www.texasmonthly.com/articles/the-future-of-farming/>.

⁸ Ibid.

regain nutrients for optimal soil health/biodiversity. However, it seems to be slowly changing because of the interest in human health, environmental health, and a deeper understanding of the negative effects of conventional farming tactics. Organic produce is a rapidly growing market, although it is still a small portion of the market itself. The USDA works together with farmers to certify farmers who have made the switch into organic farming, and according to a 2019 Organic Survey combined with a 2017 Census of Agriculture special study, there was a 17% increase in certified organic farms across the United States, with Texas being the 5th largest market for organic products.⁹ Surprisingly, despite controlling a large portion of the organic produce market, Texas has not seen any significant growth in organic farming.¹⁰

In the future, GPS technology, sensors, and robotics will be used in agriculture. With this new technology, robotic systems, and precision farming techniques, farms will be able to be more productive, efficient, safe, and good for the environment. Food shortages are getting worse, and governments need to do a lot to help. In addition to regulating and helping things run smoothly, they must play a more significant and critical role. Land and water must be used efficiently in agricultural practices to prevent damage to the environment and climate change.

Achieving the benefits of sustainable agriculture doesn't happen quickly. It takes time for new ideas to be adapted to different agroecological and socioeconomic settings and for their effects to be seen. For example, fertilizing with organic matter improves the soil's fertility and moisture, but it is a slow process that can take two or more years. For ideas to be appealing, they must be both technically and financially possible. Small-scale farmers could be encouraged to try intermediate technical solutions, like light equipment and cheap tools. Participatory research makes adapting new methods and tools easier for the local environment. Even though it's essential to deal with technological and financial limitations, scaling up requires a consistent plan. One way to promote legislative advocacy for sustainable agriculture is to collect data that compares the pros of sustainable agriculture to the cons of high-input-intensive monocultures. Local actors would need to agree on these issues to make the necessary changes to agriculture policy and practice.

Global Soil Partnership participates in World Soil Day and the International Year of Soils. It also has a systematic outreach and engagement program to help people understand how soil affects their daily lives. High natural values are not only kept because of how farmers run their farms. It is essential for farmers, the agricultural community, and society as a whole to build and expand public support for all kinds of High Nature Value farming. Creative public relations work is needed to get the support and passion of the rural community and the general public and to recognize and praise the farmers' hard work.

⁹ Terry Matlock, Organic: A thriving Segment, USDA, 2021

¹⁰ Justin Walker, Organic Farms see growth in land, consumers, Texas Farm Bureau, 2019.

Many local food producers use organic and natural insecticides to protect the quality of the food they sell. Pesticides are often sprayed in vast amounts on the food grown by large-scale agricultural businesses. Locally grown food doesn't have to take long trips across the country to get where it needs to go. Because of this, food doesn't need to be packed with preservatives or other chemicals to stay fresh during transport. Food that is grown close to home can have a high nutritional value. This is because of several things, such as the lack of pesticides and the fact that the food is fresher. Farming local products is a great way to ensure you eat what's in season. When the dish is eaten in season, the flavors are stronger and taste better. Locally grown food is an excellent option for people sensitive to hormones, preservatives, or other food additives. People with food allergies who eat different kinds of food may get stomach problems. Eating local food may help them feel better. When you choose locally grown food instead of processed and packaged foods that don't provide a balanced diet, you may eat more protein, fruits, vegetables, and whole grains that are good for you.

It is important to see and understand how the food system is impacted, how people are impacted, and how the earth is impacted. These questions will aid us in understanding the role we must play to ensure that there is growth and sustainability of this industry. In order for this industry to thrive and continue to provide for the general population, we must be able to consider and make changes to ensure a positive outcome.

Conclusion

Organic farming has had a direct economic impact in Texas. The gap between consumer and demand for organic grown produce has steadily increased across the state. Although there has been a rise in the number of organic farms in the state of Texas, there is still much to accomplish before this new approach to agriculture becomes the most commonly used method in the industry. The purpose of this study was to compare and contrast traditional commercial farming to organic and sustainable agriculture. This comparison was conducted by referencing previous studies done by the CHAPS Program and comparing the findings to those made on the Raygoza's family farm. Our classmates were able to gain experience in the field by observing different aspects of the anthropological process by visiting the Raygoza family's property. These visits allowed the team to apply what we had learned and create a comprehensive analysis of our findings. The study of the Raygoza's organic *Terra Preta* Farm has allowed us to learn not just about organic farming, but about the RGV and how it has changed and will continue to change.

Through this course, we learned about the history of the farmland in the RGV. A thorough comparison of traditional multigenerational farming that has dominated the RGV to Juan Raygoza's sustainable urban organic farming practices is explained in this report. Comparisons between traditional and organic farming in cultural and labor practices is also examined. The irrigation history of the Rio Grande Valley is also covered and the fact that

classmate Kate Purdum found a lithic source that reaffirms the presence of bodies of water thousands of years ago. Chapter two of this report also covered the current overview of NAFTA and its effect on the Rio Grande Valley. Key statistics are shared from the United States Department of Agriculture to look at active farming practices in the Rio Grande Valley from 1840 all the way to the peak of agriculture in the Rio Grande Valley in 1950. The section shed light on the origin stories of the previous landowners Imelda and her father. Important issues regarding how sustainable agriculture can help to work toward the solution of labor exploitation and diet practices. Providing more humane working conditions is important as well. The real change would come from a nationwide cultural shift that reflects on our country's capitalist core value of prioritizing profit over humanity.

The "Origins and Family Life" chapter illuminates the lives of the Raygoza family members and their call towards sustainable agriculture. The Raygoza family has merged Juan and Shakera's respective origins of Saltillo, Monterrey, Mexico, and Pensacola, Florida, to planting their roots in the deep delta of the Rio Grande Valley of South Texas. They chose our "Magic Valley" because of its location; it is convenient because it's close to Monterrey, Mexico, and connected Mexican and American cultures. They chose organic farming to ensure that their family, especially their children, would experience the benefits of farming without the harmful effects of pesticides used in conventional agriculture. It is not surprising that someone like Juan Raygoza, who grew up with agricultural scientists, is fully invested in farming organically. For the Raygoza's, having an organic farm is not just for health but also for safety.

Juan is well aware of the number of chemicals put into our food and the damage they cause us and our planet. He knows this because he has worked with organizations that did not practice organic farming. This type of work pushed Juan to open a farm where his children could play and could eat the fruits right off the ground without worrying about toxic chemicals. Juan understands the healthiest soils produce nutrient-dense foods, and this can only be achieved through sustainable organic agriculture.

The Raygoza's value health and want their children to grow up in a safe environment. The family farm allows them to enjoy and explore nature to the fullest. Andres, their youngest child, told our class how much he likes looking for insects and small animals around the farm. We know these simple activities would be detrimental if they were conventional farmers using pesticides. Overall, sustainable agriculture is the most appropriate method of farming to use if we want to decrease the damage we are causing to the environment and ourselves.

After visiting the Raygoza's two organic properties, the students of the CHAPS Program made several findings. Directly North of the 2806 East Rogers Road Raygoza's farm location, a deflation trough was spotted while doing a Google Earth map overview. Along with archaeological findings of human modified chert and El Sauz Chert on the south

side of the central field on the Terra Preta Farm. Illustrating human usage of stone tools provides evidence indicating human occupation of this parcel far in the past.

Organic Farming is a very complex industry that is filled with hard work that yields results that benefit both the community and the planet. Juan showed us the process and methods he uses at his farm so his family and customers can enjoy safe and delicious vegetables. To accomplish these goals, the Raygoza family ensures that their crops grow naturally with water – efficient irrigation methods that uses drip tape as well as using essential oil-based fertilizers. They also use equipment like high tunnels to protect their plants from pests and the elements. These factors help grow safe food that is chemical free and environmentally friendly. However, to make sure the public knows that his vegetables are the highest quality, Juan obtained an Organic Certification with the United States Department of Agriculture. This was no easy task because the USDA has a very specific set of regulations that need to be followed to obtain this certification. Shakera shared with us the inspiration behind the birth of *Terra Preta* Farms. When the family noticed that they harvested more food than what they could possibly eat, Juan had the idea of selling at farmers markets. This was the inception of a journey that led to the birth of *Terra Preta* Farm and now the Raygoza family has evolved from selling their extra food at farmers markets to selling wholesale to supermarkets and restaurants and even having an online store so customers can buy and enjoy their delicious products. All this success inspired Juan to help the community of the RGV and people who want to become organic farmers. As part of the UTRGV Center For Sustainable Agriculture and Rural Advancement, he is instrumental in providing educational opportunities for local farmers and research opportunities for university students. The Raygoza family and *Terra Preta* Farm inspired a deep respect for organic farmers, and we hope that this report inspires you to try some certified organic vegetables.

Appendix A

Interviewee: Juan Raygoza

Interviewers: Leonardo Rodriguez

Interview Date: October 29, 2022

Interview Location: 806 E Rogers Rd, Edinburg, TX 78542

This interview was conducted in person on October 29th of the year 2022. The interview lasted approximately 43 minutes. The interviewee was Mr. Juan Raygoza who shared his history with sustainable agriculture and the logistics behind his sustainable practice as opposed to traditional farming. Mr. Raygoza shares explanations for student observations and findings on both of his farms and he also gives us insight into his project as the director of the University of Texas Rio Grande Valley's Sustainable Agriculture and Rural Advancement program.

Leonardo Rodriguez: Hello, this is Leo Rodriguez interviewing Juan Raygoza on Saturday, October 29th, 2022. Okay. Thank you, Mr. Raygoza. First question let's start off right here. On your Canton Farm, we noticed charcoal, one student found a large piece of concrete with burned markings. Was that something that you guys did? Or was it already there? Your wife, Shakera had mentioned biochar...

Juan Raygoza: Yes. You saw that charcoal there because the name of our farm is Terra Preta. And I read that in Brazil by the Amazonian River they discovered some soils that were very fertile. They were very good soils for production. And so, they were wondering why that area was so good and fertile. With time they concluded that the natives of the region improved these soils using char and they called it Terra Preta Do Indio. Do Indio means of Indians or natives. And our long-term goal, because it takes a long time to build the soil, is to have very fertile soils like those in Brazil. It takes very little time to destroy something, but it takes a long time to build it. You probably saw some big tanks at the Canton farm, those are a project I was doing with a colleague to make biochar and start adding it to the soil. The reason why charcoal is used is because it's a very porous material, and it holds nutrients. Also, it's like a little hotel for good microbes, they live in the tiny spaces, and they help the plants absorb nutrients

Leonardo Rodriguez: Makes sense. Why is there hay bales on your Roger's property towards the side facing the school? Is it there for protection against certain animals? Was it produced here at the farm or was it just left there?

Juan Raygoza: Okay. The hay was produced here. It was bales from Sudan grass and the reason it's there, it is because I contracted someone to bale it, and there was rain coming

soon and he decided to bale it but it wasn't completely dry and started to get moldy with the moisture and heat, so it wasn't good for feeding. We baled that time around one thousand bails and we have that road on the east side that gets dry and dusty and when the wind comes from the south, it's very strong and sometimes that burns the leaves on my radish or other crops when they're tender. I was thinking [about] what to do with all these bales. So, I thought of creating a little barrier to protect the plants from the wind. That's why you saw those hay bales over there.

Leonardo Rodriguez: What type of machinery do you use on the farm? Compost spreader, different tractors, uses?

Juan Raygoza: I have been using smaller tractors and equipment from the beginning, we use the typical farm equipment just in a smaller size, we have a harrow disc, a tandem disc, we have a ditch blade. We have a row maker, bed shaper, chisel, sprayer. We also use the front-end loader on a tractor. We have a four-row vegetable planter. It's a lot of different things you use on the farm.

This season we are experiencing growing pains as far as equipment since we contracted with another farmer to plant our onions, but they use larger tractors and different spacing, so we are actively looking for different implements.

Leonardo Rodriguez: Is there a special tilling apparatus that help the health of the soil?

Juan Raygoza: Well, yeah, it is always good not to till too much. And I was mentioning to you, about those microbes, we usually just concentrate on the plant. Oh, the plant doesn't look good. The plant has this pest, but if we see problems on the plants, it is because we have a problem in the soil. Tilling too much is bad for the soil So we, till with a disc but we tried not to overdo it. Some row crop farms are incorporating no-till or minimal tillage practices but in this type of farming we do, we have to because, we need a clean bed free of debris so the planter can go smooth in the soil and plant the little seeds in a uniform way. The farmers that are doing no-till, have big planters with discs that cut through the previous crop, and they plant bigger seeds such as sorghum, corn, cotton, and other crops that don't need a very clean planting bed.

Leonardo Rodriguez: Okay. How many fields within the 20 acres are there on Rogers Road property?

Juan Raygoza: Well, this property was just 20 acres. It was very uneven. And not only on one side, it was like the slopes were going on different sides and different elevations. So, we worked with NRSC, the Natural Resource Conservation Service from USDA, and they came and laser leveled and created different sections. So now we have six fields or plots right now.

Leonardo Rodriguez: There was a pond on the seven-acre property on Canton Road. What is that used for?

Juan Raygoza: That Pond is used for irrigation. There are some irrigation districts that struggle to run their water pump very often so a pond is a good solution since they can give you water, you fill up the pond and it will last for a whole month or so using drip irrigation. With time, we started seeing fish because the water comes from the river and there is a method for growing vegetables called aquaponics on this method, they raise fish, and they recycled the water to irrigate the crops. So, in a way, I was doing some type of aquaponics there without planning it because there was fish, and I was using that water with the nutrients the fish provide.

Leonardo Rodriguez: What are the high tunnels used for? We saw these on both properties.

Juan Raygoza: Up North, high tunnels are usually used to protect crops from the cold, but here we use it to protect from the cold, the wind and even the heat by adding a shade cloth at the top during the summer months.

Leonardo Rodriguez: At the Rogers Road property, there was drip irrigation set up towards the south end of the farm. Talk about the advantages of this type of irrigation system. What crops benefit the most from drip irrigation?

Juan Raygoza: Well, I would say any crop can be benefit from drip irrigation because you're going to place the drip system right along the root system. And the benefits of course are water conservation because you use considerably less water than flood irrigation. Another benefit is that you are just watering the area around the plants, you have less weeds than when you flood irrigate, and when we irrigate, we just see the weeds where we water is, but not in between the beds. Another benefit is that we can irrigate at the same time we can be harvesting because where we walk is dry, it's just watering where the plants are. Also is very helpful that we can use the drip hose or drip tape to inject fertilizer for the plants. We inject our fertilizers where the pump is located and we inject nutrients such as fish emulsion, nitrogen extracted from soy, etc. And so, all that food is also being fed to the plants right in the root system. Now there are some challenges when using this method, at the end of the growing season, we need to remove all the drip tape from the fields and its labor intensive. Also, we don't like to use so much plastic but water quality here in the valley is not very good for sprinklers or other irrigation methods. The good thing is that there are companies that are recycling the drip tape. At the end of season there is this guy that allows us to use a large baler where we make big bales of all the drip tape we used during the season, and they sell it to the companies to recycle it. But still, we would like just not to use so much plastic, but we must.

Leonardo Rodriguez: There is a large irrigation breather and pump at the southeast corner of the Rogers Road Farm. Talk about the water and how it is purchased through the irrigation district. Are there certain seasons where the water is or is not available to farmers?

Juan Raygoza: Okay. So, what you saw over there is called a standpipe. It's a huge pipe, I would say 24 inches wide where the irrigation district sends the water here to this property. The breather is just for the pressure. I have valves on each of the fields. And so, when you open the main valve, the water starts flowing fast because we have a slope and it's very strong that it could break a pipe if you didn't have those breathers. When you open the valve water flows, but there is also air, and the water pushes all the air, and it will break the pipe. And so that breather allows the air inside the pipe to come out. The way I get water is first I go and purchase water at district number 1, after that I get a water ticket number, I call the Canal Rider to schedule a time to receive the water. This property has water on the pipe very often and I think they use this line to move water to different places, this helps me a lot because I don't have to wait too long to get water.

Leonardo Rodriguez: Do you raise any animals on the farm?

Juan Raygoza: Yes. Right now, the only thing we have is laying hens. We have 12, and that's more than plenty for a family of five because at the end of the week we have a surplus of two or three dozen. Those 12 hens, they have been producing 12 eggs daily for the last, five or six months.

Leonardo Rodriguez: What suppliers do you use for seed, for crate boxes for product sales? Organic packing shed.

Juan Raygoza: My wife tends a smaller garden, and We buy the seeds from a place called Johnny's Seeds. And they are located way up north, I think they're in Maine. The rest of the other seeds, like more volume we buy them here locally with Seedway company. For crates, for the wholesale project. We rent them from a company called IFCO. And they have a system with the grocery stores where, let's say we're selling to HEB, so we will pack our product in their crates, take it to HEB, and the company picks the crate from HEB, they sanitize it and then we get more. We pretty much pay a rental fee instead of buying them. And then for other suppliers, we use J&R Supply here on Chapin Rd. They have been serving the farming community for so many years with Cardboard boxes, rubber bands, sacks for citrus. They sell all you need for packing to the farming industry here.

Leonardo Rodriguez: What food safety issues do you have to consider when farming organically on their property? What certificates do they hold to qualify them to be officially labeled as organic farming?

Juan Raygoza: Okay. There is a Food Safety Modernization Act that came out a few years ago. We have taken two courses on that subject. During harvest time you need to be very observative, you need to look out for dead animals or anything that might affect food safety on the field, we don't have control over a bird dying on the field or a dog, stuff like that. Before you harvest, you monitor your area. If you see something that is a potential risk, you

need to mark it down with flags and leave 10 feet around the perimeter where you cannot get close to that. We rinse all our produce with a product based with hydrogen peroxide that is called Sanidate. We purchase it here locally. And that helps us with our food safety, make sure that when the products leave the farm, they're free of bacteria or things like that. As far as the organic, we have an organic certifier that comes from up north, its name is Nature's International Certification Services and they check all our seed purchases to make sure they are chemically untreated, products we use, our water etc. This agency does a thorough evaluation. They ask us a lot of questions to make sure we are complying with their regulations, how ironic that us trying to grow clean food have to pay a fee and go through a lot of paperwork and management and the ones using very toxic products get a green light.

Leonardo Rodriguez: Awesome. Yes. Please comment on your work with the UTRGV, Sustainable Agriculture and Rural Advancement for the SARA Program and the \$700,000 grant for which you serve as director for the Beginning Farmer and Rancher project.

Juan Raygoza: This program, it's a national program, The Beginning Farmer and Rancher Development program is funded by the National Institute for Food and Agriculture. It's been great for me to work in that program and be able to teach people that are starting to farm what they are supposed to do what they're not supposed to do as well. I have learned as I go, I have learned so many things by trial and error. So, it's been great working on that program. I think it's a program that is very necessary all around the world, especially here in United States because, the average age of a farmer is 59 years old, 60 years old, many of their children, they're not continuing the path of farming. Urbanization is happening at a very fast pace and we're losing a lot of farmlands. I think this program is very important and my role there at SARA, which is the Center for Sustainable Agriculture and Rural Advancement, we have two staff members under this project, and they're both farmers and I'm a farmer. So, I think it's very important to have people that know about farming because we can, you know, teach the people by experience not just give advice from the desk. I know how important it is to support new farmers right on the field, is very different if they would go to my desk and ask me how to do something and I just said, go and do this but when they get to a field, they still have questions. But it's very different, when you go to their farm and you give them a hand, I mean, pretty much grab them by the hand and help them during the startup process. Our program here at UTRGV is different from other programs. We go to the farms, to the people to evaluate the soil, the water source, etc. And we grab our gloves and our tools, and we help them. By doing this, we motivate them because farming is a communal activity. And it's very different to be by yourself with a garden hoe in the heat that when it is two or three people and you see get to see the advancement, because I'm a farmer, I decided to run this program in that way instead of just providing, a pamphlet with information.

Leonardo Rodriguez: What is your history in the Borderlands or South Texas, uh, the Valley? I know you're from Saltillo, which isn't too far from here. Has your family visited the Valley before?

Juan Raygoza: Yes, both my mom and Dad, and then also my sister and her daughters have visited here. My mom and dad love to come here. They love to come see the farm but more to see the grandkids. My history here in the Valley is, I remember coming as a kid with my parents, they will bring me once a year, maybe November, December, for the “Christmas shopping”, they will give us some money and say, okay, buy a gift or something. And that's how I got to know a little bit of the McAllen area, we would come and go to the mall and maybe a few stores my parents knew. And then that was it, we did that for a few years. Later, I moved to Utah to learn English and I lived there for three years. On September 2007 I moved here with my wife and our oldest daughter Shakera Elizabeth and that's where everything started here in the RGV. When I came, I did not have a job, so I just started driving around and handing out resumes, I was very blessed because within a week they called me for a job interview at Pioneer Seed Company. I worked there for a year monitoring the tasseling of the corn but in my mind, I was already really interested in sustainable agriculture, and that was everything that I wanted to do. Organic farming, sustainable farming. So, I worked there for a year. And then I joined Texas A&M Kingsville to do a master's in plant and soil science. And my thesis was researching on different organic products to control the Asian citrus psyllid, which is the one that causes ‘yellow’ greening disease causing a lot of damage to the citrus farming industry in Florida, California, Brazil, and here in the valley. After I graduated. I went and worked for an organic citrus farmer in Mission for another year. Then my wife worked for a year while I started farming on my own, while I was doing that I was offered a job at UTRGV by Amelia Sanchez an Agronomist from Chihuahua Mexico that was running the Beginning Farmer Program back then, I accepted and I have been working there for 11 years now, also I have continued farming on the side since then up to now but now with two more children.

Leonardo Rodriguez: What current social issues, uh, do you notice in the borderlands? It's a very broad question, but what, any social issues that you noticed?

Juan Raygoza: I think one big issue here is the diet. We need to educate the community on eating healthier, exercise a little more so there are less chronic diseases. Urbanization without considering food security is another problem. Education can be improved, and Corruption is another social issue.

Leonardo Rodriguez: Is there any current issues specific, specific to agriculture in the valley that you became aware of once you moved here that you did not expect that you would have encountered?

Juan Raygoza: We struggle to find good labor to work in the farm. It's very hard, I feel like the reason is because a lot of people have been field workers before and it's hard work. The parents tell their kids to stay away from farming and do something better. It's understandable but Organic farming or farming that does not pollute, should get more incentives to provide

better conditions to employees, it's ironic how a kidney care employee gets paid very well working inside with AC and a worker working in an organic farm that does not use chemicals make very little compared with the other. Good food and clean farming should be a priority for the government. Things would be better as far as health and some social issues.

Leonardo Rodriguez: Is there a solution to that issue? Do you think there's a solution to it?

Juan Raygoza: Um, yeah. Um, it's a surreal solution. I don't think it's going to happen, but it would have to be a dramatic change at very high levels and change the whole production system. You know, it is not going to happen. But yeah, there is a solution. We would have to really focus on taking care of our water, our soil, and of course the people in the first place, if the vision was to make sure our communities in the country were getting well fed with good nutrition, have access to clean water and air we would have a healthier society. If the government would put more effort into that area and subsidize organic farming to reduce pollution, then we could pay more and start making agriculture more appealing to the youth. Currently in the US what is being subsidized are Mono crops such as corn, soy, cotton, wheat, rice and sorghum and these crops use a lot of chemical herbicides, fungicides, pesticides etc. And so, you see they are not putting the air, the water, and the health of the people first. They are putting profits first and so if we switch that, then that will be a solution, and it will be a very good solution because we will see better health, we will start seeing a decrease in disease. Just by eating less chemicals and the air and water being cleaner.

Leonardo Rodriguez: Were you accepted by the general community as a new vendor at the farmer's market down here?

Juan Raygoza: Yeah, when we started doing that, there was a boom here in the valley where people were really into organic food. The big grocery stores did not have a lot of organic vegetables back then, so people were really interested in attending and buying our produce. The farmer's market manager was all into health. He was an iron man runner, like Triple Ironman winner. He was all into organic vegetables, and he used to bring all his group of friends to the market, and it was a great time.

Leonardo Rodriguez: Were you accepted by the farming community as a farmer, knowing that you don't do things conventionally?

Juan Raygoza: Well, I don't really deal with large scale farmers. I have my little community of small-scale farmers, So I've always been, I think, accepted. I'm part of the organic community, so yeah. No problems there.

Leonardo Rodriguez: What is the RGV stance from what you've seen on organic versus conventional farming?

Juan Raygoza: Organic Farming is still very, very small. Just four years ago, one of the largest farms here in the valley, started, an organic program. And they started with 40 acres and within four years I think they're around 300 or something acres. I think they're the largest right now. But still, if you compare apples to apples organic versus conventional, we're very small. The big thing is conventional.

Leonardo Rodriguez: Have you heard about the term, the Magic Valley? What does it mean to you, or what is your history with that term?

Juan Raygoza: Well, my previous boss, he knew a lot about history and he shared during a National conference we hosted here for the beginning farmer program the story of the magic valley, so I don't know all the details but I know it was created back then, you know, to boost the valley and agriculture in here.

Leonardo Rodriguez: Are you familiar with John Shary? With, and the term Magic Valley, with John Shary. Do you associate that with the Magic Valley?

Juan Raygoza: Well, I, I don't recall, I'm very bad with names. Is it the person that like developed the whole marketing strategy?

Leonardo Rodriguez: Yes. The propaganda, like the Magic Valley,

Juan Raygoza: Who planted palm trees and everything? Make it look nice?

Leonardo Rodriguez: So, if we talk about like antidotes or solutions to the problems that we created a Century ago, I'm going to focus on three topics. These questions can be personal to sustainable farming practice. Basically, is sustainable agriculture the antidote to the poison the Magic Valley has injected in our area for the past 100 years. And the first part is the land, does sustainable agriculture, cure the land from the damage conventional farming has caused?

Juan Raygoza: It does, but like I mentioned before, it is like a long-term project, I mean, conventional farming, kills many beneficial microbes in the soil when you use chemicals. And conventional farmers keep the soil bare. They start getting eroded, they fly away. And so yeah, sustainable farming can be improving and fixing the problems caused during the last one hundred years, but it's not easy. It will take some time.

Leonardo Rodriguez: The second part of the question is now healthy food. We keep seeing commercials these days that refer to the product Roundup and how it's cancer causing, and it has negative lasting effects when used. Does sustainable agriculture create a healthier community? Why are organic vegetables healthier? Is there proof We always hear about

cancer percentages being high in our area. Would you say organic farming can help us with that?

Juan Raygoza: Definitely, yes. If we transition all the farming acres here in the valley to organic, we will start seeing smaller levels of atrazine in our waters, chemicals, glyphosates, that'll be a game changer. Just not having all those chemicals in our water, in the air. You know, sometimes here in the valley you're driving with your windows down and they're spraying an orchard, and it gets all in your car. All that toxicity it's adding up, you know, it's adding up. I know the cancer rates here are higher and yeah, not using those things would help with being healthier.

Leonardo Rodriguez: And so, you mentioned this before, how before it was hard to get that, that labor because everything is for profit. As far as conventional farming, the golden question that our borderlands peoples have is our local borderlands. People from both sides of the river have been exploited for their labor. A century ago, it was one of the main driving forces to get the Anglo farmers to come in with those pamphlets that portrayed where Anglos were laying back while the Mexicans did all the work. Does sustainable farming fix the issue of exploiting the people from the borderlands. For example, does sustainable farming pay the farm worker a fair wage, do you offer health insurance to farm workers? Do they get paid during time off or paid time, or like maternity leave, for example. Does sustainable farming fix that issue of like, exploitation of the labor?

Juan Raygoza: Well, you know, it's a tricky question. It's kind of hard to answer. A lot of the people that are doing sustainable farming are doing it at a small scale, small farms. And of course, as you know, organic produce has had a continuous increase in sales in the last 20 years. Every year. More sales, more sales, more sales. So, what happened now is the movement started with a good vision, you know, small scale farmers trying to grow clean food but of course the large-scale farmers noticed, that this is a good niche market and there are premium prices. So a lot of those big, big farms now they're growing organic too. So, I don't know if they are paying more. I don't know if they're just switching the products from chemical to organic products only All I can say we're still considered very small farmers and we try to pay more. We try to pay all our workers more than they get paid on a conventional farm. The price is more expensive for organic food but it's also more labor intensive since we don't use strong chemical products that have residue for a month or two.

Leonardo Rodriguez: Thank you so much Mr. Raygoza. With this, we will conclude.

Appendix B

Interviewee: Juan Raygoza

Interviewer: Christopher Cuellar

Interview Date: November 6, 2022

Interview Location: Raygoza Home

This interview was conducted on the 6th of November 2022 in the shed that sits behind the Raygoza home. The interviewee was Mr. Juan Raygoza, patriarch of the family, and owner of Terra Preta Farms.

Christopher Cuellar: Hi, my name's Chris Cuellar, I'm here with Juan Raygoza, and...uh... we're gonna be doing an interview for his, uh, family life...um... today is Sunday, October...oh sorry November, November 6th and we'll go ahead and get started. So, um, tell me about your childhood in Mexico. Where are you from? Who are your parents? And do you have any brothers and sisters?

Juan Raygoza: OK, so I was born in Torreon, Coahuila and shortly after, I moved to Saltillo, which is the capital of the state, and I was raised in Saltillo the rest of my life pretty much.

C.C.: Oh OK.

C.C.: So, Saltillo is the capital.

J.R.: Yes

C.C.: So, it was kind of a bigger city?

J.R.: Yes.

C.C.: So, would you say you were more, like, city living? Or did you still kind of live in the ranchos?

J.R.: I was a city boy all my life, although my family always owned some land that we would go to occasionally, so we got to work cleaning rocks, nopales and planted corn by hand.

C.C.: Really?

J.R.: I had some background in agriculture from my relatives, my grandparent, my great-grandparent and uncles but they were more into research

C.C.: mmm...

J.R.: Agronomy.

C.C.: Mhmm...

J.R.: My Mother is Mireya Castro, and my father, Juan Manuel Raygoza Amozurrutia, so I'm a junior.

C.C.: Ah, OK.

J.R.: So, my dad is Juan Manuel...his dad was Manuel and then they named me Juan Manuel, then my sister's ex-husband was Juan Manuel, and then they wanted me to name my kid (laughing) Juan Manuel!

C.C.: Juan!

J.R.: So, I said, I'm sorry don't take offense Dad, but that's it, you know? And we named our son Andres. I have an older sister, her name is Estela Angelica.

C.C.: Ah, OK.

J.R.: Which is, the same name as my grandmother.

C.C.: It's actually—

J.R.: on my, my mother's side.

C.C.: It's my mother's in-law's name.

J.R.: Oh really?

C.C.: Yeah, Estella.

J.R.: Yeah, that's Mexico. A lot of Juan's and...all kinds of names...Marias.

C.C.: Um, so how is family life in Mexico? Uh, were there any special occasions, holidays, experience that you feel really shaped you today?

J.R.: Family Life in Mexico was good; we were close and grew up very close to my cousins.

C.C.: mhmm

J.R.: Something that shaped me was...We used to have like family council every once in a while. My dad would call us on a Sunday evening. Sit. And then we'll do some church stuff like, read some scriptures and pray, and then we'll talk about the family. About what was going well and what could be improved, make goals and plans for the future.

C.C.: That's super awesome. Alright, and I know you mentioned right now that, um, your...your parents and your grandparents all worked in agriculture, so um, what was your 1st memories working in agriculture?

J.R.: Well, the 1st experiences were stories only, my mom...telling me stories about my grandparent... That he was very young, and they hired him to shoot moles in the fields, I was impressed by him working so young and using a gun.

C.C.: Uh-huh

J.R.: So, you see I grew up on those conversations. My mom telling me, memories about she going with my grandpa to the field, and what would she do, sometimes just waiting for him being close to rivers and all those little things started getting to me. And, at a very young age I wanted to join the University my ancestors joined. Which was *Universidad Autonoma Agraria "Antonio Narro"*

C.C.: Awesome, and then speaking of your education, what did you pursue and why?

J.R.: My degree is Agricultural Engineering with a major in Horticulture, I pursued that because it called [to] me, I grew up being part of that university since I was so young. My Mom and Dad worked there, and they were part of the union, and when there was a strike, the employees had to guard the entrance to the university, and I remember my parents preparing a meal for us and sleeping in the car while it was very cold. I knew a lot of employee friends of my parents.

C.C.: mhmm...

J.R.: So, in my bedroom window, I had a sticker of the University since I was in middle school I knew I was going to go there.

C.C.: Oh, that's super awesome!

J.R.: So, school was tough, it was 4 years and a ½, and we had to take, statistics, experimental design, calculus, physics, topography, hydraulics and many other subjects.

C.C.: Wow...

J.R.: It was tough.

C.C.: Yeah

J.R.: We had some tests, like that would last 6 hours or more. The professor would say "Hey, in a couple of weeks, we're going to have a test and I already spoke to your other professors, cause you're gonna be here all day!"

C.C.: Yeah.

J.R.: So, I was like "What!?"

C.C.: Wow...

J.R.: Yeah, so it was tough.

C.C.: Yeah.

J.R.: All that formation helped me to get the basis of Agriculture.

C.C.: Yeah. Wow, that's so interesting. And then, so besides farming what else are you passionate about?

J.R.: Well, I was never that good, but I was passionate about basketball, My Uncle taught my cousins and I started playing since [I was in] middle school thru high school. Even now I still like it and just recently I joined the city league even though they beat us really bad, but it was fun.

C.C.: Yeah?

J.R.: Another thing I like is music.

C.C.: Really?

J.R.: Yeah, I learned to play guitar when I was 9.

C.C.: mmm

J.R.: My grandparents were older and a little sick, and my dad was doing a master's degree that allowed him to work in Torreon so my parents decided to move with my Grandparents for a year, and my grandmother was the owner of a private school that I joined and that's where professor Jaime Avila Canedo taught me to play guitar and I joined *the Rondalla del Colegio Panamericano de Torreon*.

C.C.: Oh Wow.

J.R.: And so yeah that, that was cool. Uh, we got to sing, perform at an old age auditorium. And, and then they put me to sing a song solo! I don't know if because my grandmother was the principal or because they thought I was good. But they put me in there, and when it was time to perform, I said, "You know what? I'm not doing this!" There was a lot of people! And so "I'm not doing it, I'm sorry." I was so nervous. So nervous.

C.C.: Yeah?

J.R.: And my grandma, I remember. She came out with a big bill back in the day, it was 50 pesos.

C.C.: Yeah.

J.R.: It was a lot of money in those days. Those bills just came out. And so, I said to myself..." You know what? I'll do it."

C.C.: Do you remember what song it was?

J.R.: Yeah! It was called "*la cholita*". So, a part of the song was done by a girl singing and then I would sing another part, it was an interaction.

C.C.: Yeah, Oh that's cool.

J.R.: She was very good. Actually, my mom told me that she still sings but now professionally.

C.C.: Wow!

J.R.: Like she has a CD and everything.

C.C.: Wow!

J.R.: When I grew up, I stopped playing guitar for a long time, and then the interest came back when I was in high school and my friends and I formed a Rock Band.

C.C.: Really?

J.R.: I did not expect my cool friend inviting to for a band with him, so I was super excited about it, you like rock?

C.C.: Yeah, I like rock.

J.R.: We had a great time with the band and the Drummer and Lead Guitarist we very good so that helped us to catch some attention. Actually, right after I left Mexico, they invited them to play with a cool band from Monterrey. They opened for them!

C.C.: Really!?

J.R.: Yeah

C.C.: That's super cool, and so you mentioned um, like, when you came to the...the United States, um, what caused you to relocate? Um, where did you go and what did you do here?

J.R.: Well, you know I came to learn English. But the reality is I wanted a change in my life and get to know other places.

C.C.: mhmm

C.C.: Wow, that's awesome. So, um, do you plan to stay in the Rio Grande Valley? Or do you plan on moving somewhere else?

J.R.: When my kids grow up and leave...I don't know.

C.C.: mmm

J.R.: I don't know, if when my wife and I is just the two of us I don't know if we might move to another place but right now we are staying here even with the shootings at night, potholes in the roads and bumps with no signs. Viva el vale.

C.C.: Yeah.

J.R.: I like it here, I like my kids, get to see a little bit of Mexico

C.C.: mhmm.

J.R.: They played Mexican music at their dances at their games, and the Spanglish everyone speaks!

C.C.: Yeah, that's good... that's good... um, so speaking of your wife, how did you meet?

J.R.: We met online. I was living in Utah, and she was in Florida. And I met her right before I was going back to Mexico for some time.

C.C.: mhmm

J.R.: While I was in Mexico we kept chatting and calling using those phone cards back in the day.

C.C.: Oh OK, yeah!

J.R.: We dated for a year, then we got married. 2 parties. One in Mexico.

C.C.: Really?

J.R.: And one in Florida.

C.C.: Yeah...Um, so do you, do you often get a chance to visit your family? Or um, do they get to come here to the RGV to visit?

J.R.: Yeah both! My Parents visit us 2-3 times per year and we go maybe every other year.

C.C.: Uh-huh.

J.R.: Yeah...

C.C.: That's good.

J.R.: Yeah.

C.C.: So uh, when did you and Shakira move to the RGV? Uh, where did you live? And where did you purchase property?

J.R.: Ok, so we were living in Utah...uh...and, uh, we came here in 2007. Right before my mom's birthday, so we came here probably end of August, and we went to celebrate my mom's birthday in Mexico, September 5th. When we got here, we rented a little apartment in Weslaco.

C.C.: Oh, Ok!

J.R.: It was a two-bedroom, two-bathroom...um, yeah so, that's...that's the first place we living here in the Valley.

C.C.: And when did you, uh, purchase property? Like the 1st time.

J.R.: OK, the 1st time was 2010 right after I graduated from my master's degree and I got a job. I was working for an organic farm in mission.

C.C.: OK.

J.R.: And, uh, we purchased a little home in Weslaco.

C.C.: Oh wow, that's cool!

J.R.: Yes, a 3, 2 with a little backyard. It was a nice house we had a lot of good memories there.

C.C.: Alright, that's good!

J.R.: Yeah.

C.C.: Do you have any Mexican family traditions that you still participate with your family?

J.R.: Uh...let me think...uh... of course, the food. You know the food. My wife, now she knows a lot of Mexican dishes. Uh, my kids know the Mexican dishes. We celebrate the Independence of Mexico at Church with food and dance. Sometimes when we go to Mexico we do "La Posada" where a group of the family goes out of the house and sings songs while holding a candle and the lyrics resemble Joseph and Mary asking for a place to stay then the family inside lets them in and then they all eat and celebrate together.

C.C.: Yeah, like...do you do the, um...the...what is that, Tres Magos?

J.R.: Ah, *Los Tres, Los Tres Reyes*?

C.C.: Yes!

J.R.: Yeah, we do the *Rosca de Reyes*.

C.C.: Yes?

J.R.: Yeah.

C.C.: Ah ok.

J.R.: My kids, so...you see, that's another thing in the Valley I like, you find the Rosca de Reyes at the stores and bakeries.

C.C.: Oh yeah!

J.R.: And in most of the other places you don't, so... yeah, we do Rosca de Reyes.

C.C.: Wow, that's cool. Um, so we noticed that you have a dog, um, here on the property. What's the dog's name? And, um, how long have you had her? Does she have duties that she does on the farm?

J.R.: Yes! My kids have 2 Chihuahuas. And the outside dog "Britney" we got her for my boy, for Andres.

C.C.: Oh

J.R.: So, her name is Britney. I used to have a dog of the same breed and the same name in Mexico.

C.C.: Ahh OK!

J.R.: And when I left, my dad adopt her so...

C.C.: Oh OK!

J.R.: He continued taking care of her, so it's like a reincarnation. Is the same breed, same name, Britney.

C.C.: Yeah.

J.R.: And her duty, I mean she stays out, she takes care of the place, she barks when someone arrives, when dogs get close, she gets rabbits, rats and she chases birds that get inside the greenhouses.

C.C.: That's a good farm dog!

J.R.: Oh yeah! Or if I go to the back, you know at night or something she hops with me in the car...

C.C.: Yeah, they're very, blue heelers is — are very smart dogs.

J.R.: Yes.

C.C.: So, what kind of family activities do you do with Shakira and the children?

J.R.: OK, with Shakira my daughter we both love music.

C.C.: Oh OK!

J.R.: When my wife was pregnant and we were in Utah, like, I would listen to a lot of music. I don't know if you remember, back in the day, there was this software called Ares and you could download songs.

C.C.: mhmm.

J.R.: So, I had a bunch of songs!

C.C.: Yeah!

J.R.: All kinds of music

C.C.: mhmm.

J.R.: So, through my wife's pregnancy my daughter got to listen to a lot of music and I think that's why she loves music as I do, she's always listening to music so, sometimes we just sit in the table, and listen to Spotify to find new cool songs.

C.C.: Oh, that's good.

J.R.: Sometimes we do karaoke. She likes to sing, uh...She, uh, she is trying to learn guitar, so sometimes I help her out a little with guitar.

C.C.: That's awesome!

J.R.: But the main activity we do is listening to songs and share songs and sing together. With my wife and the other kids, we played Basketball, Travel, go on Bike rides, sometimes we all work in the farm. We go to my kids Basketball games and cross country.

C.C.: Wow, that's super cool! Uh, so when did you get your job with UTRGV? Has the job changed at all since you've gotten it?

J.R.: I started working in 2012, I was selling at a farmer's market and I met someone there and said, "Hey what are you doing?" "Well, I'm, I'm trying to grow organic vegetables!" And her name was Amelia, Amelia Sanchez. She's still a very good friend. And she is like, "You know what? I'm hiring someone that can teach people about farming." But well, I have a degree in agriculture, and so we became friends. Uh, she was like, "Well, why don't you apply?" so I applied and then I end up getting the job and I'm gonna be 11 years working there this coming February.

C.C.: Wow!

J.R.: And uh, it has changed a little bit uh, the main...um... the main purpose of the program is the same, which is teaching beginning farmers.

C.C.: mhmm.

J.R.: Just the staff, has changed like my...my previous boss, he retired. My coworker, unfortunately he passed away, uh during COVID. So, we have new staff. But the main thing is just, continue to teach the beginning farmers. So... I like it because I have gone through a lot of scenarios in farming, I started here from scratch, and I started two farms other farms from scratch or actually three!

C.C.: Yeah.

J.R.: Weslaco and then Canton and then here. So, I have some experience and I know what to do and what not to do. I try to help the people so they don't make the same mistakes and can be more efficient from the beginning.

C.C.: mhmm.

J.R.: So yeah, it's a good job, I like it.

C.C.: That's super awesome. Uh so, what are some goals that you have for yourself and your family?

J.R.: A goal I've had for a while is just to be more organized. I always try to be more organized but it's hard sometimes. With the fast-paced life.

C.C.: Hmm yeah, I know that!

J.R.: Things like that. But the goal is just to, you know, main goal is...try to be happy, and be healthy.

C.C.: mhmm.

J.R.: Every, every once in a while, we remind our kids about those things, cause, I, keep telling my kids, "You know what? School, it's important." Yes.

C.C.: mhmm.

J.R.: "But your attitude is what, is gonna..."

C.C.: Oh yeah!

J.R.: “Make you successful or not.” You can finish a degree, but if your attitude isn’t good, they’re gonna keep firing you from the jobs.

C.C.: mhmm.

J.R.: So, I'm trying to. I have that goal that they can develop with confidence and good organizational skills. I think that will help them, forever in their life.

C.C.: Yeah, for sure. Um...so...What has been the hardest thing you've had to overcome in your life?

J.R.: Experiencing high levels of Anxiety due to debts, uncertainty and change, when we moved here from Weslaco, it was a huge change and I felt very vulnerable so after a few months I started getting some symptoms that even driving a mile away seemed like a huge challenge, It was a very rough time in my life, but with the support of my God, family, friends and faith I was able to get better. I still often remember how I was before and often I think how grateful I am when I am driving around again. There were times when I thought there was no solution for those feelings, but you have to carry on and do what you got to do to get better,

C.C.: Wow.

J.R.: So grateful. I’m here you know?

C.C.: That’s good. Um, last question. What is your proudest accomplishment?

J.R.: Uh...say that again?

C.C.: What is your proudest accomplishment?

J.R.: OK. Uh, my kids. And my, my family are my greatest accomplishment.

C.C.: mhmm.

J.R.: What I always try to remember is that my biggest project is my kids. You know? And so, when I see them doing a...a small accomplishment, for me. It's a great accomplishment. I always push them to do better and I'm a little hard sometimes, but if I think about it they're very good kids. All of them. They’re very good kids and, uh, they’re trying which is what matters.

C.C.: That’s awesome. Alright well, Juan, thank you so much for your time, really appreciate it. It's been really great talking to you!

J.R.: Same. I really enjoy it, thank you man. Yeah, nice to meet you!

Appendix C

Interviewee: Shakera Raygoza

Interviewers: Cristina Garza, Alexis Arizpe

Interview date: October 28, 2022

Interviewee location: Edinburg, Texas

Interviewers Location: Edinburg, Texas

This interview was conducted over the phone on the 28th of October of the year 2022. The Interview lasted approximately 43 minutes. The interviewee was Mrs. Raygoza. She is a family member of the Raygoza family. Mrs. Raygoza was a graduate nurse when she met her husband. Since then, she's been an on-again-off-again farmer with her husband and her family. Based on her accounts she was able to provide us with information about her history, family, and farm.

Cristina Garza: Ok...Um good afternoon Shakera, my name is Cristina Garza I am with The University Texas Rio Grande...um and we are going to be conducting an interview with Shakera Raygoza. We are...today is Friday, October 28th uh 2022 um and we are currently in Edinburg, we're actually in her farm. So let's go ahead and begin, oh uh actually we have another interviewer.

Alexis Arizpe: Alexis Arizpe also here for this interview.

C.G: And we're all here in person. Um once again thank you so much Shakera, let's go ahead and begin.

C.G: Shakera, can you please state your name and where you live.

Shakera Raygoza: Shakera Raygoza, Edinburg, Texas.

C.G: Thank you um would you mind please talking about your life growing up, where you are originally from, and where you have lived.

S.R: I am from, well I was born in Pensacola, Florida which is in the panhandle and I spent most of my early childhood there and later my mom married my stepdad when I was in 1st grade, and he was in the military and we ended up traveling quite a bit for his assignments, so I've lived in New York, um Mississippi, uh Washington State, and Italy... Well actually Sicily, and South Korea Pusan South Korea.

C.G: Wow... Thank you so much.

A.A: Yea...How did you and Juan meet?

S.R: Erm... we met through an online dating site for our church, for Christians, and actually I was on there just for fun not really thinking I would find a relationship but ended up meeting Juan around November in 2003, and we met in person the next year in February, and the rest is history.

C.G: Nice

A.A: Yea

C.G: Um, you mentioned during the class when your family came to the class that your grandmother had a garden while growing up did that influence you considering you are now an organic farmer now.

S.R: Yes well, I always liked being outside, so she gave the introduction to gardening and eating fresh vegetables, and when I met Juan he initially wasn't farming. He was working for a commercial business, but then he expressed a desire to grow for us and the kids and I started getting more involved, but at the time like I was a nurse. Um, it was kind of interesting how I just transitioned to farming. I'm pretty sure those times with my grandma helped ya know...influenced me and gave me a love for the outdoors, being outside, and nature.

A.A: How did you and Juan come up with the name Terra Preta Farm?

S.R: Terra Preta is Portuguese for black earth, like dark earth, rich earth and that's one of the goals we have for the soil. We want to make sure that it's healthy and if it...the soil is healthy, the nutrients and organisms everything working together, then the crops do well so that's what our goal was, to have healthy soil so we can produce healthy nutritious food for ourselves, for our kids, and for our community.

C.G: Perfect, thank you, Um, what is your role on the farm?

S.R: Right now, I play a lot of different roles. I manage a lot of the logistics, like working with buyers, updating our inventory, and taking orders. I also manage the packing shed where we're processing, making sure everything is according to food safety guidelines and we're meeting the quality standards. I also manage all the organic certification paperwork and the inspections when they come and all of the farm recordkeeping, and all of the accounting work for the farm, and as well we have a smaller plot garden area that I manage the production for, and also the greenhouse production for the transplants, the little seedlings that we use, before we place them on the ground we start those in the greenhouse.

A.A: That's honestly interesting... What's the most satisfying part about farming for you?

S.R: I enjoy eating the fruits of my labor. I enjoy harvesting it and eating it fresh and finding ways to use it, eat it, and share it with my family. I also like being outside and working with my hands and also farming led us to being active in the community. I enjoy getting to know people through the farmers market to come and really visit the farm.

A.A: Yea I think my favorite would probably be getting the food too.

C.G: Yea! I think it would be really nice to see like the baby food and how it just grows, when it's good and when to cut it. Speaking about the farmers' market. How did you all get involved in the farmer's market? How did that start up? Who's idea was it?

S.R: It was Juan's idea. We had like a small garden plot, but we were producing more than we could eat ourselves, and so we started going to a little farmers market, and eventually as we grew, we were going to like three a week. But now we had to scale back and transition to a more wholesale model, so we haven't been going for the last few years, but we have great memories of the farmers market, the kids especially.

A.A: Describe the relationship you and your family have with the other vendors at the farmers' markets. Have there ever been points where you help each other out, give advice and such?

S.R: Yes, um we're still in touch with the other farmers even if we're not going ourselves because I feel like there's a lot of community here in the valley. So, we would, for example, Juan and I, we would usually go together, and we would take turns so we would be at the table and we would go around and we would walk the kids around and visit with the other vendors. We kind of developed a friendship with most of the vendors which is nice because there's not that competitive aspect between the farmers. We share what's going on in our farm, what we're learning, and resources, and work together.

A.A: I'm glad to hear it's not competitive.

C.G: Yea that sounds really nice, also it was the start-up to a nice community. Um, how did you decide what to grow on the farm?

S.R: Mostly, we decide what to grow based on the markets that are open and what's in demand. So, for most of the time for many years, we've done the CSA model where we grow like thirty or forty different things and now when we went to a wholesale, we would have loved to produce a lot of the easier crops that we think are easy crops. But the buyers wanted radishes and we don't really eat a lot of radishes ourselves. They're ok! We're not really big radish eaters but that's what we ended up growing because that's what our buyers wanted. It also is based on our climate of course and has affected what we grow because we have to struggle with rabbits, struggle with leafcutter ants like leaf harvester ants, and we found that some crops they don't like, so we try to grow the ones that are not susceptible to those pests.

C.G: (To Alexis) Um could I ask one more thing?

A.A: Yea

C.G: You mentioned that there were a couple of or more, what was the word you mentioned about the crops, easier to grow? What types of crops were those for you all?

S.R: Yea so we do really well with kale or beets or carrots. They don't require a lot of management.

C.G: Yes, thank you!

A.A: What time does your day start and end?

S.R: Well usually it's around six-thirty, and I get up at that time not for farm duties but to get the kids out to school, and usually typically I'm working out in the farm or getting things done until seven thirty, but easily could stretch out longer because in the summer there's more sunlight and I usually like to get one extra thing done.

C.G: Nice, um what are the mornings like for you and your family? You mentioned during the week you have to get the kids out to school. What about the weekends? What are those like?

S.R: Yea so typically in the morning, I wake them up, prepare them their breakfast and lunch at the same time, so mornings can be pretty hectic if I don't plan ahead. Sometimes I do prepare like two meals in the morning and within that one-hour timeframe and to get them off to school we leave the house at seven thirty and we do a little route. I have one in elementary [school]. I have one child in middle and one child in high school and they all enter at different times. Andres goes in at um eight, we usually drop him off at seven forty-five, then we drive to south middle school, and we leave Kanani there because her classes start at eight fifteen. Then Shakera is last because her classes start at nine at Robert Vela so we kind of have a kind of break in there. So usually when I get back it's already nine and I begin the farm work of the day. I go out to the chicken tractor to check on the chickens, give them food and water, and I walk the garden and see how the plants are doing, I look for what's ready to harvest or if there's any issues needing to be taken care of, give instructions to the guys helping out. Then I come inside and eat breakfast because I haven't eaten by myself and do some work on my other two part time jobs that I have so the mornings are pretty hectic. I work until three off the farm and by then it's time to pick everyone up from school.

C.G: Full circle.

S.R: Yea!

C.G: Thank you.

S.R: Was there another part of the question that I didn't answer?

C.G: No, you got it.

A.A: Do you and your kids ever drive the tractor?

S.R: Uh very few occasions. I've driven all three. We have one that's a smaller tractor used for making the beds, but also for shredding the weeds and cultivating, and then we have the one for taking out the weeds, and then we have a third one that's mostly for when we use it as a forklift to load and unload products. I've driven that one for mowing. I had very little experience driving with a stick shift. Juan had to teach me a few years ago. I'm not too comfortable on the tractor but I have come to figure it out. When he's really really behind he will ask me and mostly what I do on the tractor is mowing because it's the easiest for me. Sometimes I've taken out the drip tape and removed it. I would say I've driven the tractors like ten times. The kids have only driven it about a hundred feet for photos and videos, for work they don't do it.

C.G: Nice. I'm glad they're embracing it.

A.A: I wouldn't trust like what...a nine-year-old... with a tractor?

S.R: Yea that's Andres, he just drives it straight ahead on the road but not in the field or anything. He sits on Juan's lap, and he is there guiding him.

C.G: What are the chores that your children do on the farm? How difficult are their tasks? Are you giving them more responsibility on the farm as they get older?

S.R: They usually will help with the chickens mostly. I can see and trust that they can do that on their own, but nobody's set to do that every day so they go and they open them in the morning, give food and water, collect the eggs and at night we put them away. We used to have goats and sheep so those were mostly the responsibility of Shakera so she would make sure they had hay or feed or we had to take them out to graze so she was in charge of mostly doing that. We would usually get all the kids involved on the weekend for an hour or two on Saturdays to help. They do anything from weeding or transplanting like putting the seedlings in the ground, or making the potting mix that we use for the seedlings. They usually do that every year traditionally because it's a lot of fun to get dirty mixing all the soil mix.

A.A: Do the children have time to help on the farm after they have completed their homework and activities after school? Is their time to help on the farm limited to the weekends?

S.R: Yes, mostly it's the weekends because they give us so much homework nowadays so they have school work and they're in other activities like sports so they have to stay after sometimes for sports or for piano lessons or clubs, so most of the time they usually get out to help just on Saturdays.

C.G: Nice... Um how do you handle having them help on the farms or being with friends as their parents? Do you let them off when they have plans? Do they need to go to their house and or farm chores first? Or is there a special agreement you, as a family, have made?

S.R: It's not too structured, so some mornings we have them come out to help. Sometimes if they have a lot of homework and they'll say, "Well we have a lot of homework" we'll give them time to work on that. But there are times when they don't have homework, but they do want to go out with their friends in the afternoon and want us to give them a ride. We tell them you help us out with this farmwork, and we'll be freed up and we'll have time to take you.

C.G: So, a little bit of a give and take?

S.R: Yea!

A.A: Do you have any recipes you can share with us that utilize the foods you grow on the farm?

S.R: Yea, it just depends on the season for what we're harvesting. Right now, we're using a lot of zucchini, so I made a vegetable lasagna. So, we put in like eggplant and zucchini from the farm and add that into a lasagna, a vegetable lasagna, we eat steamed okra with tomatoes and onions and sauteed green beans um... and that's what we've been having lately, what we've started to harvest. But we've also used a lot of the produce that likes cooler weather. In the winter we eat a lot of root in the oven. So, basically, we just put olive oil and Italian seasoning on all of them, like carrots, radishes, beets, um the leeks, and throw everything in the oven. It's quick and easy.

A.A: That honestly sounds delicious. Have you ever thought about making a cookbook? People around here will probably like it. I know my mom would.

S.R: No, that's a good idea actually. Yea that would be nice. My kids always say, "We should open a restaurant because the food is so good".

A.A: You can get profit from your book and from the products the books gonna help you sell.

C.G: I was going to ask, are you all on a vegetarian diet or do you guys eat meat, chicken, anything like that?

A.A: Yea I've noticed none of that had meat.

S.R: Yes yea, we have just six months incorporating meat back into our diet. We've been vegetarian since my son was one, he's 9, so eight years, and we stopped eating meat mostly for health reasons to improve our health and also for the environment. But lately we've been incorporating meat back into our diet. We're eating some chicken, beef, seafood, so it's been a transition.

A.A: I can imagine

C.G: Yes, and I understand the sustainable part of being able to eat less meat and that's cool I like that. I was gonna say my partner was telling me of how there is like grassfed animals and stuff and like those are being promoted as more sustainable than the regular ones so we can feel a little better about when we eat it.

S.R: Yes, we always try to get a healthier choice because we're aware of how it's all produced in factories and the health of the animals isn't their first priority. So, we try to get grass fed beef, organic chicken, or humanely raised. If they have a certification, we try to support those.

C.G: What holidays do you all celebrate as a family, and what is on the menu during these celebrations?

S.R: So, since we have two cultures here, we have American culture and Mexican culture. We try to celebrate all of them. So of course we have the main ones like Christmas, Easter, and Thanksgiving and all of the other holidays in between like the fourth of July but we also do *Dia de Independencia* and the kids love to celebrate...what is it, three kings day? And

food, well yea, there's always food. Um traditionally for Thanksgiving we usually try to eat like a typical meal from my side of the family so we have soul foods like mac and cheese, and green beans, and we would have sweet potato pie, and we would have a homemade cornbread dressing, collard greens, sometimes we'll bake a cake. We have basically all the sides except for meat. The kids are like "Now that we're eating meat do you think we'll get a turkey this year?" and I'm like "Maybe!". But if we're in Mexico for Christmas, there is a whole different tradition there. They prepare a Codfish stew called Bacalao. It's served with French bread, and we also have tamales and pasta and then they have a fruitcake that his grandmother makes that's really good, and Christmas cookies, so it's kind of a mix of both traditions.

A.A: I'm surprised you didn't say Halloween though that's in a couple of days after all. They're not gonna dress up?

S.R: We don't celebrate that much. Like when they were little, they would get more into it and we'd take them to church for a trunk or treat but we don't want to get them in the crowds and all.

A.A: Yea especially now with covid and everything.

A.A: Outside of holidays, how often do you all take breaks from farm activities and focus on quality family time?

S.R: When we are in our busy season which runs from September to May, we usually only take one break during Christmas time. We will take the week off and visit family in Florida or Mexico and then we don't usually take a longer break until summer because that's when we don't grow because it's too hot. Usually in the summer we take a two-week break, not necessarily going on a vacation far away, kind of like a "staycation" or to San Antonio or go visit family in Mexico or Florida.

C.G: Were you and Juan farming already when you became pregnant with your first child? Where was she born? How did it feel knowing you were going to start a family?

S.R: No, we weren't farming at the time. We were excited to have our first daughter. We were in Provo, Utah, that's where she was born. Juan was just barely getting into the idea of starting his own farm because he was working with commercial growers at that. They used a lot of chemicals in the greenhouse. After she was born, we bought a tractor and started looking for land. We decided to move to Texas when she turned 1. We realized it would be very hard for our families to visit us and the new baby because they were in Saltillo and Florida. So, she was a big motivation for us to leave and come here to Texas because it's a whole lot closer. And she was a motivation for us to farm because we wanted to give her good food and everything.

C.G: Thank you.

A.A: What are some of your favorite memories about farming together with your family? Do any memorable stories stand out?

S.R: Hmmm It's nice to be working together and see some of the tasks we get done. I mentioned they always help us when we start the season, so they're always involved in planting the seeds and getting the potting mix ready. So, we have a lot of memories of those times. Lately it's been them helping us on Saturdays. We have good memories watching the kids working with the animals. Taking care of the sheep and goats everyday really helped us come together too. Most of the time, it would take all of us to get animals out of their corral and into the field to graze. All of us had to round them up, three sheep and two goats. It was fun to see their reactions to raising the animals, especially when the baby animals were born here. There are also good memories of the times we went to the farmers' market. The kids have good memories of going. At first, we were thinking [that] they didn't like going to markets, but when we stopped going, they would keep asking when we would go. So, it was fun for them after all and that's the memories they have of it. We would get up every Saturday at Seven Thirty and we would have to travel to another farm we had at Canton Rd. So, we went from Weslaco to Canton, to pick up the vegetables from the farm and the tables and everything, and then drive to the McAllen Market, usually we'd be running late, so it would be a family effort. We would be like "Come on!" and we'd be unloading and setting up the table. After they set up they'd have their free time so they'd go shop, go to the library, they could buy their sweets, they wanted ice cream, cake and pies, and all those things at the market.

C.G: Thank you Shakera, Um, you've kind of already mentioned you would all often... well not often but you'd all visit family in Mexico or Florida. Do they ever come to Texas to visit you all? What do you and the kids do when their grandparents are visiting? And do you practice any cultural traditions at home with your children?

S.R: Yea, so my in-laws would come about every two or three months, very frequently, and it would be a welcome visit. They would come during the time when we were farming and they'd be a big help. It would be a great help for us and the kids because they would get to go out. My in-laws were like our little angels. They would come and they would take over everything like all the cleaning, all the cooking, and the kids would go with them to after school activities. On the weekend they would always get to go to the mall in McAllen, so they'd look forward to that. They knew that whenever their grandparents came, they would get to eat ice cream and Auntie Annie's pretzels. It was like a tradition: mall, cookies, pretzels, ice cream, and then they would get to eat at a restaurant. The same ones like Cracker Barrel or Luby's, the same ones like tradition. But my mother-in-law when she was home she would always bring us some good homemade tortillas, whole wheat tortillas, her red enchiladas, and vegetable soups. Now that the pandemic has happened it's made it harder for them to travel, so we don't get to see them as much. They were here in June and so. But that's some of the things they do with us and the kids. The foods you'd see are typical. She'd always bring red enchiladas, she'd prepare it, if we're lucky she'll bring us oatmeal cookies or she'll bring cake. We call it Mey's Cake because it's her special recipe, a vanilla cake with raisins and nuts topped with limon buttercream frosting.

A.A: Since your husband is from Mexico and Spanish is his first language, have you learned to speak Spanish? How about the kids? Can they understand/speak/write in Spanish?

S.R: Yes, I've learned to speak Spanish. The kids too. When they were smaller, we tried to talk to them only in Spanish at home. Once they get into school it's a little bit harder. For

example, now we're trying to push them to speak in Spanish. It takes a lot of diligence, and I haven't been so consistent on that. So, we speak mostly English at home, but they do understand Spanish. They speak Spanish pretty well. But they haven't learned how to write. Most of the time we speak to them in Spanish they'll reply in English. But when my in-laws come, they speak to them in Spanish.

C.G: What is currently in season at the Raygoza Farm? I know you mentioned zucchini. Is there anything else?

S.R: Yes, so right now we have cucumbers, green beans, cilantro, kale, and we have okra. I said cucumbers. Hmmm.... I think that's it for right now. But we have a lot coming up in the gardens.

A.A: Can you tell us what natural pesticides are used to care for plants and how they work?

S.R: So, we use a lot of different essential oils. We use Neem Oil which is good for fungus, and also for beetles bugs. We also use soap along with oils. You can also use basic dish soap, but we purchase a professional product for organic growers. For the worms we use biological controls like BT. It's found naturally in the soil, but they cultivate them, and we apply it to the plants. The worms digest it, and they die, but it's not harmful to us. We also use other methods, like a row cover that we use like cloth. It prevents bugs from getting in, like a little blanket for the plants. So, it's nice that all the things we apply don't hurt us or the kids so we can go in and not be afraid afterwards.

C.G: Tell us more about your background as a nurse; where did you work, and how did you transition from nursing to farming? How difficult has this been for you?

S.R: So, when I graduated in 2004, I got my bachelor's in nursing and my first position was on an orthopedics and neurology floor at Utah Valley Regional Medical Center in Provo, Utah. I actually worked there for three years and then we moved to the valley. I was originally going to start working because I thought I would find work first as a nurse, but Juan was blessed to find a job within two weeks, so I was staying at home with little Shakera. I was able to stay home with little Shakera while he was studying for his master's at University of Texas Kingsville. It was while he was studying that we planted a family garden in front of our student apartment at the Citrus Center in Weslaco. I took care of the garden with him and began my "training" After he earned his master's and we started to farm on a bigger area with a friend and I got to be more involved in the planting and harvesting. At that time, we decided he would have to spend more time building up the business and I would go work. So, I started working at Rio Grande Regional Hospital in McAllen. So, I worked there for about a year on their medical surgical floor, and that gave us some time to go build up the farm. When he found a position at the University of Texas Pan-American, now UTRGV, I switched back to staying at home. So, I've been kinda back and forth in the nursing field. Little by little, Juan was teaching me along the way. Eventually, over the years I've been able to get a grasp of farming and know how to manage smaller scale farming on my own.

A.A: Given that you were a nurse, why did you and Juan decide on doing an at-home birth with a midwife instead of a hospital?

S.R: So, I always wanted to have a natural birth. I didn't want to take any anesthesia. In the hospital setting I didn't really feel supported or comfortable to have that happen. I had several friends who already had a good birthing experience with Holy Family Birthing Center in Weslaco and so I reached out to them, and I just felt this was a good time that I could handle it and I liked the way it was structured. At the same time, we were blessed to have Heather Sevcik reach out to us about working on the farm part time while completing her midwifery studies at Holy Family. I felt really comfortable working with Heather at the farm and felt good knowing she was working at Holy Family and would be there to support me through the birth. So that's pretty much how I decided I wanted to do it with them instead of in the hospital. So I gave birth at the Holy Family Birthing Center in one of their cottages. And it was a beautiful water birth, so Andres was born swimming.

C.G: This is the little one right?

S.R: Yea Andres!

A.A: All of them were natural births?

S.R: Yea well as they say with natural births. I didn't get a C-section, but I did get an epidural with the two girls, and with Andres it was fully natural.

C.G: Which one do you prefer since you've experienced hospital setting and natural birth?

S.R: Definitely the natural birth! Yea.

C.G: So, this is our last question Shakera. Have your children expressed interest in wanting to continue the Raygoza farms once it's time for you and your husband to retire? If they, for some reason, find a calling in life that has nothing to do with taking over the farm, have you and your husband discussed a backup plan on what would happen to the farm and who would take over after retirement?

S.R: At this point no one's really said they want to do this. They're still learning, but the girls, one of them has said they're interested in going into animal studies and the other doesn't know. But Andres is my hope because he gets out more, but he's so young. We haven't discussed who we're going to hand the farm over to or what's going to happen. We still feel in a way that we're still starting it ourselves as we're growing. Hopefully, he'll find he might decide to go into farming, if not we'll have to find another young farmer and try to pass it on to someone.

C.G: It's a good time to start planting seeds in the children! Encourage them.

S.R: Yes!

C.G: Well, um, thank you so much for your time, Shakera that was our last question. Do you have any questions for us?

A.A: Any last-minute statements? Anything that you want to say?

S.R: No not at this time.

C.G: Well, thank you so much for your time! I had a lovely time interviewing you. You were very good at making us feel comfortable.

A.A: Yea this was a thing that I was a bit too anxious about.

S.R: Oh! Haha

C.G: Yea it might've been the sunset, the wind, again thank you so much.

S.R: Yea, thank you.

Appendix D

Interviewee: Juan Manuel Raygoza Amozurrita & Mireya Castro de Raygoza

Interviewer: Karen Villarreal & Diego Rivera

Interview date: 22 de Noviembre 2022

Interviewee Location: Saltillo Coahuila, Mexico

Interviewer Location: Edinburg Texas, USA

This interview was conducted via videocall using a computer app called “Zoom”. At the request of the interviewees the meeting was spoken in Spanish by all parties. The interview lasted approximately forty-eight minutes. The Interviewees Mr. Juan Manuel Raygoza Amozurrita and Mireya Castro de Raygoza are the parents of Juan Raygoza the owner and operator of Terra Preta organic Farms.

Diego Rivera: ¿Si no, si no les molesta, desde donde nos están hablando, qué parte?

Juan Manuel Raygoza: Desde Saltillo, Coahuila, México.

D.R: Wow! Saltillo. Perfecto, bueno, yo soy de Reynosa. Pero me gustaría conocer Saltillo algún día.

J.M.R: ¿Karen, de dónde eres tú?

Karen Villarreal: Yo soy De aquí, del Valle de Texas, pero mis papás son de un pueblo muy chico en Tamaulipas que se llama Camargo, muy cerca de la frontera también.

J.M.R: mucho gusto Karen.

K.V: Mucho gusto.

D.R: Que bueno, pues otra vez, muchas gracias por la oportunidad. ¿Si vieron las preguntas que les dimos, las dividimos en 2 partes, la primera parte es sobre la vida familiar de ustedes, y la segunda parte es sobre la vida profesional de ustedes, señor, señora Raygoza? Sí nos permite, yo puedo tomar control de la primera parte y Karen puede hacer las preguntas de la segunda parte.?

J.M.R: Correcto, voy a comenzar yo con las preguntas, y cuando lleguemos al tema de cómo empieza la agricultura en la familia mi esposa va a responder las preguntas, porque la pasión por la agricultura nace en la familia Castro, toda una tradición por generaciones. Ella les va a explicar cómo inicia la historia hasta llegar con el Dr. Mario Castro y con Juan.

D.R: Suena perfecto. Antes de que empecemos con las preguntas, quería decirle que esta entrevista es para nuestra clase. Por qué no sé si Juan les dijo que en este proyecto vamos a escribir un libro sobre su familia.

J.M.R: Sí, sí nos ha comentado.

D.R: Vamos a escribir un libro y esta entrevista va a estar en el libro y para poder tener todo oficial tenemos que pedir su permiso para grabar esta entrevista. ¿tenemos su permiso para grabar?

J.M.R: Sí, tienes nuestro permiso.

D.R: Perfecto entonces vamos a grabar todo en Zoom y una vez que terminemos la entrevista, Karen y yo vamos a transcribir todo en papel Y les mandaremos una copia.

J.M.R: Muy bien.

D.R: Se las podemos mandar por email, o por fax, como ustedes gusten, paloma mensajera.

J.M.R: Por email está bien

D.R: Y ustedes pueden checar si todo está bien, eso está mal, si nos faltó algún acento, y cuando ustedes nos den el OK de la versión que quieran ustedes, nosotros la agregamos al libro.

J.M.R: Está muy bien, muy bien Diego y Karen.

D.R: Perfecto, entonces vamos a empezar, voy a empezar con la primera pregunta. ¿Señor Raygoza, podría dar su nombre completo, su edad y la ciudad en que reside?

J.M.R: Mi nombre es Juan Manuel Raygoza Amozurrutia y actualmente tengo 74 años, radico en la ciudad de Saltillo, Coahuila, México.

D.R: Guau! Perfecto, perfecto. Muy jóvenes todavía.

J.M.R: Un poco.

D.R: Esta segunda pregunta es con todo respeto. Tiene usted un apellido muy único, ¿podría compartírnos un poquito sobre la historia de sus apellidos?

J.M.R: El apellido Raygoza es de origen portugués, nos narran por ahí que un inmigrante español se trasladó a Portugal y, como tenía ciertas características, fue adoptado en la Corte del Rey de Portugal Y cuando regresó a España adoptó el apellido Reygoza porque el apellidaba Goza y por estar cerca del rey se puso Reygoza. Ya estando en España, se casó con una persona italiana de apellido Rigasa Y de las fusiones de estos dos surgió el Raigosa, hasta llegar al Raygoza que es tal y como lo usamos ahora.

D.R: ¡Wow! nunca hubiera esperado esa explicación. ¿Entonces, por eso es que el nombre de la huerta, que se llama Terra Preta es en portugués, debido a la historia familiar?

J.M.F: Hay una coincidencia en eso, pero creo que eligió el nombre basado en que se llama terra preta a una tierra muy fértil que existe en Brazil y otras partes del mundo, es una tierra oscura, casi negra, cargada de minerales y otros nutrientes.

D.R: Guau. Qué interesante. Fíjese que los abuelitos de mi esposa son del País Vasco.

D.R: Emigraron a Idaho en los años 40, huyendo de Francisco Franco.

J.M.R: Sí, hubo mucha emigración en esos tiempos. Mi segundo apellido es Amozurrutia y ellos también fueron inmigrantes de los Pirineos y se establecieron en Zacatecas. Ese es el origen de mis apellidos.

D.R: Perfecto señor, Raygoza. Es una historia muy increíble. Karen. ¿Quieres preguntar algo?

K.R: Nada más quiero decir que es un honor saber esto. Mucha gente como yo no conocemos qué origen tienen mis apellidos. Le preguntare a mis abuelos que están vivos, a ver si ellos saben un poquito, muchas gracias por compartir.

D.R: Gracias, la tercera pregunta. ¿podría contarnos un poquito de su familia? ¿cómo creció? ¿Dónde creció usted? ¿de sus de sus papás? ¿de su de su familia en general?

J.M.R: Sí, mi familia se conforma por mis padres, Manuel Raygoza Enciso y René Amozurrutia Olvera, mi hermana menor y yo.

D.R: ¿Podría decirnos otra vez el nombre de su padre?

J.M.R: Manuel Raygoza Enciso.

J.M.R: Crecí en Torreón en Torreón, al lado de mis abuelos maternos.

D.R: ¿y nos pudiera decir los nombres de sus abuelos maternos?

J.M.R: Rafael Alberto Amozurrutia Guevara y Guadalupe Olvera Peralta

J.M.R: Ya habiendo terminado de estudiar mi preparatoria en Torreón, me casé y empecé a trabajar en la Escuela Superior de Agricultura “Antonio Narro,” estudiando simultáneamente la carrera de Licenciado en Sociología. Posteriormente realicé mi maestría en Educación y después de 30 años de servicio me jubilé como Maestro Investigador de tiempo completo de la Universidad Autónoma Agraria “Antonio Narro,” pues en este tiempo, la que fuera Escuela Superior se transformó en Universidad.

D.R: ¿podiera usted compartir la historia de cómo, usted y su esposa se conocieron?

J.M.R: Sí, en Torreón cuando yo tenía 23 años, me encontraba jugando básquetbol en la cancha de la Iglesia de Jesucristo de los Santos de los Ultimos Días, conocida como iglesia mormona, a la cual pertenezco. También era miembro una maestra norteamericana que trabajaba en el Colegio Americano de Torreón, Mari Vawn Bailey, quién invitó a una de sus alumnas a conocer la iglesia, y esa alumna es quien ahora es mi esposa. Cuando las vi llegar salí a saludarlas y a conocer a la chica nueva que estaba visitándonos, obviamente hubo mutua simpatía y allí comenzó la historia.

D.R: ¡Guau! me encanta esa historia. ¿Fue amor a primera vista?

J.M.R: Sí, hubo mucha química inmediatamente, empezamos a tratarnos y nos casamos en 1972. Tuvimos que ir a casarnos por la Iglesia. A Mesa Arizona. Porque no había.

D.R: OK, perfecto, ahora nos gustaría hablar un poquito de Juan, ¿nos puede contar como era Juan de joven? ¿Dónde nació el? ¿Como era de niño? ¿era travieso? ¿Curioso?

J.M.R: Juan, Juan Manuel Raygoza Castro, nació en Torreón, Coahuila, México, el 2 de febrero de 1978. Fue un niño muy querido, curioso y observador de la naturaleza. Le gustaba mucho poner insectos vivos en frascos para observarlos: tarántulas y un insecto que aquí llamamos “cien-pies”, abejorros y otros insectos peligrosos. En la pequeña huerta de la casa y en el jardín tuvo oportunidad de ver gallinas, recolectar huevos frescos, vernos sembrar espinacas y le gustaba comerlas directas del surco, “porque así comía el conejo”. Disfrutaba que lo lleváramos a la Universidad Agraria y ver los animales en los establos, las conejeras y los cerditos recién nacidos. Se graduó de primaria y secundaria con excelentes calificaciones.

En su juventud fue muy sociable, inteligente y alegre, en la casa siempre tenía amigos y su inseparable primo Mario, tocaba la guitarra, cantaba y componía canciones para su grupo musical “Guizmo”, en el cuál cantaba y tocaba el bajo. Fue un joven sociable, hacía buenos amigos y disfrutaba ir a fiestas y a bailes. También fue muy deportista, jugaba basquetbol en el equipo de la preparatoria y hacía mucha bicicleta de freestyle. Se graduó de la Universidad con honores.

D.R: ¿Ustedes o La familia creció en una granja? ¿o creció en la ciudad?

J.M.R: Creció en la ciudad, pero en un ambiente agrícola por nuestro trabajo en la Universidad Agraria, y muy vinculado a agricultura y animales de granja en casa, ya que siempre procuramos tener espacios amplios que nos permitieran tener frutales, gallinas, y un pequeño huerto para consumo familiar.

J.M.R: Además de la herencia genética que tiene de agricultores en varias generaciones atrás, creo que para su vocación en agricultura orgánica influyó también el estilo de vida autosuficiente que procuramos ofrecerle a nuestros hijos. Desde pequeño salía a recoger los huevos del pequeño gallinero, les daba de comer a las gallinas, ayudaba a pizcar duraznos, ciruelos, higos y otras tareas sencillas. Observó a su mamá hacer granola, envasar mermeladas o tomate, etc.

D.R: ¡Wow! Eso está perfecto. Lo voy a copiar. Ese estilo de vida después de que pasamos por la pandemia, creo que va a ser muy útil en el futuro. Creo que la siguiente pregunta sería para su esposa, sobre la historia de la agricultura en la familia.

J.M.R: Ella, tiene una información bastante interesante. Hay una tradición muy fuerte de agricultura en su familia.

D.R: Mucho gusto, señora, mire mi nombre, es Diego, y el nombre de mi compañera es Karen.

M.C: Hola mucho gusto, yo soy Mireya Castro Gil.

D.R: Como le decíamos al señor Raygoza, queremos obtener información para nuestro libro y entrevistar a los papás de Juan. ¿Nos podría compartir cómo empezó la agricultura en su familia?

M.C: La historia de la agricultura en mi familia viene de varias generaciones atrás, pero abreviaré narrando desde mi abuelo paterno el Profr. José Reyes Castro Ramírez. El era maestro activo y fue revolucionario con rango de Capitán Primero de Caballería. Tuvo a su cargo a muchos revolucionarios que no tenían educación ni empleos fijos, como él, y al terminar la lucha quiso ayudarlos tramitando ante el Gobierno Federal Mexicano, que donara predios agrícolas para cada ex-revolucionario de su legión. Después de varios años de trámites logró que se creara la Colonia Agrícola Venustiano Carranza, dentro del ejido de Derramadero, Coahuila. Se dieron lotes desde 8 hasta 15 hectáreas de tierra fértil. No todos se dedicaron a trabajar la tierra, algunos la vendieron o la abandonaron. Mi abuelo siempre sembró su parcela, cosechando maíz, frijol, trigo en invierno y otros cultivos que sirvieron para ayudarlo a la manutención de su familia de 8 hijos, que recuerdan siempre haber tenido alimentos nutritivos y deliciosos en la mesa....tortillas y panes de trigo, mermeladas caseras, tortillas de maíz, más lo que mi abuelo compraba en Saltillo. Aprovechando que algunos ex revolucionarios emigraron y vendieron sus parcelas, mi abuelo compró tres lotes más y el rancho creció.

Seguramente impulsado por el entusiasmo de mi abuelo por la agricultura y su cariño por la tierra, motivó a dos de sus hijos a entrar a estudiar para ingenieros agrónomos en la entonces Escuela Superior de Agricultura Antonio Narro, mi papá fue el primero en graduarse en 1934. Como profesionista mi papá mezcló las dos pasiones de su padre, maestro e ingeniero agrónomo. Trabajó sus primeros 12 años profesionales como maestro y Director de las entonces Escuelas Prácticas Rurales en diferentes partes del sur de México, en donde se enseñaba a hijos de campesinos a producir la agricultura con técnicas agrícolas, y hacer que hubiera más producción de diferentes cultivos. En esa época México fue autosuficiente alimentariamente.

Posteriormente, uno de mis tíos que llegó a ser Secretario de Agricultura y Ganadería en el Estado de Coahuila, hizo un pozo de agua con bomba eléctrica en ese rancho. De los ocho hijos de mi abuelo, sólo los hijos de mi papá siguieron con la agricultura. Posteriormente mi familia compró su parte a los primos y ese rancho de mi abuelo quedó en mi familia, siendo lo que fue mi parte propiedad de Juan. Es el rancho San Felipe, en el que Juan se hizo agricultor al mismo tiempo que terminó su carrera como Ingeniero Agrónomo en Horticultura. Allí empezó a sembrar orgánicamente pimientos morrones, tomate y otros vegetales, vendiéndolos en restaurantes italianos, en el mercado de abastos de Saltillo y en el comedor de la Universidad Agraria “Antonio Narro”.

D.R: Perfecto, ¿Podría compartir los nombres de sus abuelitos, de los que lucharon en la Revolución?

M.C: Es el profesor José Reyes Castro Ramírez. Reyes es nombre, José Reyes Castro Ramírez.

D.R: ¿Y sus y sus papás, señora, este nos podría decir los nombres?

M.C: Los nombres de mis papás son el ingeniero Efraín Castro Estrada y la maestra Estela Angélica Gil Lara.

D.R: ¿con quién Juan tiene más parecido físico?

M.C: Con mi papá, muy parecido físicamente y nos sorprende también que Juan repite muchas cosas que mi papá practicaba, por ejemplo, le gusta cuidar el suelo, enriquecerlo luego de una cosecha, dejar descansar la tierra en algún tiempo, y experimentar nuevas técnicas de cultivo.

D.R: Estela Gil Lara, ¿maestra de niños o de universidad?

M.C: Maestra de primaria, fue fundadora del Colegio Panamericano de Torreón, institución que llegó a tener 700 alumnos.

D.R: Usted que decía de los abuelitos que estaban en la Revolución, ¿Era la Revolución mexicana? ¿bajo el comando de Venustiano Carranza o de Pancho Villa?

M.C: Con el grupo de los liberales, con Venustiano Carranza.

D.R: Venustiano Carranza. Ándele, fíjese, muy interesante, me encanta la historia de la Revolución mexicana y nunca he encontrado a ningún descendiente directo. Lo único que se de mi familia ese que mi bisabuelo se robó a mi bisabuela en la revolución y así fue como se casaron.

M.C: Hay muchos casos así. Era de lo más común en ese tiempo.

D.R. Una pregunta. ¿Perdón, una pregunta disculpe, cómo se llama el rancho de la familia que usted mencionó que era de su abuelo?

M.C: San Felipe, ese es el nombre que tenía desde tiempo atrás, y así es ya conocido. Está dividido en tres partes, la primera es de mi hermano, que también es agrónomo. Luego está la de mi hermana Pau, y junto al pozo está la nuestra. Para identificarnos le decimos San Felipe de arriba, San Felipe del Medio y San Felipe de Abajo. Hemos querido, hemos querido cambiarle el nombre, saben, no nos vincula mucho el San Felipe, pero toda la gente de los diferentes ranchos que hay cerca, San Blas y otros lo conocen así, entonces ya nos identifican como los de San Felipe. Como le comenté ya pusimos nuestra parte a nombre de Juan, veremos qué pasa en el futuro, pues él ya tiene su propia tierra en Edinburg, y creo que le gusta mucho y es feliz allí. Además vemos que el gobierno de los Estados Unidos brinda mucho apoyo a los agricultores, cosa que aquí no es así.

D.R: Oh, guau, entonces si son tres secciones, disculpe por ser tan chismoso, pero ¿qué tan grande es el rancho?

M.C: Sí, está grande tiene como 36 hectáreas.

D.R: ¡Okey wow!

M.C: Y la Tierra, mayormente, las tres partes tienen Nogales.

D.R: ¿Nogales? A porque es, esa la pregunta que seguía, ¿qué agricultura hacían en la en el rancho?

M.C: Ya todos tenemos áreas de Nogales, de Castilla y Western, pero también tenemos tierra de cultivo en cada lote. Hemos sembrado frijol, maíz y avena. Afortunadamente nuestra parte tiene riego del pozo, para cuando hay sequía.

D.R: ¿Y él y su primo Mario?

M.C: Han sido primos muy unidos, hasta hoy. Allí empezaron desde estudiantes a sembrar juntos el pimiento morrón, tomate. Construyeron con su dinero dos invernaderos y empezaron a vender verdura orgánica, lo cuál era muy novedosa en esa época, hace 20 años de eso o un poco más. Han sido primos muy trabajadores, se llaman por teléfono muy seguido y fomentan la relación entre sus hijos también.

D.R: ¿Más hermanos que primos?

M.C: Sí, exacto. Hasta la fecha.

D.R: Pues muchas gracias, no se me vaya todavía tenemos varias preguntas, pero esta sección se va a encargar mi compañera Karen.

M.C: Ah, muy bien, Karen, sí, muchas gracias.

D.R: Muy bien.

K.V: buenas tardes, yo soy Karen Villarreal. Mucho gusto en conocerlos y un placer dar esta entrevista con ustedes. ¿Ya estamos en la 9 correcto? Bueno, la siguiente pregunta seria para el señor Raygoza. ¿Nos podría compartir con nosotros sus logros académicos?

J.M.C: Cuando yo me casé no tenía una carrera, fue al establecernos en Saltillo cuando entré a la Universidad y obtuve mi título profesional como Licenciado en Sociología. Obtuve un reconocimiento por mi promedio. Luego ya trabajando como maestro de la Universidad Autónoma Agraria “Antonio Narro” obtuve una beca con el Consejo Nacional de Ciencia y Tecnología para estudiar una maestría. Terminé mi maestría en Educación con muy buenas calificaciones y mención honorífica por la tesis que desarrollé. Otra distinción importante es que llegué a ser Director Académico de la UAAAN, puesto que sólo habían logrado ejercer los egresados de esa institución. Me certifiqué como Maestro en Competencias Docentes nivel medio y Superior. La última certificación la obtuve hace poco por parte de la Secretaría de Educación Pública, en el área de Competencias Laborales. Me jubilé de la UAAAN después de 30 años de servicio con el nivel de Maestro Investigador nivel Maestría.

K.V: Felicidades por sus logros. Nos enteramos de que usted era miembro de la facultad del Centro de Educación y Capacitación Forestal número 3 nos podía contar más sobre esta institución?

J.M.R: Sí, Karen cuando yo me jubilé de la Universidad, me invitaron a trabajar en este Centro de Capacitación Forestal, como maestro de una materia, pues alguien me había recomendado, fui a entrevistarme y me contrataron por un semestre, pero terminé trabajando allí durante 12 años, y dando 4 materias. Al igual que en la UAAAN, a este centro llegan alumnos de todas partes de la República y también tienen un internado que les da hospedaje y comida. Algo que me llena de satisfacción de haber trabajado en esta Institución es que durante 10 años, en las ceremonias de graduación fui nombrado el mejor profesor de la escuela.

K.V: Guau. Felicidades de nuevo, muchas felicidades!, pero aún podría hablarnos del Dr. Mario Castro Gil.

J.M.R: Sí, fue hermano de mi esposa. Su formación desde niño fue en el campo porque mi suegro era Maestro y Director en diferentes escuelas del sistema de Escuelas Prácticas de Agricultura que existió entre los años 1940 y 1950. Así que el Dr. Mario Castro Gil nació y creció en un ambiente educativo y agrícola, viendo a su papá sembrar con técnicas originales de su creación y curando a los animales también con métodos de emergencia que él mismo implementaba. Así que no es de extrañar que el niño Mario, siendo tan inteligente y creciendo en ese ambiente de agricultura y ciencia, a los 10 años llegó a ser Jefe de Tractoristas por ser el más cumplido del departamento en una de las escuelas en donde mi suegro trabajaba. El estudió en la Escuela Superior de Agricultura Antonio Narro, recibiendo el título de Ingeniero Agrónomo. Estudió su maestría, becado por sus calificaciones, en el Colegio de Postgraduados de Chapingo en el Estado de México. Posteriormente, becado por la fundación Rockefeller fue seleccionado para estudiar su nivel Doctorado en la Universidad de Nebraska, especializándose en maíz. Lo más importante de sus investigaciones es que fue creador del Maíz Super Enano, que llegó a dar 20 toneladas por hectárea. Este maíz revolucionó las técnicas y especies conocidas, ya que además de ser de muy baja estatura y tener un rendimiento al que se obtenía con las variedades comunes, tiene hojas erectas para poder recibir la luz del sol sin competir con otras plantas, al no ocupar tanto espacio con sus hojas erectas puede sembrarse con mucho mayor densidad de población, lo cuál también influye en el rendimiento, y su tallo es grueso para poder sostener mazorcas de un tamaño normal. Este logro fue por medio de ideotipos, generó primero la idea de la clase de planta que quería crear y luego diseñó el plan de las cruza de diferentes variedades para lograr, después de varios ciclos de siembras y cruza que logró la certificación de la semilla del maíz super enano. Primero hizo el híbrido Pancho Villa AN 360 y luego la variedad Lucio Blanco AN361 que tiene la característica de poder utilizar la semilla de la misma cosecha, sin sufrir ésta deterioro genético y sin depender de comprar su semilla a compañías establecidos. Por este logro viajó por el mundo invitado por diversos países para dar capacitación a grupos de investigadores de cada región, y logró tener reconocimiento mundial.

K.V: Sabemos que usted es un autor público, podría hablarnos sobre sus publicaciones?

J.M.R: Sí, estando en la universidad Publiqué un libro titulado Didáctica del Profesor Universitario de la UAAAN, Que sirviera como guía para que los profesores, que no teníamos formación pedagógica, pudiéramos tener una orientación fundamentada en principios de la docencia, para que diéramos bien nuestras clases, ya que todos los maestros de la UAAAN tienen una formación como Ingenieros Agrónomos, pero es necesario saber cómo se debe transmitir el conocimiento. También colaboré en el perfil ideal de los egresados de la universidad para ver cómo deberían ser preparados para que respondieran a las necesidades del campo y de su profesión. Participé en la publicación de la Reforma Académica de la Universidad. Por último, el libro El Sembrador, que es la historia del doctor Mario Castro Gil, desde niño hasta su muerte.

K.V: mi última pregunta ¿Qué le inspiró a usted escribir un libro sobre el doctor Mario Castro Gil, el sembrador ¿cuál fue la motivación que usted tuvo para hacerle este honor a él?

J.M.R: Quiero aclarar que previo estuvimos trabajando mi esposa y yo en el proyecto. Lo hicimos como una manera de honrarlo, y dar a conocer cómo pudo llegar a ser un Ingeniero Agrónomo tan destacado, para motivar a otros a seguir su ejemplo en su propia historia. Además de crear variedades muy rendidoras y productivas, quiero destacar que después de crear una variedad híbrida, o sea que los que quisieran sembrarlo tendrían que comprar su semilla de productores certificados, se esforzó y logró crear una variedad en la cual los mismos que la sembraron pueden elegir las mejores semillas que les servirán para su próxima siembra, sin necesidad de depender de productores, y así hubo más posibilidad de tener semilla para quienes menos recursos tienen. Las semillas obtenidas no pierden sus propiedades genéticas, ésta fue la variedad AN 361 (AN por Antonio Narro).

Otra cosa que nos impulsó para escribir el libro es que él logró la transformación de Escuela de Agricultura a Universidad Autónoma Agraria, con un sistema innovador de departamentos en lugar de facultades en donde todos contribuyen a formar a los estudiantes aportando cada conocimiento de acuerdo a su especialidad. Y por último, creó el Instituto Mexicano del Maíz, que está adscrito a la universidad. Visitó países como Yugoslavia, como Israel. China, Venezuela. Muchas partes del mundo dando a conocer su técnica y su investigación. Pero, sobre todo, además de todo esto, fue un gran ser humano, sencillo, y con un gran corazón.

Cuando fuimos a la graduación de maestría de Juan en Kingsville, dentro de la Universidad de Texas A & M, vimos muchos sembradíos del Valle de Texas y observamos, por ejemplo, que los cultivos de maíz y de sorgo, todos eran con plantas enanas ahora. Quiere decir que esa aportación se divulgó ya por todo el mundo y se está siguiendo ese patrón para usar menos agua y tener altos rendimientos con plantas más pequeñas. Estos son los principales motivos que nos impulsaron a escribir este libro sobre la vida y obra del Dr. Mario Castro Gil.

K.V: Este tío de Juan es hermano de su esposa de la Sra. Mireya, verdad

J.M.R: Sí, Mario Castro Gil.

K.V: Muchísimas gracias, señor. Como dice usted, pasar por cualquier esta parte del mundo y ver que ese invento tuvo un impacto en la agricultura mundial es muy importante.

J.M.R: Hay una, hay una anécdota que quisiera agregar?

Sí, en 1978 hubo una visita del Presidente de México, Lic. José López Portillo, a China. Le habló el Presidente de la República al Doctor Mario Castro y le pidió que preparara una dotación de semillas de maíz enano que pudieran sembrar en China, ya que tienen una gran población y el alimento es un regalo invaluable. Así lo hizo, y ese fue uno de los regalos que el Presidente López Portillo llevó a China.

K.V: Y para terminar, ¿qué tradiciones ustedes tienen en su familia? alguna tradición especial que nos quisieran compartir cualquiera de los dos.

M.C: Desde que nuestros dos hijos eran niños pequeños acostumbramos una reunión familiar que conocemos como Noche de Hogar. Reunirnos una vez a la semana con los dos hijos a dialogar y escuchar las necesidades de los hijos y también que ellos escucharan de parte de sus padres algo que debía ser reconocido, agradecido o corregido. Mi hija mayor es cuatro años mayor que Juan, así que a veces había algunas pequeñas quejas o sugerencias para evitar contención, así se hizo en un marco de reunión, respeto y orden. También hacíamos en esa reunión algo divertido, nos decían si necesitaban algo, zapatos o una reparación en su cuarto o cosas así. Luego uno de nosotros, tomando turnos, preparaba una merienda aunque fuera sencilla, sandwiches o cualquier cosa que pudieran preparar y hacíamos una oración. Nos la pasábamos muy bien! . Y por supuesto la celebración de cumpleaños siempre se ha hecho cantando mañanitas, preparando pastel y una reunión familiar con primos y amigos.

K.V. Y cómo se llama la hermana mayor de Juan?

M.C: Se llama Estela Angélica Raygoza Castro. Estela Angélica como mi mamá.

Appendix E

Interviewees: Juan Manuel Raygoza Amozurrita & Mireya Castro de Raygoza

Interviewer: Karen Villarreal & Diego Rivera

Interview date: November 2, 2022

Interviewee Location: Saltillo Coahuila, Mexico

Interviewer Location: Edinburg Texas, USA

This interview was conducted via videocall using a computer app called “Zoom”. At the request of the interviewees the meeting was spoken in Spanish by all parties. The interview lasted approximately forty-eight minutes. The Interviewees Mr. Juan Manuel Raygoza Amozurrita and Mireya Castro de Raygoza are the parents of Juan Raygoza the owner and operator of Terra Preta organic Farms.

Diego Rivera: If not, if it doesn't bother you, from where are you talking to us, what part?

Juan Manuel Raygoza: From Saltillo, Coahuila, México.

D.R: Wow! Saltillo. Perfect, bueno, I'm from Reynosa. But I would like to visit Saltillo one day.

J.M.R: Karen, where are you from?

Karen Villarreal: I'm good, I'm from here, from the Texas Valley, but my parents are from a very small town in Tamaulipas called Camargo, very close to the border as well.

J.M.R: Oh, OK, OK gladly.

K.V: A lot of pleasure is.

D.R: Well, again, thank you very much for the opportunity. If you saw the questions we gave you, we divided them into 2 parts, the first part is about the family life of, well you right, and the second part is about your professional life, sir, Mrs. Raygoza? Does that allow us, I can take control of the first part and Karen can ask the questions of the second part?

J.M.R: Yes, look, I'm going to drive everything, but when we get to the part where it starts. In point 7, where the family's agriculture begins to make my wife will take the time because hereally the passion for agriculture was born with the Castro family. There it all, a whole tradition since 1934. With agriculture on the part of my father-in-law and she will explain how this happens until arriving with Mario Castro and Juan.

D.R: Sounds perfect, sounds perfect. Before we start with the questions, the more I wanted to tell you that this interview is for our class. For what, I don't know, if Juan told you that in this project we are going to write a book about his family.

J.M.R: Yes, he has told us.

D.R: We are going to write a book and this interview is going to be in the book and in order to have everything official we have to ask for your permission to record this interview. Do we have your permission to record?

J.M.R: Yes, yes, this one. We have always, always supported John in everything that is of benefit to Him and the people.

D.R: How perfect then we are going to record everything on Zoom and once we finish the interview, Karen and I are going to transcribe everything on paper AND we will send you a copy.

J.M.R: Very well.

D.R: We can send them to you by email, or by fax, as you like, carrier pigeon.

J.M.R: Very well.

D.R: And you can check if everything is fine, that's wrong, if there was no accent, and when you give us the OK of the version you want, we add it to the book.

J.M.R: It's very good, very good Diego and Karen.

D.R: Perfect. So this one we're going to start, I'm going to start with the first question. Could you give your full name, your age and the city you reside?

J.M.R: Well, my name is Juan Manuel Raygoza Amozurrutia and I am currently 74 years old and he lived in the city of Saltillo, Coahuila, Mexico And my wife is 68 years old and also lives right here.

D.R: Wow! Perfect. Still very young.

J.M.R: A little bit.

D.R: This second question is with all due respect. If you have a very unique last name, could you share a little bit about the history of your last names?

J.M.R: Yes, look, the surname Raygoza is of Portuguese origin, they tell us that a Spanish immigrant moved to Portugal and, as he had certain characteristics, was adopted in the Court of the King of Portugal And when he returned to Spain he adopted the surname R e y enjoys because the surname aba Goza and for being close to the king he put the surname Reygoza And already being in Spain, he married an Italian person surnamed Rigasa Y from the mergers of these two came the Raygoza, as we use it now.

D.R: Wow! I would have never expected that explanation. That is why the name of the orchard, which is called Terra Preta is in Portuguese, due to the family history?

J.M.F: I think this one does. You see that John is very original then if he did it that way. The other surname, Amozurrutia, is of V disgust origin, and my grandfather told me, that there in the Pyrenees in Spain 2 families merged, the Amos and the Urrutia, then they joined the two surnames and it was Amozurrutia.

D.R: Wow. Interesting. Notice that my wife's grandparents are from the Basque Country.

J.M.R: Ok

D.R: They emigrated to Idaho, this one in the 40s, I was fleeing Francisco Franco.

J.M.R: Yes, yes, here too, they fled to Zacatecas, they are both residents in Zacatecas, and that is the origin of the surnames.

D.R: Wow, perfect sir, Raygoza. It's a very incredible story. Karen. Do you want to ask something?

K.R: No, I just want to say that it is simply an honor to know this, that many people like me personally do not know what origin my surnames have, and thanks to you I ask my grandparents who are alive, to see if they know a little, thank you very much for sharing.

J.M.R: OK.

D.R: Gracias the third question. Could you tell us a little bit about your family? How did it grow? Where did you grow up from? From his parents? From your family in general?

J.M.R: Yes, look, my family is made up of my parents, Manuel Raygoza Enciso and René Amozurrutia Olvera and just two brothers. My younger sister and me. I grew up in the city of Torreón, Coahuila, next to my maternal grandparents, because my father died in a car accident in Acayucan, Veracruz, when I was 7 years old.

D.R: Could you tell us your father's name again so that you can write it down, well here?

J.M.R: Yes, Manuel Raygoza Enciso.

D.R: Manuel Raygoza Enciso, with c from home and then z?

J.M.R: from new house and then s.

D.R: Enciso, Ah, OK, perfect, ok. And then you grew up in Saltillo?

J.M. A: No, in Torreón in Torreón, it is next to my maternal grandparents.

D.R: Walk with the maternal grandparents, what if you could tell us the names of your maternal grandparents?

J.M.R: Hey, yes, of course, Rafael Alberto.

D.R. Rafael Alberto. Raygoza de supposego? No

J.M.R: No, Amozurrutia.

D.R: I love zurrutia sorry, perfect.

J.M.R: And my grandmother Guadalupe Olvera.

D.R: Guadalupe Olvera. Perfect, there it is. This very well, and you grew up in Torreón, and this and how did you move from Torreón to Saltillo? Excuse my gossiping.

J.M.R: And having finished studying there my high school and some technical career, I was hired by the School of Agriculture for some rural development programs. In Doctor Arroyo, Nuevo León and it was how I left there, from Torreón and from there from Doctor Arroyo and Matehuala we moved to Saltillo and we live here since 1974.

D.R: Wow! 1974. Look, I think it's the year my sister was born. This next question is could you share the story of how you and your wife met?

J.M.R: Yes, look, I was right there, in Torreón I was 23 years old, and I was playing basketball on the court of the church of Jesus Christ of Latter-day Saints, the Mormons.

D.R: ok, ok

J.M.R: to which I belong And an American teacher who worked at the American school of Torreón and who was also a member of the Church, invited one of her students to know the church that is currently my Esposa And when I saw them arrive I realized that there was a new girl visiting us, And I went out to greet her and welcome her, obviously, I think she liked me very well and we did meet.

D.R: Wow! I love that story. Was it love at first sight?

J.M.R: Yes, yes, this one, I had a lot of chemistry immediately and we started treating each other and, well, we got married in 1972. We had to go get married in the Church. To Mesa Arizona. Because there wasn't.

D.R: Go for the Mormon Church, sir?

J.M.R: Exactly yes.

D.R: Ah, so they hunted on this side?

J.M.R: For the Church if

D.R: Ah, OK OK, perfecto, I didn't know that.

J.M.R: And the civilian went to Torreón and then we moved to get married, there in the temple of Mesa, Arizona, which is closer to Mexico.

D.R: OK, perfect, right now I'm going to check the map to see where it is. Bueno, since we talked about how he met his wife, we want to talk a little about Juan, can you tell us what Juan was like when he was young? Where was he born? What was he like as a child? Was he naughty? Curious?

J.M.R: Right now, yes, right now I'm going to tell you, he was born in Torreón, although we lived in Matehuala, my wife had to go to Torreón to be with her mother and relieve Juan, there he was born in Torreón in 1978.

D.R: Okay

J.M.R: And he was a very sociable young man. Just as he is now, he is too sociable, too intelligent and cheerful. And always, we always had friends of his in the house. He had a musical group made up of four or 5 young people and played bass very well. In fact, Juan wrote several songs and invited them to play at events of government organizations and evenings with other groups. He was also very athletic, playing basketball on the high school team and doing a lot of freestyle cycling. We can say that he graduated from the University with honors.

D.R: Very impressive, what kind of music did you play, Juan?

J.M.R: He was a ballad like rock, but very quiet, very inspiring, the invention or composed a song of a young man who was paralyzed and the song said that he could fly, even if he could not walk, that he could fly with his thoughts and with everything he could achieve without walking, very nice song.

D.R: It sounds very positive, it's what we need now. Perfect, the next question is also about John Did you or the family grow up on a farm? Or did he grow up in the city?

J.M.R: Yes, yes, this Diego, we live here in Saltillo, but in a place a little outside the city we had a house with a large plot of land behind and a part of it was a garden and we had fruit trees. And we had a chicken coop and grew vegetables for family consumption.

J.M.R: I want to tell you to go, tell Karen and Diego that we had to be very careful because Juan, since he was 2 years old, went out there to the field and sometimes ate the spinach directly from the ground. Without having cut them, he would start eating them there and his mother had to go out and remove him because he could eat dirt.

D.R: Oh, no! and I imagine.

J.M.R: Yes, yes, yes, this one. And he was asking why you want to eat spinach? Juan said, I want to be strong like Popeye.

D.R: Awww, how cool.

J.M.R: Sometimes I would feed the chickens and collect eggs for breakfast and help with chopping on peaches, plums or figs and doing other simple tasks. From a very young age he observed an eestilo of life, of family self-sufficiency. Because in the Mormon Church they promote a lot, the family store that one must have prepared for a situation of contingency of illness or lack of employment, so it is always what he observed that in the house and my wife made granola, packaged, tomato, peaches from fruit trees, made jams and he observed all this with great observation, yes.

D.R: Wow! Eso is perfect. I'm going to copy it. That style of life after we went through the pandemic, I think it's going to be very useful in the future.

J.M.R: It is necessary, then, above all because we are in a situation of very strong inflation, if that is something else.

D.R: Well, that was the next question I was going to ask him, but they answered it, which was what were Juan's duties? Well, I think the next question would be for his wife, right? On the history of agriculture in the family

J.M.R: She has quite interesting information because there is a tradition of agriculture in the family very, very strong, since my father-in-law graduated from the School of Agriculture in 1934, so let me talk to her so that she answers.

D.R: Go ahead, thank you. Good morning, good afternoon. Sorry, Mrs Mireya.

Mireya Castro: Hello, good afternoon, if much pleasure.

D.R: Very please, Mr. A, look at my name, it's Diego, and my partner's name is Karen.

M.C: Hello pleasure, I am Mireya Castro

D.R: This, yes, as we said to Mr. Raygoza, we want to obtain information for our book and we wanted to interview the parents of Juan and right now we are in a question that Mr. Raygoza us, he said that you can help us, the question is you could not share, How did agriculture begin in your family?

M.C: If the link with agriculture in the family comes rather from my family, from the Castros. And we can go many generations back, but let's get short. I'll start by talking about my grandfather, he was a teacher and he also joined the Revolution that was going on at that time. He held the rank of cavalry captain. And so, he coordinated all those who were in the fight, some walked on foot, others on horseback, but he was the captain. And when the Revolution ended, he was one of the most educated among the revolutionaries. Or he won everyone who was there without much preparation. And he went to the Republic and requested agricultural land for all the veterans of the Revolution and after several years of trying, he succeeded and they gave him a large area here, about 50 km from Sattic. A very good agricultural land, very fertile and with that land they made lots. My grandfather had his lot and all the veterans got theirs. And as time went by, some veterans died, others went to another city and he bought lots near his. From there arises the agricultural ranch of the family and is the ranch where Juan, the inheritance is from us, began to exercise his profession as an agronomist. Egrandpa, then he was very farming, he planted corn, wheat and beans on that ranch and that's where he comes from. As we have here near the Agrarian University, which was then Escuela Superior de Agricultura Antonio Narro, he sends two of his children, my father, who is the eldest and another and the first two agronomists in the family leave. At the moment there are twelve who have graduated from there, three generations and Juan is in the third generation and is the one who is truly dedicated to agriculture. A healthy organic, no GMOs or toxic pesticides are being used. So, that's how farming in the family begins.

D.R: Perfect, would you share the names of your grandparents, of those who fought in the Revolution?

M.C: It is Professor José Reyes Castro Ramírez. Reyes is a name, José Reyes Castro Ramírez, yes.

D.R: And your parents, madam, could you tell us the names?

M.C: My parents' names are the engineer Efraín Castro Estrada,

D.R: What is it that John bears the most physical resemblance to?

M.C: With my dad and then my mom, it's the teacher Estela Gil Lara.

D.R: Estela Gil Lara, a children's or university teacher?

M.C: She is a teacher of children and was the founder of a school with 700 students.

D.R: Okey, Okey, this little thing that you said of the grandparents who were in the Revolution, was it the Mexican Revolution? under the command of Venustiano Carranza or Pancho Villa?

M.C: He was with the liberals, yes, with that group that you mention of Venustiano Carranza, Pancho Villa, if he followed the liberals, aha.

D.R: Venustiano Carranza. Ándele, look, very interesting, the history, I love the history of the Mexican Revolution and never eh enencontrdo to any descendant ofirecto. The only thing about my family is that my great-grandfather stole my grandmother in the revolution and that's how they got married.

M.C: Today there are many cases as it is.

K.V: One question. Excuse me, excuse me, what is the name of the family ranch that you mentioned that belonged to your grandfather?

M.C: He kept the name he had, his name is San Felipe. So as that ranch right now is divided into 3 parts, because in one part we have and then my sister and in front, rather there is my brother, who is also an agronomist. Then we named it San Felipe de Arriba, San Felipe del Medio and San Felipe de Abajo. We have wanted, we wanted to change the name, you know, we are not linked much by San Felipe, but all the people of the different ranches that are nearby, San Blas and others know it that way, so they already identify us as those of San Felipe.

D.R: Oh, wow, so if it's three sections it is, sorry for being so gossipy, but how big is the ranch?

M.C: Yes, this large is about 36 hectares.

D.R: ¡Okey wow!

M.C: And the Earth, mostly, the three parts have Nogales.

D.R: Walnut trees? A because it is, that question that followed, what agriculture did they do on the ranch?

M.C: We all have areas of Nogales, Castilla and Western. And so, from Wichita we also have land for cultivation each. We have planted beans there and all that, and well, that is the ranch that Juan since he was a student there in the part that we have we have has irrigation.

D.R: And him and his cousin Mario?

M.C: There they started from students to plant bell pepper, tomate. They built with their money two greenhouses and began to sell that it was very novel. Here the organic vegetable in the university. They gave all the vegetables to the canteen of the University of the Narro, of the School of Agriculture and sold in the market of abastos. They were also very hardworking and they were young, so we lent them, they had a small truck. That they passed them from a business that we also had as a family. They came and went, they delivered their fruit and apart they both graduated with first and second place in the university, so they were very good boys and they played and sang, they were always playing basketball, they were very healthy, yes.

D.R: More siblings than cousins?

M.C: Yes, exactly. To date.

D.R: Well, thank you very much, do not leave me yet we have several questions, but this section is going to be taken care of by my partner Karen.

M.C: Ah, very well, Karen, yes, thank you very much.

D.R: Very well.

D.R: No, no, you don't listen.

K.V: But well, good afternoon, I'm Karen Villarreal. Nice to meet you and a pleasure to give this interview with you. And are we in the 9 correct? Well, the next question would be for Mr. Raygoza. Could you share with us your academic achievements?

J.M.R: Yes, look Karen, when I got married I didn't have a career and when I arrived here in Saltillo and I entered the University and I was able to graduate in a sociology career and there I had my first Recognition because for my average of all the subjects, I exempted to present an exam. And then with support from the university because I was already working there, I got a scholarship with the National Council of Science and Technology to study a master's degree. And in that mastery it is also. I had a very high average and I had an honorable mention for the thesis I developed, which talked about the Nahuatl culture and its validity in the study programs we have now. I showed that they had a very advanced educational system and that many of the modern pedagogues took up or included there in my thesis, that they did things that were just being discovered in these last centuries, and also another very important distinction for me was that I became academic director of the University without having been graduated. Of agriculture, so that is part of my academic recognition and also the recent certification in labor competencies by the Ministry of Public

Education. And I retired from the University after 30 years of service and as a master's level research teacher.

K.V: Wow! An honor to speak with you, an honor and congratulations on your achievements. Well, one question is going to be. Did we learn that you were a faculty member of the Education Center and participating in Forestry Number 3 could tell us more about this institution?

J.M.R: Yes, Karen look is when I retired from the university and asked by this school, if there was someone who could teach some subjects there? And they talked to me and they recommended me and I went to interview myself and this school is a technical school, that is, the students do not have a bachelor's level, they receive their high school certificate and then separate a title of forestry technicians, that is, they attend everything that trees are everywhere. In this case that of the vegetation of the arid zones because we are in a part of the desert and in part we have some mountains full of pines and trees. So, they have a very important theoretical-practical preparation and here to this school that is here near the house students come from all over the Republic to Baja California, Oaxaca, Guerrero, Veracruz and they have a boarding school that gives them their attention of lodging and food. Also, there I was certified in teaching at the upper secondary level as a requirement to be able to teach. And something that fills my wife and I with satisfaction is that for 10 years I received the merit of being named the best teacher in the school.

K.V: Wow! Congratulations again, congratulations. Could you tell us about Dr. Mario Castro Gil?

J.M.R: If he was my wife's brother and his training since childhood, it was in the countryside because of my mother-in-law. He was director of practical schools of agriculture in the years 19 40 and 19 50 and he came to be at the age of 10 to be head of *Tractoristas* in a practical school of agriculture. He had a lot of skill for field activities. He studied at the Antonio Narro School of Agriculture as an agronomist. And then because of his qualifications, he obtained a scholarship to study at the Chapingo graduate school there in Texcoco State of Mexico and later also a scholarship from the Rockefeller Foundation to study a doctorate at the University of Nebraska, in the area of corn. The most important thing about his work is that he was the creator of the super dwarf corn that came to give 20 tons per hectare at an experimental level. With a corn design very different from those we knew at that time, instead of being very tall, it was very short about a meter and had its leaves erect to be able to receive sunlight and with a thick stem that could hold the cobs of a normal size. Then the genus or design plants with different idiosyncrasies to which then había and that is why it is recognized worldwide for this contribution.

K.V: Thank you very much, we learned from our teachers that you are a published author, could you tell us about your publications?

J.M.R: Yes, look at Karen, bueno, being in the university, published a book that was called didactics of the university professor of the University, which would serve as a guide for

teachers. As we did not have teacher training, we could have an orientation based on pedagogical principles so that we gave our classes well and then also collaborate in the ideal profile of the graduates of the university to see how they should be prepared to respond to the needs of the environment and their profession, also participate in the publication of the academic reform of the university and finally, the book of the sower, which is the story from childhood to his death, by Dr. Mario Castro.

K.V: Yes, I know, and it was going to be my last question, what inspired you to write a book about Dr. Mario Castro Gil the sower? What was your inspiration to do this honor to Him?

J.M.R: Well, I want to clarify that my wife and I were working on the project and we did it as a recognition for their work for the benefit of the peasants who have fewer resources. He created, hybrids que had the characteristic of being planted, but they had to buy more seed again to be able to have another production and seeing that this was going to be very difficult for people who had less resources, work and created a variety that was also dwarf, but that if the peasants sowed it Podrían collect seed the best seed from their ears and replant it without having to go to buy more seed and with this they would have a much higher income for not having to spend on the purchase of seeds, but of their own material they were going to do it and it had the characteristic that it did not lose its genetic properties, but that it continued to conserve it. This was a very important thing. This was called the variety Antonio Narro 361 and the first one that was a hybrid was the AN 360, Antonio Narro 360 and these had a high yield And another thing that drove us to write the book is that he achieved the transformation from agricultural school to agrarian university, yes, with a innovative system of departments instead of faculties where everyone contributes to train students by contributing each day and finally, created the Instituto Mexicano del Maíz, which is attached to the university. We can also say that he was an outstanding agronomist and a world-renowned genetics scientist.

J.M.R: He visited countries like Yugoslavia, like Israel, China, Venezuela. Many parts of the world making known his technique and research, he was recognized worldwide and, above all, he was a great human being. It has touched us when we went to Juan's master's graduation in Kingsville from the University of Texas we saw that when touring the fields of the Texas Valley. Or we believe, for example, that maize and sorghum crops are now dwarf plants. It means that this contribution has already been disseminated throughout the world and that pattern is being followed to use less water and have high yields with smaller plants. That was the reason why we decided to have that book written by Juan's uncle.

K.V: John's uncle? His wife's brother Mireya, right?

J.M.R: Yes, Mario Castro Gil, yes.

K.V: Thank you very much, as you say, to go through any part of the world and see that little bit of invention, more said the impact it had on the world of agriculture, and so on.

J.M.R: The world is being used now.

K.V: How nice what, how beautiful. And more for you.

J.M.R: There is one, there is an anecdote that I would like to add. In 1978 there was a visit by the President of Mexico to China. And the President of the Republic spoke to the Octor Mario, and told him, well, that he did not know what he could take there and sent as a gift an endowment of dwarf corn seeds. So that they could use it to feed the 1 billion Chinese who need food.

K.V: And what *presidente* was? Disciple, what was president of the Republic of Mexico?

J.M.R: José López Portillo.

K.V: This is a question that excuse me do not add, and it is for is about the family and is for both of you if one of you has this information. The question is what traditions do you have in your family? What is a very special tradition that we would like to tell? Any of the two.

M.C: Well, look at the traditions that we are used to getting small. Once a week the children did what we know as family home evening, where the four of us met. My daughter, who is the eldest, Juan's older sister, my husband and I to talk, to see what requests they had, if their room needed anything or if they needed shoes or what they were going to plan to organize our budget. H we also had something fun, we had to give as a talent. So, John didn't like it when he had the snack because he had to make lemonade or sandwiches or something for dinner. But we had a great time and when they were children they liked it more as young people as they went to the wards and half tired, but that helped us a lot so that there was no conflict to get big because every week we looked for solutions. Also, the Day of the Dead in my mother who was a teacher and very knowledgeable about the Mexica culture. She was even very recognized in Torreón.

M.C: To give talks about this tradition and we also liked to do it as a tradition, not precisely as waiting for the dead, but talking about them, their achievements, what they had highlighted And things that strengthened us, the pride of the family so that they would try to follow the children. And if the two have continued because my eldest daughter is my aestra. Bueno is a communicologist with a master's degree in education. She is a high school principal, just like my mother, and Juan took the direction of agriculture, just like the ancestors too. Christmas and birthdays, celebrated from early in the morning, the *mañanitas* and all that, those basically. Well, almost no more is that birthday and normal.

K.V: Thank you very much.

M.C: Thanks to you, did you pass on to my husband?

D.R: Justone last question, this good part of me. What is John's sister called?

M.C: Yes, and angelica. Stele Aangelic. Like my mom, aha. And my mom was also a teacher, so I do think that's also a tradition when it comes to following those vocations, those careers, right?

D.R: In my opinion, it's an excellent tradition.

M.C: Yes, aha.

D.R: Karen [do you] have another question, do you want to ask?

K.V: No, I'm done.

D.R: Many of those are the questions we had for you for that interview. Is there any other anecdote that you want to share with us?

M.C: Well, no. This one from John, above all, link him from where all that he is generating now comes from.

J.M.F: You can talk when he arrives in the valley, like a little piece with my mouth.

M.C: Haz, yes, I think I already tell him in his story that when he arrived in the valley since he arrived, he was there looking for someone from the church to lend him a piece because he wanted to produce organic food for his family, and even at that time it was not so common that there was organic in supermarkets. And he was a little bit around there they lent him, but as he is very sociable and helpful, he always made his way to get to what he is doing now.

D.R: Perfecto, I think that a colleague of ours is/are the ones who are going to interview Juan in terms of the family, but if we are all going to help each other, and share these interviews.

M.C: Well, if they had any doubts, or wanted to, I don't know photos or anything that could help them? We have one, I think we still have it, because then he comes and sculpts the album and takes some, but where is it small. It is that we had a rabbit and I saw the rabbit that the spinach ate from the floor and we have a photo where he is still in pajamas and is already in cat to s, eating spinach, to do everything full of Earth of the mouth. But if they need anything, they already know that we are at their service.

D.R: Yes, notice that if you can share a photo of the family to put in the book for people to know, we would be eternally grateful to you.

M.C: Of course, and we send them to this email, right?

D.R: Yes, yes, yes, my email is diego.rivera@utrgv.edu.

M.C: Yes, I think that's how I think we have it. I gladly command something that may be related.

D.R: Yes, thank you very much. Well, I think this would be all for today. This, as we told Mr. Raygoza, we are recording this interview, Karen and I are going to transcribe it all in quotation marks between paper. And when we finish we are going to notify you by email that the transcript and if you can read it, if you want to make any changes, this can do it to finish it before putting it, our book. Apart from that, like everything, we want to have everything formal, send them by email a form where you can fill it out giving us authorization to put all this in our book.

M.C: Of course, with great pleasure in which we can support them, you know.

D.R: Thank you very much, Mr. and Mrs. Raygoza, have a nice time, enjoy this excellent climate. Well, I don't know how they are in Saltillo, but here right now it got very nice.

M.C: Right now, it's a little sunny here, but already cool.

D.R: Walk like this, we rest a little from the heat. Go ahead, well, thank you very much.

J.M.R: Thank you, Diego and Karen.

M.C: Thank you, have one you have your house in Saltillo

D.R: Thank you anyway. *Andle* and we are here in the valley.

M.C: Well, thank you.

D.R: Bye.

K.V: Bye.

M.C: Bye.

J.M.F: Bye.

Appendix F

Interviewee: Shakera Raygoza (daughter)

Interviewers: Dina Morales and Ana Gutierrez

Interview date: October 28th, 2022

Interview location: Raygoza family farm, Edinburg TX

This interview was conducted in person in a storage shed on the Raygoza family farm. They usually use it to wash vegetables but this evening, we set up four chairs. The mother, Shakera Raygoza, was present during the interview. The purpose of this interview is to ask little Shakera Raygoza questions about her life on the farm and how her personal life integrates itself around the farm. Little Shakera Raygoza is 16 years old and attends Robert Vela High School in Edinburg, where she is a junior. She loves animals and loves to be outside in nature. The interview was conducted with the door open, so crickets chirping, and the occasional car can be heard in the background.

Dina Morales: Okay. Um, can you please state your name, age, where you live, and who your parents are?

Little Shakera Raygoza: My name is Shakera Raygoza and I live in Edinburg, Texas and my parents are Shakera Raygoza and Juan Raygoza. And I'm sixteen years old.

D.M.: (to Ana, motioning her to take the microphone) do you mind holding this?

Ana Gutierrez: Yes

D.M.: Thank you. Okay so first question. What kind of skills and experiences have you gotten from being part of a farming family?

L.S.R.: I know how to create a uh, like a planting mix. Um, how to plant and how to use the... the pot (looks towards her mother, sitting next to her)

Shakera Raygoza: Oh, the transplanter? It's called a pottiputki.

L.S.R.: Yeah. How to use a transplanter. Um, how to raise chickens. Um, sheep, goats, what else? How to cook lots of different vegetables. And how to identify which weeds you can cook and which weeds are bad. And the pollinators, which uh flowers are good for them. And, hmm, how to plant a tree. How to harvest different vegetables.

D.M.: Are these um, are these skills that your parents taught you or that you just picked up?

L.S.R.: Oh, that my parents taught me.

D.M: So, does anyone of your peers at school know that you come from a farming family? And have you ever invited anyone over to the farm? To like hangout or something.

L.S.R: Yeah, a few of them. Like most of my close friends know. And, uh, well yeah I guess when they come to my house they come on the farm and we give them a tour.

D.M: Oh really? That's cool. Um, okay next question. Do you think that your upbringing has been different from kids that don't come from a farming family?

L.S.R: Definitely.

D.M: How so?

L.S.R: Um, well I always- whenever I like, tell stories like, we see a snake or a jackrabbit. Like its normal for me but not for them. And like, woah! Like, how did that happen?

D.M: Next question. So, what's a typical weekend like for you here on the farm? Like, what kind of chores and responsibilities do you have and how are they different from your younger siblings'? Like do you have more responsibilities?

L.S.R: Well, usually I'll sometimes help watering the plants. Or, picking up the eggs from the chicken and feeding them. And then, sometimes if we have an order or something I'll help with like harvesting the vegetables.

D.M: And, what kind of stuff do your younger siblings do on the farm?

L.S.R: Hmm... well they don't really do that much

(We all chuckle)

L.S.R: But sometimes we'll...on Sunday's we'll like come and plant like, new seeds or new little plants.

D.M: Like, together with your siblings?

L.S.R: Yeah, as a family.

D.M: So, I know earlier you had told me about some animals that you have here. But um, tell me about all the different animals you have here on the farm and do you like, view them as pets and what kind of pets do you have? I know that you have Brittney, but do you have any other ones?

L.S.R: Um, so we have Brittney the blue heeler, then we have two chihuahuas – mixes- and then...one time, we had a lizard. And then, we used to have sheep and goats which were like pets because they would just like, eat the grass. Like, instead of mowing it they would be the mowers.

D.M: That's so cute! Okay, so how has been part of a farming family brought you closer to your community here in the RGV? Do you feel like it has?

L.S.R: Yes, I think so. Like um, when we used to go to the markets like, we know like a good amount of people. Like, I'll remember people and they'll remember me. Like, oh I remember when you were so small! Or um, the school district. Sometimes we work with them so like, now they know our family. And because of the vegetables.

D.M: And um speaking of the farmers' market; do you look forward to them? What are your favorite and least favorite parts of participating?

L.S.R: Yeah well, we don't really go a lot now but yeah, I did look forward to them. And my least favorite part was probably trying to do the math. (laughs) With like, calculating all the prices. And my favorite part was getting ice cream. The vegan ice cream there. And getting an allowance for helping.

D.M: Oh, that's nice. (we all laughed) that's always nice. Um okay, I'm gonna hand it off...(Shakera Raygoza's phone goes off for a second before she silences it) ...to my partner to read the rest of the questions. If you can understand my handwriting.

A.G: So, we know that your family farm is organic certified. What does that mean to you? How would you describe it?

L.S.R.: Well, I'd describe it as not having any pesticides or any harmful chemicals. And um, it's just like, since it comes from my farm, like, I know how my food was grown. So, I think it's pretty important.

D.M: Do you feel like a um, a difference in taste and quality?

L.S.R: Well like, in the carrots, in the broccoli. Definitely in the carrots they taste like, fresher. And... what else? Usually they'll like, coat them in wax so they'll last longer. And here we don't so you don't have to worry about that.

A.G: What has been your favorite aspect of being raised in a farming family?

L.S.R: Um... well I really like going and picking the food and then helping my mom cook it and then eating it. I think that's what I really like. And taking care of animals.

A.G: It's definitely different from other kids. Do you like it?

L.S.R: I like it.

A.G: Would you like to pursue this career when you grow up?

L.S.R: Uh, I don't know if I'd do farming, but I would definitely like to do something with animals and like, maybe have my own little garden at my own house when I'm older.

A.G: So, what other career options do you have?

LSR: Um...

A.G: Is it something with animals?

L.S.R: Like helping with, like, populations and like...cuz, I know a lot of them are endangered now. Like, I was reading articles and how they also get affected. Like, the bees. And then also, being a chef. Or like a baker.

D.M: So, you'd like to work in like, conservation? I think that's what it is, yeah.

A.G: How is your life outside the farm? Are you enrolled in any extracurricular activities? Do you have hobbies?

L.S.R: Well, I do piano. At school I have cooking class and an art class, I like doing art and I used to go horse riding.

A.G: You have a cooking class! That's interesting, at school?

L.S.R: Yes, and today we made like a chicken enchilada casserole so that was really fun.

A.G: This kind of goes with my next question, so how does harvesting different types of vegetables allow for endless possibilities of meals, what are your favorite meals to make?

L.S.R: Hmm... I like making lasagna, eggplant parmesan, what else? I like making zucchini pasta spirals, and then stuffed peppers.

A.G: My mom usually makes this spaghetti, like from the butternut squash, instead of using pasta, she uses that with tomato sauce, and it is really good.

L.S.R: Oh yes, I love butternut squash

A.G: So, I'm guessing you have to come up with a lot of recipes!

A.G: How is your relationship with your siblings Shakera? What do you guys like to do for fun?

L.S.R: We like to watch movies together, or when the weather is nice, we go walking outside, just like talking about our day, or like mostly during sunset. We like to play soccer or basketball together. Yeah, we don't really argue as much as we used to, so it's good right now.

A.G: That's good!

A.G: Can you think of any interesting, memorable anecdotes that have happened at the fair? It can be funny, scary, surprising, or can give an example of each.

L.S.R: Well, let's see. One time we were walking outside giving a tour to one of our friends, and my dad sees something in the grass, and it's a snake, it is one of those garden snakes, but then he sees another one and there was two of them and we got scared, so we started running away and they just like slithering everywhere. Then my brother grabbed one with gloves on, he put it in a tub and he was like trying to feed it like little grasshoppers and stuff, but then he released it afterwards. There's been frogs that get in our pool, and we have to take them out, and that was really funny.

D.M: So, your brother, would you say that he is the one that like, if he sees an animal...

L.S.R: He'll try and grab it, yeah.

L.S.R: We've had lots of snakes, little jumping spiders in the house. One time there was like this three little baby like rats or mice and we brought them inside the house in a little box, we were trying to feed them milk, and then like one of them escaped in our closet and we had to look for it everywhere, and then my brother finally found it and he took it outside, but yeah it was in our room so..

D.M: How do you feel about bugs or like little creatures like frogs and stuff?

L.S.R: I like, I mean I'm okay with frogs, I really don't like the walking sticks, like they scared me one time because, like I like looking at them from afar but then I was trying to take it outside and it like jumped and started crawling on me and I was just like trying to get it off. So, I like them from afar, and I like reptiles but like from afar.

A.G: Yeah, me too, I like animals too, but reptiles I just rather keep my distance.

D.M: So, you had mentioned that one of your favorite pastimes is like go walking outside. I noticed that there's no streetlights out there, are you one to be scared of the dark or...

A.G: I was going to ask that as well, do you ever go outside like walking at night?

L.S.R: Umm yeah sometimes like we're working late, or like looking at the stars um but yeah, If I go outside at night, I always go with Britney, cause I feel safer with her.

A.G: And do you have other animals here? Like goats?

L.S.R: Yeah well, we had to sell them, because it was getting hard to keep up with them, with school, because I couldn't take care of them anymore. Umm but we had two goats and two sheep, right?

S.R: Mmm, no we had three.

L.S.R: Oh yeah and then we had three, and that was really cool because they had babies each one of them, and we got to raise them and feed them milk and see them jumping around and they're just really cute.

D.M: You had said that like, has the school ever been harder because of like working here? Or working like on the farm has that made schoolwork a little bit harder?

L.S.R: Not really, I just actually it's like an escape from schoolwork because I like coming outside and like even if it's considered work, it's not really work for me.

A.G: You've gotten used to it. Is it more on the weekends that you do the farm work? And during weekdays, I mean you have homework.

L.S.R: Yeah. Takes up most of my time.

D.M: Was that the last question?

A.G: Yes.

L.S.R: There's a bug.

A.G: Where?

L.S.R: Under your shoe. It's like a moth

A.G: I'm not going to look.

D.M: I think it's, oh no it is not trapped, it's like moving its wings.

D.M: Well, those were our questions. Thank you so much for meeting with us and communicating. Also, can you please state your name and that you are Shakera's mother.

S.R: Oh yes. My name is Shakera Raygoza, and I am Little Shakera's mom.

D.M: Thank you so much.

Appendix G

Interviewee: Kanani Raygoza

Interviewer: Natalia Perez

Interview date: Friday, November 4, 2022

Interview Location: ZOOM

This interview was conducted on ZOOM on the 4th of November of the year 2022. The interview lasted approximately 17 minutes. The interviewee is Kanani Raygoza. Miss Raygoza is the daughter of Juan and Shakera Raygoza, whom are the owners of the Raygoza Farm. Based on her accounts she will tell us what life is like as a child growing up on a farm.

Natalia Perez: Okay. So how are you first of all?

Kanani Raygoza: I just click? Can I click Got it already?

NP: Yeah!

KR: Okay.

NP: Um, how are you?

KR: Uh, good, you?

NP: Good (laughs)

KR: (Laughs) that's good.

NP: So, I'm gonna read you your rights, which is basically that you have the right to stop this interview any time you feel like uncomfortable or anything, um, you can stop the interview and say like oh I didn't get what this question meant or if you feel like somethings not clear, um, you can refuse to answer any of the questions it can be like, "oh no this is too hard", or "no I don't want to answer that question". And you have the right to tell me after were done with the, with the interview that you don't want to use that question, that you don't want to use something that you said, and you have the right to reschedule like if this ends up being something like that ends up being like too hard or something.

KR: (laughs)

NP: Um, but those are your rights, so if anything,

KR: Okay!

NP: Um, so, how was school? I know you just got back from school (laughs).

KR: (laughs) Uh yes, it was good, I had a benchmark today, but it was good, it was good.

NP: I remember when I would take benchmarks, I hated them.

KR: Yeah (laughs).

NP: They're so annoying.

KR: Mhm.

NP: So, we're gonna start off, I have to give an introduction. So, this is... Today is Friday November 4th, 2022, my name is Natalia Perez, and I am a student at UTRGV in Edinburg, Texas. I am here today with Kanani Raygoza conducting an oral history interview for our university class titled 'Discovering the Rio Grande Valley' as we research the Raygoza Family farm. Okay, so first question. What is your name and how old are you? Where do you go to school? What grade are you in?

KR: Kanani Sariah Raygoza, I am thirteen years old, I go to school at South Middle School, and I am in eighth grade.

NP: That's cool, I was think about it and I was telling my mom about it, and I was like "I think she's my sisters age, I'm not sure".

KR: (laughs)

NP: And then I was like "wait, no she's in middle school never mind". Um Okay so what is your favorite subject at school? Do you participate in any after-school activities? If so, what are they?

KR: Mokay well, my favorite subject, um, I guess this year I kinda like science more than the rest of them. I am in after-school activities, um, right now I'm in NJHS which stands for National Junior Honor Society, I'm also in the school basketball team, b team, so I stay after-school every day for that.

NP: Oh, that's pretty cool, I was never in, in sports, or anything.

KR: Sports?

NP: No, I was more like in the other one where you do service hours and everything but never in sports. I don't have a sport, no athletic bones.

KR: I like it, and I'm mostly in it because I did it last year, but I don't think I'm gonna do it in high school. (laughs)

NP: (laughs) It's hard. Mmm okay, these questions are going to be more regards to the farm and your life on the farm, so it's a little more thinking. Um, what is your life like on a farm? Do you like it?

KR: Um, yes, I like it, um we do have like more space outside to go outside and play which is cool like whenever we invite our friends over to do something. It's very pretty and we

have more space to play around like ride our bikes and stuff, but it's also like a little more time consuming for our parents, like if you wanna go out we have to wait for them to finish an order, pack everything.

NP: Ugh, I bet it's like "Ugh I wanna leave already" (laughs)

KR: (laughs) Yes!

NP: Um, what type of things have you seen being grown over the years as you've grown on the farm?

KR: There's been a lot of stuff. I know like every year we usually get some carrots, before there used to be more beets and stuff like that, and we've grown radishes tomatoes, like bell peppers, jalapenos, uh lettuce, spinach, cabbage, cauliflower, broccoli, stuff like that.

NP: Do you all have different colors? I know there's like different colors of carrots, different colors of, I think there's like different colors of cabbage sometimes.

KR: We've done orange, yellow, purple carrots, green and purple cabbage, and then purple and white cauliflower.

NP: Oh, that's cool! I didn't know that purple cauliflower!

KR: (laughs) Yeah!

NP: That's so cool! Um, okay, when did you start helping out with the farm? What would you do?

KR: I was probably like 6, 7 years old, and we would mostly help with like packing stuff for the farmers market or like when we would give the boxes and then maybe with picking stuff and then with the prices and stuff like that if our parents had to leave, it was cool to be like the little managers there.

NP: (laughs) Oh that's pretty cool that you started at like 6, it's like at the ripe age starting to do that (laughs).

KR: Yes!

NP: Um, next question is, what are some of the things you help with around the farm now? What do you like to do together with your brother and sister on the farm?

KR: Now since I'm real busy and stuff I do stuff on the weekends which is just like transplanting or like um making the mix for the transplants or like picking stuff but yeah that's basically it. And stuff I wanna do with my brother and sister on the farm I guess it's like um just do, like go outside more with them. Because like we do have the farm and everything, but we don't usually get to go outside together with all the stuff we're doing. So that's what I wanna do just admire everything and watch the sunset (laughs).

NP: Kind of like hang out with them?

KR: Yeah!

NP: How about it the summer? Do you all do anything in the summer? Like anything differently?

KR: Anything differently? Well, we do have like the space for a pool so we usually get in the pool outside, or my, like in the summer before we did used to go more on our bikes like up and down in the front because we had this space so that's what we usually used to do and this summer, we went outside almost every single day to watch the sunset and we took a picture.

NP: (laughs) Cool! I'd love to see the sunsets over there.

KR: Yes, they're beautiful.

NP: Um, what would you like to grow, or have your parents grow for you?

KR: I would like to have more fruit, because we do have grapes, but I want like strawberries (laughs), I want strawberries.

NP: Yeah, I was thinking, I wonder how many fruits they grow or like.

KR: We also have bananas, papaya, mulberries, that too.

NP: Oh! I didn't know bananas could grow here!

KR: (laughs) Yeah! We have a banana tree! They're small but they're good!

NP: They're good. Okay, um, does anyone ever ask you questions at school regarding the farm?

KR: It's mostly my teachers like if they wanna come um get stuff. Actually um, I think it was the beginning of November my coach for basketball, asked me, asked what we grow on the farm, so that was recent.

NP: So, it never gets like, like tedious like ugh they keep asking me or.

KR: (laughs) No, I kinda like it cause it's like, oh yea I own a farm, well my parents own a farm, and I live on a farm (laughs).

NP: Okay, um, what is your favorite dish that you all make with the veggies you grow?

KR: we do like a lot of dishes I know that one time we did cauliflower pizza with um the purple cauliflower, but I think that my favorite is the lasagna because we get to put our eggplant and our squash, stuff like that.

NP: And you all make like the dough for the pizza with the cauliflower or like (laughs).

KR: Yes! The dough is the cauliflower.

NP: Oh wow!

KR: Yes, like the crust.

NP: And for the lasagna, the lasagna is actual lasagna or like you all make it?

KR: (laughs) It's actual lasagna.

NP: Oh okay, I was like you all make the lasagna too?

KR: We also make, um spaghetti I don't know if its cucumber or zucchini but like we have this machine and you just put it in, and it comes out like spaghetti, and you just put the sauce on it.

NP: Oh, that's pretty cool!

KR: That might be my favorite one, I really like that one.

NP: That's pretty cool! Um, when you grow up, would you like to continue and have your own farm or with your, or would you continue to work with your parents on their farm?

KR: Um, I don't think so, because it's like a lot of work and I do spend time outside, but I don't enjoy it that much, so I might just do something else.

NP: Do you think you might do something that might to be connected to farming or something with the environment.

KR: I think, maybe, like, maybe like something with the schools to make them like more outside activities to make them grow your own food and it kinda goes hand in hand.

NP: Yeah, I think that would be very beneficial for schools, like lots of people don't even know how to cook and.

KR: Yeah

NP: Um, what is one interesting fact that you know about growing crops?

KR: Um interesting fact, let me think like there's a few but I need to think.

NP: (laughs)

KR: (static)

NP: I think you're cutting off.

NP: Okay okay.

KR: From that question right, I start over right.

NP: With the, with the, what was it?

KR: Something about an interesting fact.

NP: An interesting fact about the crops.

KR: Um, like make sure you don't put too much water, and sometimes like to a certain amount when it's too cold you have to cover them up, also that like that broccoli and cauliflower are both actual flowers of the plant, yea, and then if the broccoli like um I guess like if you don't cut it soon enough it will continue growing and sprouting yellow flowers.

NP: Ooo, that, that's pretty cool, that's something that I wouldn't have known if I wasn't like doing this.

KR: Mhm.

NP: So that's pretty cool. Um, can you share one of your favorite memories of you helping out or being at the farm?

KR: Um, I remember when we were still starting to move here it used to be really dirty so we had to pick up trash and all that stuff, but I remember we went to the very back, it was on Thanksgiving, so we came to the farm and we started um like doing irrigation like fixing it back there, and I really liked it like it was Thanksgiving and we were all together, like even our dog, our only dog that we had at the time came, he was running around. And we got home, and we ate a feast, that's one of my nice memories from the farm.

NP: Oh, that's cool. Um, if you have animals, which I do recall that you do have animals on the farm, which is the animal you like most on the farm and why?

KR: Right now, we have chickens and dogs, and we used to have goats and sheep, but we had to sell them because it was getting busy with after-school and the farm and then having to take care of them. But my favorite one of the ones that we did have was this sheep called Canelo, like I think its cinnamon in Spanish. Um yea, he had huge ram horns, but he was super nice and whenever we'd bring out the feed, he would stand on his hind legs so that's what I liked about him (laughs).

NP: Animals can be so funny sometimes.

KR: Mhm.

NP: Okay, so, this one is kind of a tricky question but I'm sure you'll understand it. Um, do the animals and plants ever help each other out. As in animals feed off of crops, and animal poop gets used as fertilizer. Since I know that you all are an organic farm.

KR: Yeah, um, I feel like sometimes it does go hand in hand. I know that before when we used have sheep and goats, um they would kinda be walking around the areas, and then we would start growing there, and now with the chickens, they have like a chicken tractor so we can move them around, but now we're using it more for our grass, when they, we leave them there in the area and they poop and then the grass starts to grow better.

NP: Oh, that's cool, OK, so those are all the questions that I had, so you're (laughs) free for the afternoon.

KR: (laughs) Okay!

NP: Um, so I'm going to send you two, um, well it for you and your mom so you can fill it out together, um it's a, ugh what's it called, um let me check what it's called, I know what it's called, but I'm blanking like, it's a consent form.

KR: Okay!

NP: But you guys can sign it off so I can use it at what we're using it at the UTRGV research thing. And you sign it, and you email it to me, if you have any trouble with it just email me your mom can text me and I'll show you all how to do it. It's pretty easy, it's a word document so you can just type out whatever you need, Okay?

KR: Yeah.

NP: So, it was really nice talking to you, you are a very fun person to interview.

KR: Yes!

NP: So, thank you, I loved all your answers for all the questions!

KR: You too! I'm really glad I got you as an interviewer because you're nice and I was, I didn't want to get anybody who would be drilling me about questions either (laughing).

NP: (laughs) No, I wasn't going to be like "Oh tell me, tell me, tell me".

KR: (laughs)

NP: Okay, well I hope you guys enjoy your afternoon, enjoy your night, and have a good afternoon!

KR: Thank you! Bye!

NP: Bye!

Appendix H

Interviewee: Andres Raygoza

Interviewer: Matthew Ryan Martinez

Interview date: November 5, 2022

Interviewee location: Edinburg, Texas

Interviewers' location: Donna, Texas

This interview was conducted on November 5, 2022 electronically over zoom. The interview lasted approximately 10 minutes. The interviewee is Andres Raygoza, the 9-year-old son of Shakera and Juan Raygoza, owners of the organic farm Terra Preta located in Edinburg, Texas and the subjects of our class study. This interview is a glimpse into the life of a farm family and how it has impacted their children.

Matthew Ryan Martinez: Today is November 5th, 2022, my name is Matthew Ryan Martinez and I am a student at UTRGV in Edinburg Texas. I am here today with Andres Raygoza conducting an oral history interview, sorry, for our university class titled "Discovering the Rio Grande Valley" as we research the Raygoza family and Terra Petra Farm as well their farming family legacy in Edinburg, Texas. Let us begin

MM: Okay so, umm let's start off with you Andres, how old are you and what grade are you?

Andres Raygoza: Umm I'm 9 and I am in 4th grade

MM: 4th grade, what school do you go to?

AR: (Um), Gorena Elementary

MM: Gorena Elementary, yeah, I went to Donna and I'm from here.

MM: What's your favorite subject in school?

AR: (Um), Math

MM: Math? (Ugh) that was my least favorite to be honest mine was always history and reading, never good at math (Laugh)

MM: (Umm) oh, do you participate in any like after school activities like clubs, sports anything like that?

AR: (Um), I do visual arts, robotics and basketball.

MM: Visual arts? What's visual arts?

AR: (Umm) (pause) it's basically just like um you practice drawing and painting (hmm)

MM: Oh, okay yeah I get it I understand now

MM: (Umm), oh do you know any classmates at school, any other people in school that are also in farming families like you?

AR: (Umm), no

MM: Ohh (stammers)

MM: Okay (umm) I just got a couple more questions. It's just gonna be like 15 and once we're done, we can finish.

MM: So, it's gonna be, oh what are some of the ways you help around the farm I know you've mentioned before when you lived in the Weslaco that you guys would uh, you help them pack the crops right?

AR: (Umm), getting the eggs (dog barks), umm transplanting and weeding.

MM: Transplanting and weeding, okay thank you.

MM: And (umm) oh, I know you also mentioned that very early on you guys would go to farmers markets, right? And like to go to like the ice cream things and all those stuff afterwards so umm how do you feel about the farmers markets (dog barks)?

AR: It was fun because you get to look at all the (dog barks) at all the like all the tents and what they have there and just be looking around.

MM: (chuckle) Is it like an all-day thing or it just like mostly for a couple of hours?

AR: Just for a couple of hours.

MM: Ohh okay, (umm) oh I know you've mentioned in class when we first met you all about the pollinators right, all the different pollinators you would see at the farm, are there any animals that you've like only ever seen at the farm?

AR: (Umm), like umm, prairie dogs sometimes we've seen around the farm.

MM: Do you see them a lot?

AR: Hmm?

MM: Do you see them a lot, sorry?

AR: Yeah

MM: (chuckle) Oh okay, umm, okay and umm like umm as far as farming and all that. What's your favorite crop to harvest and to help out with?

AR: (Umm), Carrots

MM: Carrots okay, umm and is it only just like I know your dad, Juan mentioned that sometimes you grow different kinds right like the purple ones, orange ones is there any specific ones that are your favorite?

AR: Purple.

MM: The purple ones okay, do they taste any different sorry?

AR: (Umm) no

MM: (chuckles) oh okay it's just the color? Okay umm oh last week that we were on the farm we actually found like a rock that signals that like Native Americans had gone through like where your farm is so have you ever found anything cool like that on the farm? Anything a little bit strange?

AR: (Umm) the Only thing that I've found that's kinda strange it was a (um) it was a rock that had like markings on it and looked like it had been struck by lightning.

MM: Struck by lighting? Oh yeah, (umm) like it had really hard edges and stuff like that?

AR: Yeah, and it had like (um) dark black line going down.

MM: Yeah, no that might have been something like that too, something a Native American used a long time ago that's cool

MM: (Umm) okay, and oh I know you've already said your favorite were the carrots but um out of all the stuff you eat there on the farm what are other stuff you like you guys eat that you harvest there?

AR: Okra, bell peppers, cherry tomatoes and lettuce and carrots.

MM: Lettuce and carrots, thank you.

MM: (umm) oh, what tools do they use to get all these things or like do you use to help out with?

AR: (umm) I don't really know the names, but I do know for the ocras sometimes we use scissors.

MM: Hmm

AR: For the carrots we use (Shakera says name of tool) the what? We use a broad fork...

MM: (chuckle) oh okay, well thank you.

MM: Okay (umm) and how do you feel about a class, I know it must be weird a little bit, right it must be a little weird right that were all like studying your farm. How do you feel about it?

AR: (umm) I don't know weird (laughs) sometimes (umm) yeah.

MM: Just weird? (Uh) well in case you ever do go to UTRGV or any like go visit any libraries near here there will always be a book that will have your alls families like farm history on it and all that kind of stuff this will probably, some of this will probably be in there too.

AR: That's cool.

MM: Yeah (chuckles), yeah and they put them all over the Valley so any public library books in the valley you can find them.

MM: (umm) oh would you like to continue farming like your family and also I know your dads parents, your grandparents they were really into agriculture as well, so would you like to continue it or no?

AR: I don't really know right now.

MM: No yeah, I understand that, it's a lot of work right and stuff, no yeah I get you.

MM: And, but just in case you would (um) is there any kind of plants that you would like to plant there like specifically?

AR: Carrots, tomatoes and cucumbers and green beans.

MM: Cucumbers and green beans, okay well (umm) that's all the questions I had written down. I don't know if you want to add anything to (uh) anything you want to add. Maybe it'll be in the book.

Shakera Raygoza: I'm sorry?

MM: I'm saying that (um) all the, those are all the questions I had written down, but if he wants to add anything himself that could be in the book he can add it.

SR: You want to add anything about the history you have here? Any cool stories you have about your memories you have?

MM: (chuckles)

SR: Nothing you've found? Like all the snakes we've found too (laughs)?

AR: (chuckles) oh yeah.

MM: Oh, yeah, I think I remember this story right from the class, that you would capture snakes, spiders and that kind of stuff and bring them to the house. Do you still do that?

AR: No, because I haven't really found any snakes.

MM: ohh okay

AR: Now that it's getting cold.

MM: Oh, okay and (um) you're not scared of them? Like I would be, I'm pretty scared of snakes. I'm not gonna lie.

AR: They like strike and I get like a little bit nervous.

MM: (chuckles) And you just use your hands to get them?

AR: (umm) I use, Sometimes I use gloves and one time one snake bit me.

MM: Oh god, well you're a lot braver than I am for reals 'cause I would never do that(chuckles). I'm too scared to do that

MM: Okay, well thank you so much for doing this (um) I'll send a transcript of all this written down in case you want to you know edit it a little bit and (um) thank you so much for your time I appreciate it.

SR: You're welcome.

AR: You're welcome.

MM: Thank you, bye! Have a good day.

AR: Bye

Appendix I

Interviewee: Colin Cain

Interviewer: Stephanie De La Rosa

Interview date: November 9, 2022

Interviewee Location: Edinburg, Texas

Interviewer Location: Weslaco, Texas

This interview was conducted over zoom on the 9th of November of the year 2022. The interview lasted approximately 41 minutes. The interviewee was Mr. Colin Cain who is the Executive Director of Business and Rural Development at the University of Texas Rio Grande Valley. Mr. Cain works with Juan Raygoza and the center of Sustainable Agriculture of rural advancement. Based on his accounts he will be able to provide some information on what it is SARA does as a program and how the Raygoza's are involved.

Stephanie De La Rosa: Okay, yes...I want to thank you for being able to do this interview today, November the ninth, two thousand and twenty-two, as you may already know, you have been asked to participate in an interview for recording and preserving your experiences with SARA as part of the CHAPS Interdisciplinary studies class: Discovering the RGV. Whose final product and combination of efforts will be a complete study that will compare and contrast previous family reports of traditional farming operations to the urban farming of the Raygoza family and their family farm. Because of your knowledge in the South Texas community....

SD: The University of Texas Rio Grande Valley Library welcomes our opportunity to be a repository of these interviews in general, and as briefly discussed topics in this interview we'll cover SARA, the collaboration with the Raygoza's, and the impact on the community. Our hope is to provide a personable anecdotal oral history of your experiences that will enrich the local community providing further material from which researchers can draw from.

SD: And if there was, if there weren't any questions, we can get started.

Colin Cain: This is specifically about the Raygozas?

SD: Yes, the Raygozas and SARA.

CC: Okay.

SD: So, can you tell me a little about yourself and what your position and Job is with the University?

CC: I'm the Executive Director of Business and Rural Development at the University of Texas Rio Grande Valley.

CC: I'm also the co-director of the center of sustainable agriculture and rural advancement.

SD: And can you explain a little bit of what SARA is? What you do there? what the programs about?

CC: So, SARA is the center at the University. We are located in uh the College of Science. We're essentially the hub at the university that seeks to leverage the intellectual and human capital of the University for the benefit of rural communities and farming communities in particular, especially those that are ...we focus primarily on...

CC: ... sustainable farms, organic farms, small land-owning farms, largely Hispanic own farms uh in South Texas, primarily the Rio Grande Valley. And through that work... through that community engaged work we bring opportunities back to faculty and students at the university. We provide opportunities for community engaged research for faculty and for community engaged employment opportunities and experiential learning opportunities for students.

SD: And what led to the beginning of this program. What was the initial, like, inspiration for it?

CC: It came about from ...from my understanding, because it precedes my time at the University. I started working at the University in February of two thousand and nine, and I started in the small business development center. Um...and so basically, I ended up sort of like, ultimately moving over, but the but the center itself, from what I understand it was formed

CC: The center itself was formed formally when the two universities merged... right after they merge. Basically, programs that were under UTPA got merged with some sort of faculty activity to create a center. The center is a very specific designation that the University and University of Texas sort of systems has for certain types of entities within the campus, and they have, you know, certain status within the university, but from what I understand it, it basically all goes back to about two thousand two. When my predecessor, George Bennett, initially applied for a grant with with USDA to help rural co-ops in Texas, and they were primarily agricultural co-ops, but they were also focused on telecommunications, and in some cases like energy co-ops but focused on rural communities and rural counties

CC: That was the first sort of agricultural slash like rural development program that we have, and it's kind of has grown from there. I think the first one that focus specifically on farming, I think, probably started around.....two thousand and ten, two thousand and twelve around there, and then it's sort of grown from there to, you know. At this point we have twelve, twelve to fourteen employees. All focused-on agriculture and sort of rural development activities just under sort of my supervisory chain.

SD: And was that always the initial goal for the program to assist in the agricultural communities or farms?

CC: Yes, I think that a lot of it was. It was, I think it came primarily from what is now considered to be community engagement or economic development activities that the University does, and that is broadly sort of considered to be sort of business development.

Small business development helping businesses get loans grow higher. Higher Staff.... get like get investment, you know. Get loans, right? Business plans uh that sort of thing. And and that type of kind of community engaged activity. We ended up, I think, opening that those types of services to sort of the focus specifically on farms and farming, and I think that was so. So, the focus there was, you know, back then. The University was much more community engaged because it it like, this is UTPA days where it was less focused on becoming like a real big research unit.

CC: And it was more focused on. How do we improve the economy of our local communities. I think that was the focus post-merger after the university's merged, and the focus, and the mission of the university is really focused on, on, on research. And I kind of like bigger picture things about the university. That's when the center actually formed became the center of sustainable agriculture and rural advancement. And that's when this focus of okay, not only are we engaging with farmers and engaging with rural businesses, but we are....

CC: basically, discovering research opportunities that. Then we're bringing back to faculty, and then that those faculty are developing projects around some of those research questions engaging with students looking for external funding, Federal funding grant funding to in order to sort of study some of those questions. And so, it it it's sort of built on itself, but it started primarily as a sort of community development economic development concern.

SD: So now it's grown into something a little more.

CC: Yeah, like much, much better. It's focused also on on, on community health, you know, of course, like food and food systems are. Um, you know, very, very integral to human health. And in in in certain geographic locations. The valley is that is that kind of place where we have some of the highest levels of of obesity and type, two diabetes, but we also have some of the highest density of organic farms in the entire state,

CC: so, like there's a mismatch there between what type of food products come out of the valley and actually what food gets consumed here.

SD: That was actually information...I didn't know that.

CC: Yeah, there, I mean, the Rio Grande Valley is is one of the big vegetables, producing areas, certainly of Texas, and and in many ways of the entire country, and one of those one of the reasons why is because it's like it's counter seasonal. So, when...you know when it's the summer when it's the summer, you can. You know people can grow vegetables up in Michigan. They can grow them in Indiana. They can grow, and you know you can almost always grow in California, but uh, up north. But but when it turns cold that's when we can grow our vegetables down here, and so there's that there's that sort of we meet a demand that the rest of the country can't really serve, and because, you know, historically, the water supply from the river has been, has provided pretty good irrigation, and the soils here are, you know...

CC: ... There's good loamy soil that has lots of organic matter, because there's been lots of flooding right like the rivers flooded time and time again, and a lot of time that you know, has dropped sediment and and and different sort of organic materials into the soil that have been beneficial. For you know, vegetable growth.

SD: Um..... awesome, awesome. Um...what is there any other like programs that set out works with or like, or can you explain a little bit about the beginning Farmers and Ranchers project?

CC: Yeah, I mean I can, I can say, like broadly where our work kind of like fits would be into kind of three different groups, and then we have different projects that fit into those uh into those areas. The first one would be sort of hands-on assistance for farmers, and that a lot of times is helping, you know, helping people. You basically transition from backyard gardening to what we call like market farming or or market gardening, where they're able to produce more than they consume themselves, so they can bring that that surplus to the farmers market, or or sell it somehow to their community. They can generate some, some, some new income, and they're also providing.

CC: Excuse me, I'm drinking the sparkling water. They're providing some, you know, fresh and like healthy produce to their communities.

CC: Everything from that to, you know, helping uh helping sort of middle scale farmers actually sort of like go from, you know, from a few raised beds to half an acre to ten acres of production. And how do you actually scale that To How do you install, you know, hoop houses so that you can extend your growing season, or you can. You can protect some of your crops from wind and storm damage... So, that's tone that's like one third of the work that we do. Um Another part of the work that we do is helping those farmers form co-ops. I talked about our Co-op Development center. We...manage the Cooperative Development Center for the State of Texas called the Texas Rural cooperative center. It's a really cool, really cool project, really cool center. And...

CC: ... it's not just cooperatives, but agricultural cooperatives, but basically working with with smaller farmers, who, for example, if there are... people that raise goats right, people that raise goats around here in South Texas, like all over the place a lot of times. They're just, you know. People call them up and say, *hey, I want one or two goats* or something like that. But that's not a real way to like necessarily, uh, to generate a steady flow of...of sort of revenue for their businesses. But if if a bunch of...of...of...of goat, um, and sort of, you know. People that are raising goats form a co-op. They come together, and instead of just raising ten goats each, all of a sudden ten of them have one hundred. Then maybe they can start selling to a restaurant. Maybe they can start selling to a distributor up in Houston. We... we have...We specifically have a project on goats. You know people that are raising goats right now, uh specifically in that area. And so that's That's why that example makes sense. Um and sort of helping co-ops and...

CC: ...farmers in general operate cooperatively. It's not that they necessarily have to form co-ops, but there's a lot of opportunities it can be in marketing. It could be sharing land. It could be in purchasing equipment together, and then the third area would be um in

accessing resources. Uh, you know, loans government programs that are specific for for farmers uh access, you know.

CC: Um access insurance to apply for insurance. A lot of producers down here, I mean historically, have been discriminated against and blocked out of accessing Federal programs that are designed to help farmers, for, you know, decades and decades, and we have programs specifically designed to focus on on on producers that have been excluded from these programs. And you know to really focus on those communities and make sure that not only are they aware of the programs, but to help them apply. And then, if they're, you know successfully some of those awards to to manage that because it's It's challenging. The Federal Government is a huge bureaucracy, and you know it's hard enough for us to do it, and for someone that doesn't necessarily have a college education or um doesn't doesn't do this for a living. It's extremely hard.

SD: How do many of these farmers, anybody um involved in the industry find out about these programs?

CC: I mean, we're you know. I would like to think that because we do a really good job marketing, but I know that that's not true. I think that you know we we have traditional forms of like outreach, which which would be a lot of word of mouth. I mean a lot of how we operate is, you know it's not like the biggest community in the world, the farming community. And so, a lot of people sort of like know that we exist or know about individuals who work with us, who are our staff members and what they can do, and that kind of you know that that message is spread that way.

CC: Of course, we have a website, but the website is, is probably not our our strongest uh uh asset right now. We... do fairly well on social media. Um, you know, Facebook is maybe not the best place these days to reach out to people younger than like thirty years old. But for farmers it's definitely the the sort of preferred social media site. So, we do lots of outreach on, you know, on Facebook and on Youtube a lot as well. We have a lot of subscribers on Youtube.

We push a lot of content out out on Youtube and people a lot of times find out about us that way, but we also get get get referrals from you know, partners, partners that know where we are and what we do will refer clients to us.

SD: And how did you come to meet Juan Raygoza and learn of his project Terra Preta?

CC: Juan and I have been colleagues at the University since...since he started, which I think was probably around two thousand and eleven, two thousand and twelve and yeah and basically Juan, and I have worked together at the University for at least, you know. Ten years, I would say, and you know I've supervised them for some of those years, and you know we become friends during that time, and in, you know, and I know his wife and I. I know his family a bit, and you know I think it's just just through through working together and through having conversations. Do I, you know, mostly know about about his farm, but it's very important for us that there there is a firewall between, you know Juan, UTRGV Juan and Juan the farmer for... for Terra Preta, because, you know, we work with farmers, and you know, if it's a...

CC: ...you know it's a kind of situation where where there would be the potential for conflicts of interest. And so, we have to make sure that when one is working at UTRGV. All the way. But I'm very familiar with their farm and what they do over there. I mean, they're really critical pieces of the local food system.

SD: And what do..., and what does their project do in relation to SARA? As you were saying...

CC: I mean not much, I mean, in terms of their farm right. We try to like, I said, like we try to keep a firewall, so that there is not any any particular um claim of conflict of interest, and that's something that the University has made clear that the that we need to do so. Uh, you know we support them. Uh, we we absolutely, you know, wish them the best, and you know, of course, I think that there are times where where we have. Um. We have supported projects that they've been involved in in particular. Um, I think Terra Preta was one of the members of a FFC, The Fronteras Farmers Coalition, which was working with with DHR, and that was a project that we that we supported a lot, but not directly through their farm because of the conflict of interest, but but to that, to that cooperative, and how to set up benefit from projects like that.

SD: And how does SARA benefit from projects like the Raygoza's and working with other farmers?

CC: I mean, I think, that we gain... I mean overall we gain by working with with projects or clients, or however, you want to talk about it like like like Juan's like Terra Preta, in a variety of ways, I mean. First and foremost, our mission. Our goal is to to grow the sort of sustainable farming community and and food system here in the Rio Grande Valley. And so, whatever partnerships and whatever enterprises are out there engaging that kind of work like their success is our success, and you know we don't necessarily want to like, take credit for the work of others. But if they're if they're doing a great job, and we can sort of even make a marginal improvement in their....

CC: you know chance of success, then that's like a huge, a huge win for for the community for the RGV. Overall, and then and therefore for us, you know. Oh, like otherwise, I mean they not not Juan but Shakera Raygoza. So, Shakera has started Sentli. I don't know if if she's talk about Sentli with you, but that's a nonprofit organization that is working on some of these sorts of broader food access and food supply issues, and they have a multi farm. CSA um that they that they're managing there, and we are partnering with Sentli because that is like there.... There is not a conflict of interest there, because Juan is not involved at all, and Sentli is a very important partner of ours across a few projects that we manage. And so, you know what's in it for us is really...

CC: growing the food system in in in the in the Rio Grande Valley, in a way that improves health and improves uh environmental and financial sustainability for these farms, so that they can keep farming and do what they love to do, because it's a an extremely challenging operating environment, like...

CC: farming is not something you necessarily get into, because you want to make money unless you already have a lot of money, and you can buy lots of land like. The only way that

you can make tons of money is if you have lots of land and you have scale. But if you're like a small-scale farmer, you're in it mostly because that's what you believe in, and that's what you love doing.

SD: And throughout these projects what uh, what has been like one of the things you've learned about either the region or struggled in agriculture, and how the community inspected you. You have spoken about some of the.... issues with um...with the food system, and....so I know you spoke a little bit on it.

CC: Yeah, there's I mean, the struggles are many. I'm sure it depends on who you talk to. You know it's again. It's not something that people can necessarily do and make money doing very easily. It takes an extremely strong business plan, and it takes a real work, ethic and consistency to even like break even. And...and even then, there are so many different external variables that can cause a farm to fail, or to have, like one bad season, two bad seasons in a row, that it's just It's a very, very risky endeavor, and when...and when a farm goes down. When a local farm goes down. When a a a supplier of local markets goes down, I mean what's lost. There is.... a real connection between a real like local cultural connection like eating food that is like this is a personal belief. This isn't like a scientific fact.

CC: The connection between you like that that is formed when you are eating food that is grown by someone that you know that like lives within, you know, driving distance of your of your home, I think, creates a sense of place and connection and pride of place that is really really hard to quantify, but it's extremely important, and I think, especially in places like the Rio Grande Valley. I'm not from the Rio Grande Valley. I'm from up north, I'm from New Jersey originally. I've lived in Texas for thirteen, fourteen years.

CC: so, I can't speak on this, you know, as a sort of valley native, but especially in a place like the valley where people have grown up with a certain association with agriculture. Almost everyone that that, like I work with, who is from the Rio Grande Valley, grew up working in the fields, and that those aren't always positive associations, then that people have with farming right um. And so, when they see one when they see a Shaker. I go. So, when they see Diana Padilla and and Saul.....at Hope farms out in Harlingen, and these other sorts of local organic farms, when they see what they're doing, and then they can bring their family to those farms, and they can go out and and talk to these people, and they can pick vegetables. It it it changes, I think, a mindset that people have not only associated with farming but associated with the food and understanding where that food comes from, and it makes eating fruits and vegetables cool. But it also, I think, builds a sort of sense of pride, of like, what where you live, and what's good about that..place in.....gives people other people, you know, reasons for why they would want to live here, and especially when when so many people in the valley like really like, as soon as they like graduate, want to leave the valley to have a sort of a real kind of strong local culture and connection to the place where you live. If that's what you do. I think that that's like the value of that is, is, it's like immeasurable to me.

SD: I was...I was the same way, like the moment I graduated. I wanted to go, but then, when I left, it's like..... uh it gave me perspective on where I was coming from, what the value it represents, and everything that it is. So now, as I'm older, I'm thinking about how like growing up. I certainly like it, being being surrounded by agriculture. And yet a lot of

food...being consumed...was from different places, and not from here when here there is um. There's always been, I guess, a large production of certain um produces and stuff like that, so I that was always kind of like a question I had. Well...kind of what we were consuming, where it was coming from, where the food from here was going it....yeah?

CC: Yeah, that I mean that those are all right and part of the thing part about having is like farms like Terra Preta, if they can supply.... either through farmers markets or through CSA, or through other means. They can supply directly to consumers down there. Then that products don't have to go up to San Antonio doesn't have to go up to Austin doesn't. Have to go up to Dallas and then get shipped back to the valley to be consumed, and that that saves you basically that you know what you know, that essentially saves packaging. But that really saves saves gasoline. That saves that is like, has a lower like carbon footprint as a result.

SD: okay, and...discuss seeing the different programs with setup different groups. What was the response towards the program? What has been the response from? I guess farmers and others within the community? Was there any head? Its hesitancy to getting involved in the program, since it is tied to a university or...?

CC: yeah, I mean, I think the the response varies widely. I mean, some people are like wait for you. Some people don't believe that you know a lot of a lot of people are surprised at the University. Does this kind of work quite frankly. Um, you know a lot of people Haven't heard of us, because again we don't do the greatest job of necessarily marketing ourselves. Um... and you know. Part of it is who, you know. If there's a need, there's an express need. A client, a producer is saying, hey? Like I have been making. For example..... we've had you know we have a client that has a ranch, and they have nothing but mesquite on their land, and...in their minds are like, what can we do with this mesquite? So, they started like researching, and they realized from that mesquite from the pods themselves. They can make food products from those, and they can make flour. They can make jellies. They can make coffee and teas, and like different what we call value added agricultural products where you're not selling the beans themselves. But you're selling something that you do to the beans so that you're adding value. And you're making extra money through the processing.

CC: And so, they had a need right, and then they were referred to us...and so it's not that they were surprised, or whatever they were there. They just didn't know we existed, they had a need, and then we knew that we could help them apply for certain programs, get access to capital to grow their business, and they've been one of our most successful clients down here. They've been highlighted, like all over the places, you know. They're really, they're developing really cool products out of out of like native native species down here that people think of as as sort of pests, you know, like people look at mesquite as charcoal...

CC: only, and otherwise as as something to be torn down. But these guys are thinking, are changing the kind of perspective of it. So, for a client like that, if you match like, if they're coming to you with a need... and you can serve that need. Then it's just like It's nothing but like a good a a good partnership. If people don't know what we do, and then we're just telling them what we do. Uh, you know you get a wide variety of of responses and a lot of times. It depends on who the messenger is, you know, if it's, if it's me, or if it's Juan, or if it's, you know Aisha Cruz Reyes, or if it's Annalise Lottman, or if it's Cruz Salinas, it's a lot

of times. It's it's it's already matching. Who is the person saying, hey, this is us? This is what we do with...

CC: who those clients are and who they're comfortable necessarily like taking those messages from and and just understanding that because not everyone's gonna gonna to necessarily trust you, especially in agricultural world, where people hold their cards really, really close to the you know, close to the vest. They're not always.

CC: You know, a lot of times there's a lot of like suspicion of like, you know. *Are you? What are you asking? Why are you asking me questions?*

SD: And how do you like go around that suspicion or try to convince?

CC: I mean you just. I think it first from person to person. You just try to be consistent. You don't you don't try to push too hard. You try to go back to that if you have a need, then there's a possibility I can help you, or like a challenge or a problem that you solve that there's a chance that we could help you solve that if that problem gets high enough,

CC: and you don't have another way to deal it. Maybe you'll give me a call. Maybe you won't, but you leave it up to them um, but otherwise I think it is that that like, let's say, you know, we have a few projects that focus specifically on working with like colonial [COLONIAS] groups.

CC: You know Colin Cain is not from the Rio Grande Valley. I speak Spanish, but you know I'm not a native Spanish speaker. Um, you know i'm not necessarily the first person that you want sent to the colonias, because, like it's, it's not that... that I'm not necessarily the best messenger for for some of the stuff for certain presentations and for certain information I am, but but it it's really, it's it's it's understanding like, Who's the client? What do they need? Who are they more most likely to trust, and and and being consistent, and making sure that that that we are providing information about about what's out there, and what's possible, and that you know not push too hard, and that when they feel like they have project, or they have a challenge that rises to that level, that they'll reach out to you.

SD: And does, you know the center have, like a specific goal in mind that they hope to reach, or hope will happen in the future due to these programs?

CC: I was mentioning. We have those three different sorts of areas that we work in. Each of those areas has specific, federally funded grants associated with it, and all of those grants have very specific metrics tied to them in terms of it could be numbers of individuals worked with. It could be numbers of of businesses or farms created over certain period of time. It could be a number of farmers that have...that have gotten like sort of farm purchasing loans for the first time. And so, there's a lot of those kind of like client-based goals.

CC: um in terms of like what the long-term like goal of the of the University of of the Center in terms of the University in terms of the community, is, you know, on the community side. It would, it would essentially be to...you know, elevate, sustainable small to medium-scale, sustainable farming throughout the Rio Grande Valley, and provide

support to to an extent where it it's, it's just as as profitable and as feasible to farm here in the Rio Grande Valley as it is any other place in the rest of the country which has not always been the like, been the case for sort of lower resource farmers.

CC: Um, we want there to be less of an um of an impediment to farming just because you're in South Texas. And just because you're not necessarily a sort of Caucasian farmer that you know that is.

CC: But it's farming in Nebraska, or something like that. Right? That that that's that's a big part of it. Um, we want to make sure that that these services are offered to. You know people across the valley. It it doesn't it doesn't matter what... you know, what what race or ethnicity people are, we have certain projects that that that focus in in certain areas. Um, of course. But um overall, we understand. We serve the Rio Grande Valley. We understand what the demographics of the Rio Grande Valley are, and you know, South Texas. The Rio Grande Valley in particular, is as the highest number and the highest density of Hispanic farmers in the entire country. And so that's like primarily, who we serve.

SD: mhm...and what would be any obstacles that would stop...the center of the program from.... I guess, supporting these farmers, supporting the community.

CC: I mean, I think a lot of times it's financial support, you know. That's a lot of my job is making sure that there's consistent access to funds for for our programs. And so that's you know a lot of times that's determined by the Federal Government, or it could be determined by the University whether they want to support what we do. And so...

CC: We do this work um, you know, with the blessing of our partners in the Federal Government and of the University of Texas Rio Grande Valley, and when they no longer want us to do that work, then we won't be able to do it anymore. So that's a real challenge. I mean other, I mean in terms of challenges to farming, though I mean there are. There are legion, say you know, first and foremost is climate change.

CC: Ah, everything that is that is happening, you know, across the country and across the world. But specifically in the Rio Grande Valley. What's what? What's what's happening to access to water is is a real like clear and present danger for um for farmers. Um, you know the you know the this not just the aquifers, but you know, access to water from the river, it's really limited, and if there aren't um you know, if situation doesn't change, it's going to be really hard for farmers to be able to get irrigation water consistently, you know, in the future. And if that happens it's just you know it's gonna...be an incredible challenge.

SD: Mhm...and are there any current policies in regard to agriculture that have helped or provided obstacles in the sustenance of organic farming. In the...

CC: Can you repeat that

SD: Provided obstacles in the assistance of organic farming in the Rio Grande valley?

CC: I mean organic farming is a very particular thing, right? And it I mean organic, you know. Organic certification would be the policy there. Um! And you know that has its pros and its cons for small scale farmers I mean the smaller you are the harder it is to apply for and manage organic certification. So, I would say, the organic certification process itself is its own. You know it's great because it exists, but it's only worth it. We're sending me because....

CC: it is really designed for larger farmers. Um, and you know. So, it's sort of discriminates against smaller farmers, because it's just really, it's much more expensive for them to do, you know, as a percentage of their total business. Um... you know, I think that a lot of times we think in terms of like scale, of like larger farmers, you know, hundred acres or more versus uh, you know, which are our clients are, you know, ten acres, and below, for the most part, but we have certain clients that go close to one hundred acres. Um, you know. The smaller you get it's, you know, whatever regulatory um systems are put on. Who can sell? To what type of institution or client, under what guidelines always end up discriminating against smaller farmers ...lots of food safety policies, which are really important in terms of making sure people don't get e coli um. They don't get sick from their lettuces and from their vegetables.

CC: A lot of times those are implemented in ways that again make it really really hard for smaller farmers to to to access more lucrative markets. So, when I say more lucrative markets, it's it's selling to HEB. It's selling to school districts, which is that's a lot of times where we're trying to get people is to move from just selling at at farmers markets to sell through a CSA to sell through a CSA, and then maybe distribute, you know, uh participate in a farm to school program or something like that, where you have various, you have different revenue streams. And so, if one thing goes down you don't lose your whole business.

SD: alright...and we'll continue.... continuing about growing and expanding the program. Oh, is there any plans to, I guess, expand further than the Rio Grande valley, or is just something that is here in this region?

CC: Well, we have different programs that have different geographic regions. So, something like I said, we have those three different areas. Within those areas we have different projects. We have different projects. All of our different projects have different geographic coverage areas. Our project with the largest geographic coverage area covers the entire state of Texas. We have multiple projects that cover from the Rio Grande Valley up to Val verde County. You know Del Rio up there all the way up to Austin, over to Corpus and down. We were just awarded a project that goes all the way from the valley up to you know East Texas, and pretty much all of all of East Texas. And then we have others that focus specifically on four counties of the Rio Grande Valley. We have others that focus just on Hidalgo County. We have another one that's seven counties, you know. It's the four Valley counties, and then just the adjacent ones right above.

CC: Um, yeah. So, it it really depends on the on the project itself. And you know, I think that ultimately we're always going to focus on the valley because we are part of the, you know, University of Texas Rio Grande Valley, and the mission, you know, in our work has

to align with the mission of the University, and if there's a misalignment there. Then we're not doing our job.

CC: But at the same time there is an opportunity for us to basically, elevate The University and the capacity of the University to do work, not just here in the valley, but throughout the State and other parties of the country that share that share certain uh characteristics with the Rio Grande Valley. I mean, we're one of the leading, you know, non-Land grant universities in the entire country doing this. This type of work focused on these types of clients. And so, you know, there's a lot of lessons to be learned.

SD: Mhm, uh, and after working with farmers like that. What do you think the future will look like in reference to working with current and future farmers? Is there a certain like set this time span of of how long you will help like support the farmers? Or would that go on?

CC: How long would that I mean ultimately like? You know the goal is for someone not to need our services anymore. That's ultimately like where we want to be, and it depends on you where the client is when they first start working with us, and and what their trajectory is. But ultimately, it's about capacity building. And if you're good at your job in your building capacity, then at some point, someone's capacity is built, and they and they and their needs might be more specific than like you can actually dress, or might they might have to go to someone who's more of a special, you know, has more of a specialization in an area that we don't necessarily cover...

CC: But you know we have certain restrictions in terms of like we can't just do the same thing with the same client over and over and over there has to be a sort of growth, or a projection.

CC: So that ultimately clients are supposed to be self self self-sustaining, I mean it's in the words sustainable itself is sustainability isn't long-term subsidy. It's ability for a farmer to sort of be able to plan, execute, and then sort of reap the benefits and work within a community a way that is like mutually beneficial and can continue in the long term. And if we're, you know, if we're not contributing to that, then we're not doing our job.

SD: mhm, and what do you hope, others who are learning about SARA, and the the different projects and groups, take from this interview?

CC: Um, I don't know. I mean, that like. I think that I would like people to know that this is something that this is work that happens at the University, and it's really really cool. Work it's it's very mission oriented.

CC: It's, in some ways very progressive work, but it's. Still, it's a real cool combination of sort of community engaged mission-oriented work that is still about like business development, and there aren't many times this there there aren't many opportunities to get involved in that type of work. Um, and especially in the valley, there, aren't tons of organizations like you have in Austin. You go to San Francisco. You go to New York State. There are tons of organizations and nonprofits, and...

CC: ... you know, places doing this kind of work. You know, in South Texas there are fewer of them. But I think that in you know, at SARA we have started small, and we've grown. We've grown considerably, especially over the last, like five, five or six years, and I think that the impact that we have in the valley and the potential for those work overtime it's extremely exciting, and you know. And so, if students want to get involved, if students want to work with us. We have employment Opportunities, if faculty are interested in, not only in agriculture, but in issues that impact rural communities. We have connections with with rural communities, you know, municipalities, community groups, church groups, you know, like up and down uh throughout throughout Texas, and especially South Texas. So, we are a really good sort of partner for faculty, for students and for this type of work.

SD: And is there any changes you hope to see in the future, in regards to agriculture, the industry, I guess policies and things that could possibly change?

CC: I mean, I think the food system is, you know I'm not necessarily a policy expert in this area, you know. I think that you know. Talk to a lot of people. It depends on what on what they know, on where they exist within the food system. Uh, but a lot of people would say that the US Food system is broken, and or is at least partially broken. And you know some of that was uh was sort of borne out during the pandemic where...

CC: you've had consolidation. You have corporate agriculture that just becomes consolidated. So, there's only one provider of one thing and so the supply chain is extremely concentrated, and if there's a failure in that supply chain all of a sudden Um, you know, dairy farmers cannot get their milk to customers. Um, you know vegetable producers, or you know, pork producers, Chicken producers can't can't get those products to students that are hungry, and they depend on, you know, subsidized meals, meals in the morning. Um. And so, having a more distributed and local food systems to sort of support, you know. I'm not saying that that's going to replace this sort of large-scale food system, because you know that's built up and that's not...going anywhere but investing in and valuing local food systems and distribution systems and value chains that exist from farm to to cold storage to distribution, to processing um to sort of, you know, retail and like actually getting food into.. into people's bellies. Um, making sure that, like we are investing in those local and regional food systems in real fundamental ways is a very important step for out for the USCA, and I think for the State of Texas to make You know, I think, that there are lots of debates as to whether that is happening. I mean you can. You can certainly see that certain changes are being made. But um, you know i'm sure it's a little...it's a little slow for certain people.

SD: All right. Well, that was the last question, and I just want to say thank you for your time. It was greatly appreciated, and it is appreciated by our entire class. And just now I'll um. I will be transcribing the interview afterwards. I will be sending it to you for a final approval in the case of anything that if I need to...

CC: If I need to redact anything, can I? Can I reject it? Okay, I don't think i'm going to have to. But I But I would. I appreciate the opportunity.

Appendix J

Interviewee: Imelda Moreno

Interviewers: Kate G. Purdum, Hector Rodriguez III

Interview Date: November 4, 2022

Interviewee Location: San Antonio, Texas

Interviewers Location: McAllen, Texas

Today is Monday, November 4th, 2022. My name is Kate Garcia Purdum, and my name is Hector Rodriguez. And we are students at UT R G V in Edinburg. We are here today with Imelda Moreno conducting an oral history interview for our university class title, discovering the Rio Grande Valley as we research the Raygoza family and Terra Petra Farms and their farming family legacy in Edinburg, Texas. Let's begin.

Kate Purdum: All right, so what are your parents' names and where do they and where were they born?

Imelda Moreno: Okay. Okay. They, I'll tell you, just let see. I don't have, it looks like I don't have your email, Kate. I'm going to send them to, I'm not going to try to do that while we're talking. Unless you want to see the documents when we talk, would that help?

IM: All right. So, their names were Lauro Pedro Munoz and Gertrudis Reyna Munoz. And I have pictures that I'm gonna send you of that, a picture of them, what else? Did you want their names and their date of birth?

KP: Yes.

IM: Okay. So, my mom was called Tula and her birthday was on Valentine's on February the 14th of 1918. And my father was called Lalo, and his birthday was October 19th, 1922.

KP: And when was your birthday?

IM: And My birthday is September 12th, 1948.

Hector Rodriguez III: Where were your parents born?

IM: So, my mother was born in Edinburg and my father was born in a ranch just outside of Edinburg and I, I usually remember the name and I can't, but it's a little ranchito, but they moved into Edinburg in the forties, like before the war.

Now my mother's family, she was the first generation born in Edinburg. They were from across the river, across the Rio Grande, her in a little, not in Reynosa, but like in a little community outside of there back in the day. And so, her parents got married and moved to Edinburg and then had all my aunts and uncles and my dad's family was in that ranch area outside of Edinburg since before Texas was Texas. So, they were there when it was Mexico, and then they stayed when it became Texas.

IM: That was, that was the story, trying to get out of my aunt. I kept asking her in English and in Spanish, and it's English and in Spanish, and she kept saying, That's where we're from. And I'm like, But before, and then she goes, That's where we're from. I went, Oh, when you moved? No, our family was always there. Okay. Never mind. Yeah, so it was, it was really cool getting to know that information from her. That was my dad's oldest sister. Okay. So, dad bought the ranch after World War II with his VA money

IM: And at the time, the records show that he was living in Edinburg at my grandfather's house. So, my grandfather's house still is standing in Edinburg. It's at 219 North 13th. Okay. Let two 19 North, 13. And it's still there. And the, the interesting story about that is that that house was at the ranch, like where my dad was born but, my grandfather was also a carpenter, and he took it apart and rebuilt it in Edinburg on that spot where it still is.

HR: Yeah, it is. It's crazy.

IM: Yeah. Yeah. And so, on the deed one daddy that I have here that shows that dad bought the, the ranch, where is it? It shows that his address is at 219. Oh heck, I erased it. Tell me. All right. Right. Okay. So, what was the other question?

HR: You actually answered multiple questions on that one, but that's fine. Let me shuffle through the list here.

HR: How about, how about you? Where were you born?

HR: Were you born, like on the, on the land you family owned or like in the house?

IM: I was born on Fay one of the questions you all had was, did I ever live on the ranch? Right? No, we did not. So, what happened? So, dad bought it, like before I was born and before he was married, right? The year he bought it, I think like in 48, 46, I mean in 46, right after he came back from the war. And they, what happened was in 1980, so he bought it in 46 and we lived in town the whole time that he owned land. We lived on Fay Street. And in 1980 I got in on it and I got there to move the house cause our house was wood and it could get lifted and moved. So, we moved to the house I was born into the ranch.

IM: We called it the ranch, not the farm. So, we moved it out to the, what we said was the country, which is now in town. The property is now in town, but when it, when we bought it, it was considered out of town. Right. And moved that house there and built a house on Faye, a new house on Faye for them to live in because mother wanted to stay in town and dad wanted to go live at the ranch. So, I finally said, well you can have both things. And so, we did that. And so we did have the house out there in 80, but even before 80 we would have celebrations out there at the ranch cause he had another little like house set up and there was always water and electricity out there. And I have pictures of the... what it looked like when we would party out there. And I have pictures that I'm going to send you of like the cattle and the horses because in the first part when I was little it was wild land and dad cleared some of it and he had animals that he raised for his own pleasure And we would spend weekends out there a lot having barbecues and with the family and when there was special occasions, everybody would go out there. So, I have a few pictures of that.

HR: Okay. So, then the land your, your family owned was a ranch. You guys, you, you didn't cultivate anything?

IM: We called it a ranch, but dad was not a farmer, so he had it with some animals and he had it fenced in and all of that for a good while. And then he finally got rid of all of that. It was a lot of work, and he did like lease it out, but I don't believe there was an exchange of money. If there was, it was minimal. But he had a farmer farm it, so it was farm in the, maybe like in the sixties. Okay. It was farmed. And I remember going out there because we still have access to that, there was a little place kind of on the west side, you know, on the east side of the property. That's where we could drive all the way to the back and there was an area back there and that's where we used to like to spend the weekends. And I remember that there was cotton at one time, I remember there were tomatoes and I remember corn and they would, the farmer would do the whole 20 acres, all the same, you know, different ears. He would do different things. Right. And it was the same guy, but I don't know his name.

HR: Okay. I was about to ask you; you happen to remember his name?

IM: I don't know his name. And so, we never did have workers or any of that. I knew that was one of your questions. So, we never did have that either Daddy and my brother would take care of it when they had animals or we gave it, you know, turned it over to this man farm it and he did his own thing.

HR: Okay. With the animals, did your dad ever, you know, sell 'em or did he ever get anything? So

IM: Yeah, I'm sure that he did. It wasn't his business. Dad had a job, he worked for the post office.

HR: Okay.

IM: So, it wasn't his business, but it was like he loved animals. He grew up on a ranch with animals. And so that was just, he loved horses in particular. So, I've got pictures of him and my brother riding and with a little baby horse that, you know, he got one of his horses that have a baby horse, whatever you call it, a little pony, yeah. So that was more just for pleasure. But yes, I know that, you know, after a while you had to just sell 'em. The animals got big, like the cattle. And I know at one time, real early on when I was really small, he had pigs and a pig pen. In addition to the cattle roaming, the cattle would roam the 20 acres and the horses, but he also had a pig pen. But all of that was just like a hobby for him. It wasn't a business.

HR: Oh, okay.

HR: So, when the farmer came in that was leasing the property from your dad, he Yeah. There were no more animals on the, on the farm, Correct. On the ranch, sorry.

IM: Right.

HR: Okay. Just making sure. Now So you, your father served in the military, What do you know what branch?

IM: Yes. He was in the army, and he was a medic.

HR: Okay.

KP: How long was he in service for?

IM: He went during World War ii. And I know he spent time in Italy in his service. And I know he came home to the hospital. He came straight to a hospital. Dad was a medic because my dad was, before it was a term a medic, a pacifist, he, he wasn't going to go kill anybody, so he became a medic. And he was so good hearted that he got ulcers serving because he served in the front line as a medic. So, I'm sure a lot of guys died. Yeah. And he came home with a busted ulcer and went straight to the hospital, Vet hospital in Corpus. And that was way before I, that was before I was born. And before they were married because they didn't get, my parents didn't get married till they came back, till he came back from the war.

HR: Okay.

KP: When did your father purchase the property?

IM: So, he purchased it in 46 and he purchased it in 46. But the only, the earliest paperwork that I found was that for a contract of sale, that was March of 1954. But I did find, let me see, I know I found something in, for some reason I can't believe it, it seems like I deleted it. But I have the originals in the safe that I can go get Again, it looks like the one that I was telling you that had the address where when he purchased and it showed he was living at my grandparents' house I think that's weird, but I can't find it.

I, I know I edited the dumb things cause I took two pictures of the same thing and I think I deleted the wrong one. But anyway, he bought it in 46 and I don't know, I remember him saying that it was like a quarter an acre, but that can't possibly Right. Because in the, the contract of sale that's dated in 54 says that it was for \$6,500

IM: And that it was 20 acres and that it was paid in full in 1988. I have that paperwork and I have an abstract of title that's dated in 1978, and then another paper that shows the value at the time of my father's death, which is when my mother inherited it. And at that time, it was 44,000. That was in late 1999. So, the paperwork that I show also gives you like the deed numbers and stuff at the county courthouse that might show the original value.

KP: Were there any family gatherings with your neighbors or?

IM: Yes, a lot. Yes. We would celebrate out there all the time. As, as a family and maybe just with some cousins, lots of weekends. But I know I have pictures of like one celebration and it says on the back that it was my parents' 30th wedding anniversary. So, the whole family is out there, and I have pictures of them. So, you'll be interested to see, you know, how people were dressed back then, and you know, the ranch were hot, and you can see a

table with food and all the men over here and all the women over here. So, I have some of that.

HR: Okay. where did you guys have like some were to host the parties like, I don't know, maybe *un techito* or, Okay.

IM: There was, there's a, you can see in the pictures there's a little like, like a shed that daddy had out there from the get-go and a Coke machine and stuff like that. And because I know this party was in 77 and we didn't move the house out there till 80, but there was some little house out there. I said, I have a picture of it but I know that wasn't our house. So, he had a house out there. I have a picture of it that I can send you.

HR: Do you know more or less where the, where that little house is located? In the back of the truck?

IM: Yeah. Okay. Yeah. Well maybe this is the house, so No, it can't be because I know that we didn't move the house until we built the new house. We didn't, Anyway, so yes, when we, when we moved the house from Bay, the house I was born on when we moved that it was at the front of the property. It's kind of like where the Raygozas are living now. it was kind of, there was right by the, we had a gate and then you would come in and the house was right there and that's, that's that house. But the party little house was, remember I said there was a road on the east side of the property that went off the way to the back. And that's what I remember that that little house is back there.

HR: Have you been to the, the property recently?

IM: Yes. I mean, not since Covid but I used to go down pretty often until my mom passed away in like 2012, I think is when mom passed away and that's when I inherited the product. It went to my mom when dad died in 99. And then when mother died in, I think it's 12, that's when I got it. And that's when I met Raygozas.

HR: How did you meet the Raygozas?

IM: Okay. It was an interesting invention, and it took a while. My, so when I got it had been my mother's homestead because of the house that was out there. We had established that as my homestead, their homestead because the house we built on Faye was mine. So that was their house, you know, even though they lived on Faye legally, that was their property legally. And they were just living in my house. Does that make sense to you? Yes. When pulled the house, I built them a new house. and I built it under my name so that I would pay the mortgage. Correct. And so, then they ended up establishing the house at the ranch as their homestead. So, because it was being farmed at that time, I think it was farmed up until maybe until the eighties. I think when the pictures that I have of the barbecues in 77, it was still being farmed by the other man, but we had access.

HR: Okay.

IM: Or maybe not. I'm confused. It might have, let's see. Okay. One of the questions was when did I graduate? I graduated in 66 and I think, I think it, it had stopped me, I'm not sure

when it stopped being funded because by the time I inherited it, it was moed again, the whole 20 acres was brush right. Heavy, heavy brush. And so I remember by the time I got it in 2012, it had been at least 30 or 40 years that it had not been used. And so it was heavily, heavily, you know, messed up and so I contracted two different people to help me clear it. But back in then it, nobody does that work anymore. Right. Nobody clears land anymore. And the reason I ended up finding one was because when I inherited the property now, it was no longer a homestead for my mother, elderly mother.

IM: And it was no longer out in the country. It was now in town next to the junior high. Yes. And the elementary. So, if you can imagine the property taxes I was going to pay and I'm like, that ain't happening. Like there's no way I can do that. So, I went to the landlord board or whatever it is where you go to the taxing. And they said the only way I could lower my taxes and lower them significantly was if I turned it into a farm or a ranch. And I said, Okie dokey. So that's when I started. And so, they gave me a waiver cause they understood and they gave me a waiver and I think I ended up having the waiver for like two or three years because it was so difficult to get it clear and so they would give me an exception.

And in that process, I decided that because the land had been followed all that time, it would make fabulous organic farming and because it was next to a school, I didn't wanna have pesticides there and then end up hurting the children next door. So, this was just like a fantasy that I wanted to do. And so, I started looking up organic pharmacy in the valley and there weren't many. And that's how I found one. And I met with him, and I showed him the property and it was cleared but not like I had gotten it totally rid of the trees and I got rid of most of the brush and stuff, but the trunks, they left a lot of the trunks of the trees, and you know, it was, it wasn't level, it was a mess. It was a big mess.

And I showed it to Juan, and I said, "Would you be interested in farming the land?" And I told him the story of it and he was like, Oh my God, it's chemical free, you know, and it wasn't mixed to anything that had chemicals. And so, he got interested and, but he, you know, he said, But I can't buy it from you and I'm already farming in this other little place in Edinburg. He had bought some acreage. So, for a couple of years, he helped me clear it with him and his friends and try to get it ready for him to maybe be able to use it someday. And he did all that and because of him helping and doing all that, I kept getting exemptions from the tax age people. And so, I was paying, you know, taxes but not at the Edinburg city rate.

And finally, we were getting it in really good shape, and he was really interested in working it. And our agreement had been, you know, when you can get like a certain amount of acres ready, you know, I'll just, you, you form it and there's no, we won't exchange any money, you're gonna do that so that I can get the tax break. A certain amount of acres had to be clear, you know, farmed or something. So that was our agreement and that's kind of how we started where he was gonna, he was helping me out because he was gonna eventually farm it because he really wanted to and I really needed it and we were just not gonna exchange any money for it. It was like a win-win. So that's how we started. And then finally when we, we thought that was gonna work, but then they wanted to build on the property they wanted so that they could sell their other property and now live here

And so all that was a long story with the city, and they wouldn't allow them to do it unless it was their property and blah da da, you know even. And I said, I'll sign anything that says you can have, you can do that, and it'll be yours. But no, that wasn't gonna cut it. So that's when we said, well you know what, I'll sell it to you. I said, and they go, well, we can't afford it. I said, "Well I know, but we need to do something." And we worked out something where its owner financed by me. And they're buying it from, and they really have put a lot of work into it. When I gave it to them, it wasn't leveled yet. And but they did a lot of work to get the farming part going. And then they were able to, once we, you know, to for, you know, legally turned it over to them, then they started being able to get grants and things to help because they're young.

organic farmers and they are really go-getters and know how to find and he was teaching part-time, I don't know if you know that, but he also was teaching organic farming at PanAm. Oh, wow. And so, he had resources in terms of knowing what's available to organic farmers and so they applied and got different grants and different loans and did a lot of more work improvement. And then they built the house and they've got their own their own little garden going you know Shakira just is amazing. So every kind of route on the property and now they're doing what my dream was, what Wawa and I had talked about this dream when we first, when he first helped me and we first were talking about it becoming an organic firm, we both wanted to include the school next door, you know, and expose the kids to a real firm with food from the coming from the ground kind of a thing. Cause I'm an ex-teacher and they're doing that now. They, they have contracts with a lot of the schools in Edinburg that I know of in Edinburg knowing them by now, they're doing other people too, but they bring elementary classrooms to out to the ranch and they, you know, show them the whole thing and they show them all the animals and all the, they let 'em plant things and they let 'em pull vegetables out of the ground. And it's just, I mean, I couldn't be happier.

HR: If you don't mind me asking, how, how much did you guys agree on for the property?

IM: Yeah. We agreed on \$15,000 an acre, which was the going price for the place of pro or maybe it was a little less the, you know, there's a lot of acres. I don't know if you, you've been out there,

HR: Right? Yes, ma'am. Recently, we, we just spent some time out

IM: There. Okay. So, across the street from us there, there was a, like a more of a like minus 20 acres and maybe that was like 60 acres and that one was up for sale when we were negotiating when Juan and I were negotiating. And so, we kind of took that price and lowered it some. So, at \$15,000 an acre is what our contract is for.

HR: Okay. 15, 1. 5. Right?

IM: Correct.

IM: 15,000. 15,000. So, it's 300,000.

HR: Right. Okay. Wow.

KP: Do you still keep in touch with them?

IM: Oh, yes. Yeah. Well, they send me a check every so often.

ALL: <Laugh>

IM: Yes, we talk. Wow. No, and I just love them. I mean, I follow them on their Instagram and they're just lovely. I, you know, I get pictures from their family, and I make them send me pictures of the farm every once in a while.

HR: I'm just, I'm just curious from the high school that was there, how do you remember the high school? Like was the high school there when your dad owned the property or when was the high school?

IM: No, well, let me think. Gosh, you know what? That's a good question. When did they build that? I think, you know what, if you go to the building, it'll tell you, or if you just look it up on BCISD. they, when that was built, because I think, I think it was built after I inherited

HR: It. Oh wow. So, it was fairly recent. Okay.

IM: I think so. Yeah. It's recent. I, I don't, I know it wasn't there when it was being formed.

HR: And the photo with your parents, who's, who's that in the orange? Is that you?

IM: That's me.

HR: Perfect.

IM: That was me a long time ago. I'll... I have white hair now. Thanks to Covid. I was like, okay, I'm not dying it anymore and already enough already. But yeah. But that was me in the eighties. Okay. So, you know what, I was on the school board in the eighties and there was no school out at Rogers, that's for sure.

HR: Oh, okay.

IM:

Yeah, we were, back then, we still just had two junior highs.

HR: So, then the property that the school is on now, was it also just open land?

IM: Yes. Mm.

IM: Yeah. It's been just pretty much like I said, so when, let me see now I don't know how many pictures I've sent you. So, so in a minute you can check and see if I sent you all the ones I had back when, when daddy bought it, like, like Monte Crystal Road and is it Junior, I think is the other big road on the, before Ry Town, Those were two lane highways, you know, they they did, they weren't big streets and that's, we would take that out there to Rogers Road and it was just like nothing. But it wasn't a housing development, that golf course thing, all of that came after all of that was more recent, like that maybe was in the 90 when all that started happening.

HR: And when all these projects were, were popping up, did anyone ever try to contact you for your property, your family's property?

IM: Yeah. Yeah. Even after I inherited it you know, I got offers from some of the neighbors. They wanted to buy it, but they were gonna either farm it, you know, or with pesticides or turn it into housing or something. And I was pretty adamant that I didn't want that to happen. I just didn't think my father wanted that. I know that's weird, but No,

HR: No, Yeah, I understand.

IM: I could afford not to sell it and I didn't want to, so I didn't

HR: Did the school or when did they try buying it from you or?

IM: No, they never did. Okay. At that. They, but when, like, when they bought the land next to us and I think the elementary school was there first and then they built the junior high, but they weren't gonna expand towards me because they were already on the main road there.

IM: So, it, it could have been housing, but, and a couple of people approached me about it, but it was like, eh, I don't trust you guys.

HR: I'm looking at the photos you sent us. The man in the hat who's, who's that?

IM: Okay, so let me look at 'em again on the me. Okay. So first of all, so there's, so there's the three of us, right? Right. So that's my mom, dad, and me. And then there's the three pictures of dad as a medic in the army. You saw those, right? Yes,

HR: Yes

IM: Okay. And then the other, I just sent you two pictures of mom and dad. He's the one with a hat that's just mom and dad, and that's him with a hat. He always had a hat.

IM: He was a cowboy. And then the pictures so that, that guy with a hat with the cattle, that's my brother. That's my brother's Sonny. But he passed away in the eighties early. And so the first picture is as you walk, as you come in, I think it's from the back towards the house because it looks like that house is the one that we moved to the front of the property. So that picture's being taken from the back of the property.

IM: And then the gates, The gates with the cows right there at the gate. That's how we go get in. And I think that's how they, that called them, the Raygozas still have the gate in that area. And then the next car, that's my dad's car with the horses. That's just to give you kind of a feel for the land when it was clear you know, and back in the day. And so that's my brother. So, all of those pictures are probably in the sixties and seventies. And so, you'll use, so then there's like, that's my brother and my dad, I think on the horses.

HR: Okay. The man in the khaki, I'm assuming your dad. And then the-

IM: Yeah. And then be my brother, my brother's the one next to the car with the horse.

IM: And I'm going to try to get you a better picture of that if you want, if you're, I don't know how many of these y'all can use, but so then you'll see all the, there's like three or four cars and there's people getting there. That's in 1977. That's the only one that has a date. and that's at my parents' 30th anniversary. And that's with family and friends. So those two ladies are my dad's sisters. And the lady with the sunglasses is a good friend and so see, you can see tables were set up and then you'll see more of the others. So, it's all the deals, you know, and then all the d and then I, the next two pictures, Oh, I cut off looks, I cut it off the one with the car. I wasn't just sending you the car. It's supposed to have a guy next to him with a gun. That's cause they would go out there dove hunting.

HR: Oh, okay.

IM: In Dove season. So that's, that's my brother. And the one that's like kneeling down is my brother. And then the others are some guys, and they all have their rifles and they're, they're there doing dove hunting.

HR: I don't think I have those photos.

IM: That might be the one I didn't send you yet. I'll send it right now.

HR: Okay.

IM: Let me send it right now.

HR: You said your brother, his name was Sonny? Or that like a nickname?

IM: His, his, well his, that was his nickname because he was Lado Junior.

HR: Okay.

HR: Just out of curiosity how, how was it growing up? Like were your, were your, was your family very, you know, American Texan or was it very like Tejano? Was it like more to the Mexican Hispanic roots?

IM: Yeah, so here's the deal. My, all my parents and all of our, my aunts and uncles were bilingual, and my grandfather was, one grandfather was bilingual and bi literate, my dad's dad. So, so I grew up speaking only Spanish in the family. So, my first language was

Spanish. Okay. But a year or two before I started kindergarten, because I'm the oldest, Sonny was younger than me. Okay. My parents switched to English only because they needed me to be fluent before I went to school because it was the law that you could not speak Spanish on school property. Yeah. And it was a law until not long ago and it was enforced back then. And so, they wanted to be sure we were bilingual. So, Sonny spoke even less Spanish than me because they started speaking English, you know, a couple of years ahead of him because of me.

IM: And so, I, by the time I went to school, I was English only, Well I was still, I still spoke Spanish with my Theo and Theas and my grandparents. But, and we, we ate Mexican food every day. Rice, some beans with something every day. And Martin made flour tortillas every morning, bless her heart, the best in the world. And so Mexican culture wise, food, language you know, celebrations. But we were very American also. We always had 4th of July and Thanksgiving and you know, New Years and all of that. So, I grew up very Mexican American and going to Reno all the time as kids, you know, the whole entire family that deals on my, on my dad's side. my grandparent father. Even on my mother's side on Sundays it would be my mother's side. Some Sundays it would be, we would go to eat lunch on Sundays at Reno it was the thing.

IM: There was no big deal crossing the border back then. You came and went all the time. And then we'd go have lunch and then we'd go to the mercado, and they would buy all their vegetables and can and chocolate and whatever we wanted and medicines, you know. And bring them back. So, I grew up crossing into Reynosa the whole time. And Progresso and Reynosa was weekly. I mean we went all the time. And so as for Roots, you know, we had 16 de September and 5 De Mayo and all that was part of it, but we weren't like Chicano. Like I became that in college because I was in college in the late sixties when that was all starting, and the Farm Workers Union was being started and all of those things. That's when I was in college. And my grandfather, one story that I wanted to tell you about my grandparents is, so my grandfather, so my dad's dad, the one that they lived in the ranch and then they, he tore the house apart and brought it back and rebuilt it in Edinburg.

IM: He was a grocer. So, he had a grocery store out when they lived in the ranch, and he was the grocer for all the ranchers. And then when they moved to town, he built a grocery store next to the house. So, if you go to the 219 N 13, there you go. That's the address. 219. There's a brick building, not brick, but the Yes, it's concrete. There's a building right there that I think it's still a grocery store and it was his grocery store and then a beauty shop was part of it. My aunt that never married was a beautician. So, when they built grandfather's new store, they built her a beauty shop. So, they were merchants, you know, they were, they were businesspeople. Well, that's my mother's father had a pool hall. So, he was a businessman, and he was not bilingual. They were not bilingual, and their business was next to their house also. And back in the day that was called Haramin, that was University drive. So, both of the families had businesses, my grandparents had businesses. So that would've been like, I know the good, a cool story about my grandfather, the, the pool hall Alvino Rena was that he had three sons that went to World War II, and they were all single and they would send their money home. So, they saved all those checks and that's how they built the pool hall.

HR: Wow.

IM: I know, it's kind of cool.

IM: I think I'm going to find that one document that I thought I had embraced. Yes. There it is. Yes, you I found it.

HR: Okay,

HR: Well while you send that to us is there any other stories you'd like to share? You know, other than in your, your grandparents?

IM: Here I'm sending you the word that I, I was trying to find that had the 1947 date. Okay. And I found it. I knew I couldn't have erased it. Or 1946, I'm not sure. Anyway, I'm sending it to you. Okay. Let me see what else, what else did I want to tell you? Yeah, this document is dated in 1947 in June and they're recording the deed of dad having bought the land is what I assume. But and I don't know if it didn't have, I, I have that in the safe and it looks like this is something else. I, it, I don't think it had an amount like so that's why I just did the front of it. But I might go look at that again and see what it'll,

IM: 'Cause it's just the recording of it. It's not the documents. I don't know how they do those things. But like I said, that'll have like the numbers that if you wanted to look them up on the Hidalgo County Courthouse website. Yes ma'am. These documents have all of those pages and where to look and what volume and all of that. Okay. So, I think that's a lot of the stories. If you all review it or writing something and decide oh, we should have asked her that, just send me a text or call me. Perfect.

HR: Okay. Real quick before we go, I'm just interested in all this family stuff. In, in that photo of your dad with all those other men who are, who are those other men? Those like family members?

IM: Oh, yeah. Mande? they're like tios and tias. Yes. I can probably name most of them. So yeah, so looking at the one where they're all wearing a white hat. you know, cause they're all like good guys. So, the very first one is my tio Camilo and all of these guys, I'm pretty sure all of these guys are World War ii. vets

HR: Oh, okay.

IM: Well, most of them. Oh, oh my god. So, the very first one is Camillo Reyna and the second one is Avan, Avan, Avan something. And then one of my dad's good friends and the next one in the blue shirt and his that's not really cowboy. That's my Tio Leo, that's my dad's only brother Leo Munoz. Okay. And he was more of a refined, he wasn't the cowboy guy. He was a banker and stuff like that later on. Okay. And then the next guy, oh my God, was just an amazing dude. His name is Marcello Hinojosa and he married, so he's my father's brother-in-law. So, he's a brother-in-law and he was a incredible carpenter. And he was a twin, and they were both Oh, they loved, loved to have do pranks on people. He was a prankster even though he was older. And then that next guy in the light blue shirt, that's my dad.

IM: So, he's the owner and then the next guy, I don't know, it was some friend of dad's, and the saddles are in the back because of the horses. and they're in front of that, that area that was in the back of the property. And then on the so on the, the lady, the one where there's three ladies, the picture with the three ladies?

HR: Yes ma'am.

IM: The two ladies in the back tia Carmen was the one with the black hair. She was the beautician.

HR: Okay.

IM: And the other one was Tia La-La. She was Marcello's wife. That's my dad's sister.
So, Marcello Hinojosa's wife.

IM: So those two are connected. And my mother, Do you see the picture with the Coca-Cola machine?

It's like four men. It's like Marcelo and, and Lala are seated, and my dad and uncle are behind him.

HR: Yes. I found it.

IM: Okay. The guy between my dad and, and my uncle is my mother's brother. That's Max Reyna and the lady that's kinda walking, that's my mother.

HR: Wow.

IM: Yeah. And see that structure is just like a, I don't know where that, how he got that house. It's like, it was just like, but it's big. but I remember it being little. So, and those are all the old cars. So, this is, this is, these are, those are the photos that are dated October 9th, 1977. Cause my parents were married on October 5th, 1947.

So, they were celebrating their 30th anniversary then. Oh yeah. Here, let me send you the picture. Oh, it's my dad. The one that's just the car by itself. Then I went, oh, that's supposed to have a guy with a gun. I'm going to send you that one now I have it here, but somehow, I cropped it. And that's my dad with a gun. Where he had hosted and now you can see that there's wanting, Okay. And see that's in the seventies and you can see that the monte is already growing behind. He had already stopped doing anything in terms of having the animals or farming or anything. And that you can see that the, the car is on the road. That's what I call the road that was on the east side of the property that ran on the way to the back. you can see it on that picture.

HR: Yes. Wow.

IM: And that's it. This has been more fun than I thought. I'm glad I am looking through pictures. So, I've had all kinds of memories lately.

HR: Well, that concludes it for us. On our side. Like I said, if there's anything else last minute you'd like to share, we're here.

IM: No, you all are great, this is fun I'm so glad you are doing this. Most people don't ever find out any of this stuff, so it'll be there.

Appendix K

Interviewee: Ruby De La Garza

Interviewers: Christopher Covarrubias, Eduardo Hernandez

Interview date: November 3, 2022

Interview location: Edinburg, Texas

This interview was conducted virtually on the 3rd of November of the year 2022. The Interview lasted approximately 25 minutes. The interviewee was Mrs. Ruby De La Garza. She is an outreach coordinator who works on behalf of the USDA. Mrs. De La Garza has been working with the USDA for 12 years, initially starting as a liaison. She primarily focuses on recruiting and spreading awareness about what the program has to offer. Based on her experience, she was able to provide information about her work and the USDA's role in it.

Christopher Covarrubias: Today is Thursday, November 3rd, 2022. My name is Christopher Covarrubias, and unfortunately, my partner, Eduardo Hernandez isn't able to attend, but we're both. From the university of the Rio Grande Valley in Edinburg TX. I am here today with Miss Delagarza from the U.S Department of agriculture and we are conducting an oral interview, for our university class titled Discovering the RGV: The Natural and Cultural History of South Texas, as we research the Raygoza family and Terra-Petra Farm and their farming family legacy in Edinburg, TX. Let's begin.

C.C: I just want to inform you that we're going to be giving you a copy of the transcript. That way, if. You wish to omit anything that you say, uh, we'll be able to do that, and then you can give us the seal of approval for the final transcript.

Ruby de la Garza: OK uhm, OK, and I'm going to turn off my camera just cause I feel like it's a little I hear you choppy and I don't know if it's the bandwidth so I'm going to turn off my (camera)

C.C: ok

R.D.L.G: See if that'll help.

C.C: Can you tell us what USDA is?

R.D.L.G: ok I'm ready

C.C: oh ok

C.C: Can you tell us what the USDA is and what it does?

R.D.L.G: OK, well before I answer that I want to Just state my name and my title. My name is Ruby Delagarza. I am a program outreach coordinator with USDA Agricultural Research Service, Talent Outreach Branch. Our branch works with the Agricultural Research Service, Economic Research Service, National Agricultural Statistics Service, and National Institute of Food and Agriculture. USDA stand for the United States Department of Agriculture. Our

department provides leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on public policy, the best available science, and effective management. Our department has a vision to provide economic opportunity through innovation, helping rural America to thrive; to promote agriculture production that better nourishes Americans while also helping feed others throughout the world; and to preserve our Nation's natural resources through conservation, restored forests, improved watersheds, and healthy private working lands.

C.C: Thank you, uh, when was the USDA established?

r: So, the USDA was established by President Abraham Lincoln in 1862, and our department was known as the People Department. And so, it is said that our department and our agencies help people every day in every way, from the food you eat to the house you live in. All of that has been touched on by someone in our department.

C.C: A what is your current title at the USDA and how long have you been within the USDA?

R.D.L.G: I've been with USDA for 12 years. I first started my position in the federal government at USDA 12 years ago as a liaison with what is now the Office of Partnerships and Public Engagement working with Hispanic-Serving Institutions (HSIs). A few months ago, I transitioned into a new position as program outreach coordinator doing talent outreach so still similar work to what I was doing. I work to recruit talent for the agencies that I mentioned previously.

C.C: Have you had any previous positions in the USDA?

R.D.L.G: Yes, like I said, I did serve as a liaison with the Office of Partnerships and Public Engagement. I covered Texas and so I worked with Hispanic serving institutions in the state of Texas.

C.C; Can you describe your position and responsibilities in your past and current position at the USDA?

R.D.L.G; So, in the past as liaison, I was located on campus at the University of Texas, Rio Grande Valley, but I did cover the entire state, so I worked with Hispanic serving institutions to identify education, research and capacity building opportunities for these institutions. I worked with staff and faculty to identify grants or other programs we have such as the USDA E. Kika Delagarza Fellowship Program, which is for faculty and staff from each size. So, bringing awareness to those programs for colleges and universities and an HSI, which is a Hispanic serving institution, is a college or university that has at least 25% enrollment of Hispanic students, so it's a minority serving institution. I also worked with students to identify internships or career opportunities with our department and in my current position I kind of do that similar. So, I work with students to identify internships. Our office manages the Hispanic Association of Colleges and Universities (HACU) internship program for the entire department. So, bringing awareness to those internship opportunities and other internships with our agencies and then permanent positions with Agricultural Research Service, National Agricultural Statistics Service, Economic Research Service and National Institute of Food and Agriculture. And I apologize if I talk in acronyms, so just remind me so I can say it, but part of my position right now is to bring

awareness to positions under talent recruitment for those agencies. I am working with students all across the country to let them know about the positions that we offer and so we post on LinkedIn, Handshake, and a wide variety of social media networks to promote our positions.

C.C: Can you tell us how you were brought into the USDA? Have you always had an interest in working for them?

R.D.L.G: I worked for a nonprofit before, and my undergraduate degree is in Community health and then I have a Master's in business and so I think when I was approached about applying for my previous position, I was a little hesitant because I didn't know how I could fit at the department without a degree in agriculture. But my experience in outreach and working with grants helped. I was brought in under a student program kind of similar to a program we have now called recent graduates. I had recently graduated with my MBA and so I was brought in under a student program that transitioned into a permanent position.

C.C: What were some of the biggest challenges when you were a liaison for the USDA?

R.D.L.G: I think some of the biggest challenges, even now in my current role, are the misconceptions about agriculture and the types of careers that we have at USDA. I think when individuals think about agriculture, they just think of farming and ranching and being outdoors. But there are so many different types of career opportunities with the USDA. We have 26 agencies and offices and so within Agricultural Research Service, we have a wide variety of scientists that do research on agriculture. We have meteorologist engineers and entomologists. At Economic Research Service, we have a need for students who have a background in economics. At National Agricultural Statistics Service, a lot of math and science, and in addition to that, all our agencies are like a business. We have a need for individuals with a background in accounting, public relations, communications, graphic designers, computer specialist and so I think part of you know the challenge for me has been increasing awareness about the other types of careers we have at USDA and telling students that it's much more than Agriculture, you know, there's a wide variety of careers in AG and telling students what exists at USDA, whether it's through internships or career opportunities.

C.C: Yeah, that's very interesting.' cause when I think of the USDA, I do just think of like farming, uh? And like cattle and like, uh, soil like research. And you know it makes you forget that there's like a bunch of other fields within, like the department that like take care of like you know, daily operations and stuff like that.

R.D.L.G: And we still have a need for, you know, a lot of individuals that work with producers, soil scientists and engineers. A lot of researchers in science and AG, but there's so much more and I think it's highlighting the other careers just to bring awareness. For example, we're also a bank almost, we provide a lot of financial assistance to farmers and ranchers. So we need students with that business background. We also have Foreign Agricultural Service within USDA. We have attachés at embassies across the world promoting American agriculture. All of those support Agriculture and support our farmers and ranchers and it's important to highlight those positions as well.

R.D.L.G: As a liaison that maintained an effective partnership between the US Department of Agriculture and Higher Education Institutions, was there an ideal target audience?

R.D.L.G: Uhm, I think it was working with faculty and staff who did agriculturally related research, and so a lot of the institutions that I worked with did not have an AG degree per say. Even at UTRGV when I first started, they didn't have an AG degree. Now they do have a four-year degree in sustainable agriculture. I know Texas Southmost college in Brownsville recently started two-year degree programs in agriculture and agricultural business and so a lot of institutions were skeptical if they didn't have those agricultural degrees about how they could apply for grants with USDA. But a lot of the research faculty at colleges and universities do is very much related to agriculture and so I think it was just kind of bringing awareness to you know what kinds of opportunities there were for research or education grants to faculty and staff. I think my target audience would really be the faculty and staff at the institutions, because then I knew they could help share information with their partners and with their students. If I would be trying to recruit or promote internships with USDA. I would share them with faculty and staff who would help share with students. Or if I was trying to promote a grant, I would target the faculty and staff.

C.C: Give out information about grants and stuff like that, right?

R.D.L.G: Yeah, and a lot of institutions. So, like even you know some of the institutions who do have agricultural degree programs like Texas A&M University in Kingsville. They have partners at smaller institutions and so I think it was just increasing awareness about research that's AG related. There are also education grants and so I know there's a faculty member at UTRGV who received a grant who was able to develop curriculum to offer courses and soils, and so by doing that students are now eligible now for positions at USDA through at Natural Resource Conservation Service for soil science and soil conservation. But it was all part of you know a grant. The faculty member received funding from USDA. Now UTRGV offers those courses, but by offering those courses, these students are now eligible for specific positions with our agency. So, I think it's just, you know, increasing awareness about what kinds of grants and not just research grants. The different types of grants there are for colleges and universities and unfortunately, there are misconceptions you know amongst faculty and staff that USDA grants are just for your larger institutions or what we consider land grant institutions. So, in Texas, Texas A&M University is the land grant, but a lot of our smaller institutions have been very successful in securing USDA grants, and in Texas, you know, UTRGV, Texas State University in San Marcos, Texas A&M University Kingsville, and Laredo community College. That's another thing you know some of our two-year institutions think they can't receive funding because they don't do research or they're smaller, but they're still eligible for funding that USDA has.

C.C: And in what areas did you conduct a majority of your work as a liaison for the USDA?

R.D.L.G: Uh, I primarily covered Texas. So, in my in my former position, I worked under the Hispanic serving institutions National Program office and we have liaisons that are placed throughout the country in different regions, and so we have two liaisons in California, a liaison in Chicago that covers the Midwest and my former position in Texas. Even though I was just assigned to Texas occasionally, I would work with New Mexico if

there was a need for me to assist since we don't have anyone in New Mexico but primarily Texas.

C.C: How do you know Juan and Shakira Raygoza?

R.D.L.G: I met Shakira actually when I attended the Hispanic Texas Hispanic farmer and Rancher Conference, we did a site visit to their farm, not their current location but at their previous one and I was really, really impressed with their farm. Juan now works at UTRGV, and he actually works with one of the USDA grants that was awarded to UTRGV, which is the beginning Farmer rancher. We've also went to interview Shakira about the different USDA programs she has been a part of. You know she works a lot with schools as well doing Agricultural education. But that is how I came to know both of them, primarily like I said, through the first site visit I did with the Texas Hispanic farmer and Rancher Conference.

C.C: In your role of talent outreach, how do you recruit/Find interns for the various agencies in the USDA. Do you travel around to meet with protective talent, or is it more virtual?

R.D.L.G: So right now, I've recently just started this position, so it's been a lot more virtual. Like I said, we've been using LinkedIn and handshake and so the specific agencies that I work with at USDA, like I said, were agricultural research service, Economic Research service, national agricultural statistics service, and National Institute of Food and Agriculture. I haven't traveled much but we do attend different conferences. Recently, we attended the Hispanic Association of Colleges and Universities Annual Conference in San Diego. I will be traveling more across the country to different regions and meet with students and talk to them about our positions. But we do virtual workshops I know recently we participated in a Virtual Career Expo with the Peace Corps core. So, it's a combination I would say of, you know, in person and virtual.

C.C: How has finding talent changed since the COVID-19 pandemic?

R.D.L.G: I will say it's changed dramatically. Before the pandemic I did a lot more travel in person. So, if I visited, you know the San Antonio region I would try to go for a week and visit different colleges and universities within that week. I would more in person doing student presentations. But that has really changed. Since the pandemic a lot of us are much more comfortable doing virtual events. Virtual events allow me to reach students more students that you know that aren't necessarily closer to me. We have a travel budget. So, in the past it was, you know, like I couldn't visit everyone every year and I think now being virtual, you know I can reach somebody in a different state, you know and so it's definitely, I think, changed for the better. Like I said, we also use some other applications or other networks. So, handshake and LinkedIn I think a lot more people are much more active in those now.

C.C: What is one of the biggest challenges you face in your role as talent outreach?

R.D.L.G: I think you know like I said, one was the misconceptions in AG. You know, bringing awareness to what kinds of careers and what USDA does. Then there are challenges sometimes students don't see the benefit in a career in public service. A lot of

students tend to first think of private industry for positions, and so for some of our careers such as engineering, I think you know the pay is probably less than if you go into private industry. But I think there are a lot of other benefits. You know working in public service and so we have, you know, competitive pay. But I think with you know, our health insurance and other benefits our annual and sick leave and Ultimately, you know just engaging with students who really want to make a difference and work in their community, and I think that's the way you know we can reach people because I think a lot of the younger generations do want to make a difference in their communities and in their country and so kind of bringing awareness into you know all the work that we do, not just the types of careers, but the work that we do at USDA to help everyone. We all eat food whether we're vegetarian or not, we all eat food. Just learning about how our agency has an impact on all of that in the process, you know, from farm to table, but then also, like you know, what we do before to ensure that we have enough food to feed everybody. USDA also does a lot in rural communities. We have a Rural Development agency and I think sometimes individuals don't realize what we do in rural communities.

C.C: As a liaison and now an outreach coordinator, what has been the most rewarding achievement in regard to your job?

R.D.L.G I think it's definitely seeing a student get an internship or getting a career at USDA. Even if I have not been in direct contact with the student. The student was part of a grant that I helped the faculty member get and they received an internship or job. Just learning that I was able to help these students or even just you know, helping the university and helping that faculty member in securing grant funding. So, for me it's rewarding because I know that you know the grant to the university is going to help these students. You know, prepare them for jobs at USDA and help prepare them for other types of careers in agriculture, so I Uhm, just being able to, you know, help these students and know that I've had an impact. Whether it's you know through direct contact or not. Sometimes I can help students get an internship or job and sometimes the student forgets to say that they got that job or internship and so it's rewarding. The other day I was compiling some slides for Hispanic Heritage month, and I came across a former student who submitted her photo, and she had a UTRGV sweatshirt. She works with the Forest Service in Vermont and so then I reached out to the faculty member at UTRGV, Dr. Pereira and she confirmed that she was one of her students and I thought wow. I felt like I had some kind of impact on that and for me that's the most rewarding part.

C.C: Uh, this concludes the interview. Thank you so much for Taking time out of your day to meet with me and, uh, being part of the interview.

R.D.L.G: No problem and I can stop the recording right now. I'll stop it.

Appendix L

Interviewee: Ricardo Ortiz

Interviewer: Joseph Rabago

Interview date: November 28, 2022

Interview Location: 2514 S Veterans Blvd #2, Edinburg, TX 28539

This interview was conducted in person on November 28, 2022. The interview lasted approximately 15 minutes. The interviewee was Ricardo Ortiz who shared his knowledge on the Natural Resource Conservation Service NRCS and sustainable practices. He also gives us insight on some of the programs the NRCS and how to apply.

Joseph Rabago: Ok so today is Monday November 28th um 8:45 am. I'm here with Ricardo Ortiz um from the NRCS and I'm going to be asking you some questions today. um so for our first question. What is the NRCS and what services do you offer?

Ricardo Ortiz: Natural Resource Conservation Service is an agency with the USDA, the Department of Agriculture, we provide technical and financial assistance to land owners, farmers to address resource concerns on their farm or land. One of the main goals is to help them evolve into conservation stewards to make sustainable use of the resources for futures to come.

JR: ok great

JR: So, in what ways does the NRCS help or assist organic farmers?

RO: NRCS has a catalog of conservation practices to help our clients address resource concerns on their land related to soil, water, air, animal, plants, energy, always keeping in mind the human considerations. NRCS helps organic farmers and producers develop conservation plans based on their needs, always taking into consideration their requirements to keep their operation as organics such as so no pesticides, minimum disturbance of soil in order to help increase the soil habitat- organisms in the soil and so on. Some of these conservation practices are crop rotation, cover crops, mulch, reduce-no till, and irrigation water management, among others.

JR: What are some of the more common assistances given to organic farmers?

RO: Some of the common ones are cover crops, crop rotation, no till, irrigation system (micro irrigation) High tunnels is another common one that can help the producer protect their crops from pest without the use of chemicals and from extreme weather patterns.

JR: Have you had any instances of conventional farmers wanting to convert to organic farming? And if so, how does the NRCS help with that conversion?

RO: Yes, we have. NRCS has helped clients technically and financially in every step of the organic transition process. Whether to develop a Conservation Plan that fits their operation and goals to start the transition process, or by providing technical assistance during the transition process, or even to help maintain organic operation status on a farm, NRCS has the tools to help. Typically, most of the organic producers initiated from scratch with an organic approach when starting their operation, not necessarily transitioning from conventional to organic operation. Today, you can see this more often on the urban side in small scale operations. Urban farmers are stepping ahead into organic operations, putting high tunnels, and adopting these organic activities under small operations.

JR: What are some of the programs that the NRCS have sort of specific to organic production?

RO: NRCS has the National Organic Initiative, which runs through the Environmental Quality Incentive Program, which provides Technical and Financial assistance aimed to organic farmers and producers. As previously mentioned, our conservation practices can help a client initiate the organic transition process, assist client during the transition process, and continue assisting clients to maintain their certified organic operations.

JR: How can farmers work to improve their soil if they feel they are not receiving the proper crop output?

RO: Every farm's needs and components are different. Understanding the fundamentals of the soils within their lands is crucial to achieve optimum yields while making sustainable use of the resource. They need to know the nutrient inventory within their soils. Taking a soil sample to see what is in there before taking operational decisions will help the farmer protect the soil, and save time, money, and energy. Farmers also need to evaluate the management activities being conducted on that land. For example, if they are constantly tilling it, or if there's some type of activity that can be compacting the area, that could lead to soil degradation and other adverse effects. These are just a few of the considerations they need to keep in mind when improving their soil's health. Once the problem, or "resource concern" as we call it, has been identified, the farmer can then evaluate implementing different options to enhance their soil's health such as nutrient management, cover crops, crop residue, no-till, etc. Soils are living organism and should be treated like so.

JR: So, the NRCS was initially founded to help with soil erosion. Are organic farming practices ideal for soil conservation?

RO: Yes, any organic approach or methods used when addressing a resource concern involving soil, water, air, plants, animals, and energy, is beneficial for these resources.

JR: What are some of the most common natural resource issues farmers face and how can they be solved?

RO: Inefficient irrigation water use is without a doubt one of the top ones within the RGV. In order to address those issues, farmers and landowners are more open to alternatives like going from flood irrigation to drip irrigation. Also, land leveling to improve the uniformity and distribution efficiency of the irrigation system in their farm. We have seen also an increase use of rain harvests in the area, especially within small farmers and urban farmers.

JR: So, how can farmers enter the Conservations Stewardship Program or the Environmental Quality Incentives Program. And how do you help them maintain or improve their conservation systems?

RO: So, everything starts with a visit to the USDA Service Center within your county. You need to complete several forms including a program application with us and make sure you have established records with the Farm Service Agency. These initials steps include a site visit by NRCS staff where we conduct a resource inventory, to identify any other resource concern and help you develop a conservation plan, always taking in consideration your goals as a farmer. This is a voluntary process, the landowner, or farmer is the decision maker, so the conservation plan will be adjusted based on their goals. Depending on the identified resource concerns and the available alternatives, we can then check which program fits better with the existing scenario and with the client's short and long-term goals. The Environmental Quality Incentive Program provides the financial and technical tools to help implement conservation practices. Conservation Stewardship Program typically helps those that are already implementing conservation practices and we are helping them to keep it in place and enhance them.

These programs can be seeing as educational tools. Regardless of what program the client applies to, they will be exposed to these experiences so they can learn and become better stewards of the land.

JR: Would you say that farmers in this region are switching or starting to become organic farmers?

RO: We can see more starting than switching, especially the urban and small-scale farmers.

JR: Are there any other comments you'd like to make before closing this interview?

RO: NRCS is here to serve. Our motto: "Helping People Help the Land". We are here to help landowners, farmers, anybody looking for improve their management skills or use of the resources within their land to maintain it and make it available for future generations to come. Anyone interested in conservation and sustainable use of the natural resources is welcome.

JR: ok great. Thank you very much.

RO: you're welcome.

Appendix M

Interviewee: Chris Garcia

Interviewer: Hernesto Hernandez

Date: November 10, 2022

Location: Phone Call

Hernesto Hernandez: My name is Hernesto Hernandez, today is Thursday November 10th, and I am conducting a oral history interview with Chris Garcia via phone. The interview is approximately 12 minutes, Chris Is a great friend of Juan Raygoza, he is familiar with the USDA and helped Juan send a letter to the USDA for assistance. Chris grew up in the farming industry, left for Houston for a different job opportunity but is still having plans on growing an organic farm. Chris tells us a bit about his agriculture beginnings and how he kind of shifted from it due to a personal reason. Hope you enjoy!

Chris Garcia: Hello

H.H: Hello

Chris: Yes sir

H.H: Yes, Mr Chris Garcia

Chris: Yes sir

H.H: Hello sir. How are you today?

Chris: Doing great, how about yourself?

H.H: I'm doing pretty good just this interview that we're going to have, So, today we're gonna be doing an interview for my class OK,

Chris: Yeah, sure.

H.H: Today is Tuesday Thursday sorry today's Thursday November 10 22 my name is Hernesto Hernandez and I'm a student here at UTRGV here in Edinburg, Texas I'm here today with Mr Chris Garcia conducting an oral history interview for our UTRGV class titled "Discovering the RGV" as we research Raygoza family the Terra Petra farm and their farming family legacy here in Edinburg Texas.

Chris: Yes.

H.H: Perfect, let me just go ahead and bring up my notes, how are you doing this evening sir?

Chris: Pretty good,

H.H: That's good

Chris: it's getting cooler

H.H: Yes, by the way. So, can you talk to us about yourself sir how was your childhood' your family?

Chris: Yes I was brought up my dad used to farm so I was brought up by history was when I was going to school you know basically involving farming with my dad, my dad would from about 500 acres in the valley are on Donna area and he was doing mainly vegetables but a little bit of cotton corn to rotate crops so that's and he vegetables he would form some of them would come to Houston, ship to Houston, so that was my brought up.

H.H: Oh, do you remember what kind of vegetables?

Chris: Yeah he used to grow tomatoes for the Fresh Market and also did cherry tomatoes and then he also did a lot of okra for the processor in McAllen South of McAllen I forgot the name of it, squash for the processor, cauliflower you know we mainly shipped round tomato and cabbage and basically the majority was a round tomato and a little bit of cherry tomato to Houston and okra little bit and then a lot of cabbage to to Houston we would ship it, ourselves

H.H: correct, so your background, we're you a farmer since a child?

Chris: yes, yes sir, Brought up on the farm and then it also cattle, 50 acres of cattle maybe about 100 of cattle

H.H: OK and you mentioned that this was in Donna?

Chris: Yes, in Donna.

H.H: And did you like it? or were you, like forced to do it? Or?

Chris: No, well you know how it is at the time when you are in high school, When you're you know you wanna be with your friends but you can't because you gotta go do some farm work, you didn't have time to go play basketball like you're the friends or do this but and then you learned a lot about everything you know turned on tractors and you know and

fixing them and and then once you get out in the real world you realize you know what I learned a lot from being raised in the form compared to other people that I work with they you know had more knowledge on everyday how to repair vehicles how to do this how to do that because of the experience that I had with my dad I enjoyed it, I enjoyed it, oh yeah, but it was something that I have to move on, go to school move on, and that's when I came to Houston so I ended up living in Houston and got a job, and that's how I ended up living in Houston.

H.H: And your job is within the same industry of agriculture or is it a different...?

Chris: No I went into that 2 year, right there south, forgot the name of it, it's in Harlingen, 2 years course in chemistry, So when I graduated from there I got a job in Houston with Shell, chemical, on the chemical side and then I ended up doing 20 years with them and then I kind of move on and I came back to the valley and I wanted to learn, I wanted to get back in agriculture because I had some property right there and Donna, I have 30 acres about 30 acres right there Donna, so I got a job with South South Texas organic, in Mission, and that's where I met Juan, yeah because I wanted to learn organic farming so I was managing their for Dennis Holbrook I did that for four years then at the same time I had a son my son had heart problems like to bring him back to Houston, so eventually I just said go back where you know my son's gonna get the best care you know yes so medical help so I ended up coming back to Houston and then I went back into the chemical industry and then just recently I retired, so I I bought some property over here between Katie and in San Antonio it's Weimar Texas and I'm cleaning it up right now and trying to you know I got I gotta tractor, a scraper and a disc and a blade other than I'm trying to do it on my own and got 30 acres over there trying to what I'm gonna do there is I'm gonna do a control environment try to get some instead of open field wanna do farming in the greenhouse so that way I won't have to fight so much to the environment so hopefully then this where I will be working with Juan and trying to get some experience that he does because you know Juan and I have always worked hand in hand you know we helped him out and he helps us out you know so it's a team effort not looking not looking at his competition just team, help each other.

H.H: I see here that you helped him send a letter to the USDA?

Chris: yes

H.H: can you tell us more? or if do you remember more or less of that letter?

Chris: I don't know exactly can tell you word by word what happened you know but I do know that just explained about Juan that is you know he's reliable he's dependable and that he's a hard working person you know he's very also he's very knowledgeable and in the in the agricultural industry he's you know I learned a lot about him and you talk about Juan

and I about 20 years difference in age but I learned a lot about you know through him you you just because you're old doesn't mean you know everything you know everything so and the same time one learned from us but and you know when I was over there was working on the organic I got my brother involved in some of his you know to buy a compost tea Brewer which he did and set it up and so my brother also got involved you know he's not into the organic business but he uses compost tea to enhance his fertilizer so making blends is not easy and that's something that we learn from yeah so Juan gave us a lot ideas and my brother he still has it he still does it he still uses it but he's not an organic farmer but just because you're not into organic doesn't mean that compost isn't very helpful, it saves you money and then you don't have to use too much fertilizer to to grow things. Yeah like I said, I've been through it, I've done I've gotten grants from the USDA projects to do on my property so I already knew you know everything about the USDA that I've kind of helped out Juan you know on the letter you know trying you know help him make sure you got what he needed moving to the farming in this industry on his own.

H.H: Oh, ok sounds good, was it a lot of work in the letter?

Chris: No, not when you know the person and you know just is right what he does, I mean there's no nothing to create, it's all natural what I put on the letter about Juan, and so it was easy.

H.H: And then since you helped Juan, did someone help you when you first wrote the letter?

Chris: My brother is always farming, I came out of school and came to Houston and it went into the petrol industry my brother stayed on the farm from my dad he took over from my dad so he he always had the USDA with him you know so he had to report his earnings and you know how many how many times did he created on sorghum corn and all that so he's always dealt with them so basically it was just hand in hand with my brother when I had to do you know apply for an irrigation this system on my property you know so it was pretty easy for me too.

H.H: OK Mr. Garcia, you thank you so much for your time and for this interview for my class okay

Garcia: no problem, anything [you need] just give me a call.

H.H: OK perfect thank you so much, Sir

Chris: Bye

H.H: Bye.

Appendix N

Interviewers: Santiago Uresti and Bruno Rosales

Interviewee: Joe Martinez

Date: 4 November 2022

Location: Weslaco, Texas

Time: 6:00 PM to 7:30 PM

JOE MARTINEZ (JM): He was excited about it. And he still is. He is very dedicated to it, even more than me. Then my equipment broke down and I never got back into it. Before work that's what we do, it is conventional farming.

BRUNO ROSALES (BR): It seems to me that like the way you work with Juan and other students is based on cooperation. Helping each other. I know that everyone does not agree with that. Some people are like you do your own thing, let's do it separately. Do you think that cooperation is important in organic farming?

JM: Oh yes. You can share what you have learned with others. If somebody is having problems and you've already been through them. I have helped a lot of people like that, and people help me. As I grew up and as I got into things. So, I get to pass it on. It is not like, hey I learned it and you're going to learn it on your own. That's how people learn. That's what I think. Someone told me to do it this way. Along the way, you try it, and you fail at it. But you get better.

BR: Would you say that is a good model of work? That the cooperation between farmers is good?

JM: Yes. We go to seminars. And that's what people share. Their failures and their success. If you have a story, you share it. And so on.

BR: That seems a lot different from traditional farming when it is a big company, that owns a lot of land. And they want to cultivate. They don't care about learning or sharing. All they care about is money. So, what I want to ask is if you think that is a good model. Only caring about money, mainly?

JM: Well, I think that if you learn how to do the work, money will come later. I would learn how to do the work first. Of course, you need help somewhere along the line. Everybody does.

SANTIAGO URESTI (SU): What is something that you struggled with the most?

JM: Equipment. I started with my old tractor, which was a 1949 9N Ford. 25 horsepower. But it did a lot of work for me until it broke down.

SU: And where did you learn how to fix a tractor?

JM: Well, how I was telling him. My family comes from agriculture. Way back then, they used mules. No power equipment. Eventually, of course, they got their own tractor and then

another tractor. But, when things broke down, I remember they would, they would talk about among each other. This thing happened, this carburetor broke, it was this. Then, they would tear things down, scratching their heads. That got me interested. Then, pretty soon that thing was working again. They would ask how you did that. I was around when those things were happening. So, then I went from agriculture to being a mechanic. Then, I came back. But you did both.

BR: But it's related right?

JM: Yes. Because now that people use machinery. You have to know how to keep it going. And I remember when Juan used to have trouble with his tractor, I helped him a lot.

BR: Then, he learned about it. Now he can do it by himself. Right?

JM: Yes. I wouldn't charge him either. Like many of the students that worked there with us. They would have problems with their cars. They would buy cars to get around. And they would come to me, and I would help them. They would just buy their cars but I wouldn't charge them for my work. Somewhere around the line someone would help me and say no, no, it's okay. If you have any problems, come again. And I passed on. I passed it on. If someone needs some little help down the line, I'll help.

SU: Do you know how many students there were?

JM: What do you mean?

SU: Like in number.

JM: That I have helped?

SU: Yeah.

JM: I don't have a number. I've helped students from all over the world. Too many. I've met a lot of students from China, Africa, Kenya, South America, Central America, Columbia, Brazil, you know, Bolivia, and it just goes on and on. We even had a student from Russia.

BR: Yup. This was about organic farming.

JM: Because of their agriculture there, some people do study organic farming. We have two areas that are organic lands. So, they have their own research on that. Most students that come are from the same agriculture that I work. Hopefully, they remember me.

BR: I bet they do!

SU: Yeah.

JM: Whenever I go, they would always tell me. Hey Joe, come and visit me. Whenever you are in this part of the world, call me up. Actually, the other day me and my wife were

discussing about that. I say “you know that I can go all over the world and call somebody.” Eventually, you never know where you’re going to end up. I think if you help somebody, somebody will help you.

SU: So, they go practice agriculture all the way over there?

JM: Oh yes. We had students all the way from Turkey. They do their research work. And they’re into that kind of work, agriculture. How to make it more sustainable.

SU: Has your family always done agriculture here in the Valley?

JM: My family’s agriculture is in Mexico.

BR: In Valle Hermoso.

JM: In Valle Hermoso, yes.

BR: Juan was here from ’07 to ’09. Have you kept in contact with him after that?

JM: Yes.

BR: How is your relationship with him after ’09?

JM: The best. We are really good friends. We still communicate. He is still doing it.

BR: It’s nice.

JM: He kept it up. He got into it more than me.

BR: Have you ever been to his new farm?

JM: I went one time. Yes. I was very impressed. He has a very good operation.

BR: It is a very cool farm.

JM: Yes. I tell him “hey Juan how did you go through your improvement.” He got some special loans. His wife and kids help him a lot. I remember his first kid was born when he was here.

BR: Really?

JM: Yes. He has them help around; they like it. I wish I could’ve taken more pictures. At that time, we didn’t even have these kinds of phones. Now it is very easy to take pictures. A lot of those memories are just in my mind. I can only talk about it.

BR: I think this a nice opportunity to talk about it. Can you think of another nice memory of Juan being here?

JM: Well, I remember that his wife was always helping him. They were always together. And I helped them as much as I could with getting his equipment, whenever he had problems with it. From there on, he took care of himself. I think getting him started with a piece of land was the most I could help him with. Hopefully, once I retire, I get back to opening up my land. Getting me a new tractor or something.

BR: Maybe, then, Juan can help you, right?

JM: Yes. I actually was telling him that I was about to retire. I have put in my retirement. I actually told him; you know Juan I would like to get back into this. And I'll have more time. And right away he said – Joe I'll help you. Right away he offered his help. Now, he will teach me a thing or two.

SU: Is there a committee for organic farming in the Valley?

JM: We used to meet on a regular basis, but I haven't been to them.

BR: What was the organization called?

JM: Farmers Market. Farmers something. I don't remember.

BR: Farmers United?

JM: Yes. They would get; for example, a lot of the crops that I grew, since it was more than people would actually take, I would wind up plowing under. I was about to get to the program to *embotar*. How do you call that in English?

BR: To pickle.

SU: To bottle up.

JM: They said, "Joe you should get into this." But I never got into that. To *embotar*. I don't know how to say it in English.

BR: It's ok. I think we get it.

SU: Yeah.

JM: He was looking for a piece of land. So, he knew this friend of mine who knew me.

SU: You didn't meet in the class?

JM: No. I was already working full time and he was beginning to study.

SU: You mentioned that Juan's wife Shakera would help you a lot. **JM:** She would help him a lot.

SU: Oh him?

JM: Yes.

SU: Oh yeah, she still does. Which is good. So, have you grown any crops for organic purposes?

JM: Not for a while. But that's what I was doing.

SU: Which crops were you growing?

JM: Oh, a lot. We grew a lot of cucumbers, zucchini, eggplants, corn, and melons. There were a whole lot of different plants. I dedicated different rows for different crops. Then, alternate. You cannot grow the same thing over and over in the same spot.

SU: What other organic methods did you know?

JM: No pesticides, no chemicals, no fertilizers. [An example of] a natural fertilizer would be like composted materials. That would be the nitrogen that the plants need. The land has mostly the chemicals needed for the plants, except nitrogen. Nitrogen has to be introduced. So, you do that either with chemicals, synthetic, or organic compost. To be [considered] natural would be [to use] composted materials. Anything that you have in your chicken you throw in a pile, banana peels, tomato scraps, anything that is left over.

SU: Did you ever use manure, like chicken manure?

JM: No animal manure.

SU: Is there a reason why?

JM: From what I learned, it is because the animal can have certain bugs in it, such as worms. That you really don't want to consume. So, I stayed away from animal manure. I wanted more natural stuff.

SU: I ask because my grandpa, was also into agriculture. And my mom would tell me stories of how they would buy *gallinaza*, which is chicken manure. But they would buy it in bulk and then they would just spread it around.

JM: We bought it. McAllen has a center where they sell it. But it is all plant-based – no animal manure. There are bacteria that can transfer from animals. So, that is something that I learned. But, I guess, if you're going to grow grasses, I think animal manure would be used for that. For food, I would just use natural stuff.

SU: Does it take a lot of time for it to decompose and for you to be able to use it?

JM: It takes a while. Maybe within a year. I used to keep a pile here. And I would move it around, move it around. You could actually put your hands in there and it was warm because it starts to break down.

SU: Is that different from mulch?

JM: Mulch would be the same thing but that's from plant stuff. People use that to keep the weeds under control and conserve moisture. Water is very expensive. If you really want to conserve water, use drip tape. All I did for my rows was to plant the seed six to eight inches or so. That's all you need for your plant. About eight inches or so. All of that was kept moist. Then, the plants would grow.

SU: That's how you would conserve water. Did it help you, when you got here, when the drought season was? Did it help you to know that information?

JM: The planting times, yes. There are certain plants that you can only put down in springtime. And harvest before summer. Then, there are some fall crops, like onions and cabbages can be grown during the wintertime. As long as it doesn't freeze. Most of the other crops are from spring to summer. Yeah. We did a lot of different crops. We were surprised at the taste. I would take to my mother and even my wife would take to her mother. They would cook stuff for us and ask, "where did you get this from?" I would answer it was from my backyard and even I was surprised. It was interesting. I was telling Bruno that once I retire, I want to go back to doing that again.

SU: Were there any crops that you liked growing?

JM: The tomato and the cucumbers and the zucchini.

SU: Were they easy to grow?

JM: Pretty much. The bugs would get some of them. But most of them would survive.

SU: What would you do with the bugs because you didn't have pesticides and stuff like that?

JM: You let nature take its chance and pretty soon there will be beneficial bugs. They are these bugs that eat these other bugs that like to eat these plants. So, you would see, these worms and aphids, or whatever bug was going to the plant, and pretty soon you would see the ladybugs and others swarming around. They would find them. That is what helped the rest of the plants would survive. Eventually, you figure out what kind of plants those beneficial bugs like. So, you plant them before you start planting your foot crop. That way they are already around.

SU: Did you ever buy ladybugs or other beneficial bugs?

JM: No. They came naturally.

SU: I know that you can buy them, right?

JM: You can buy them. And release them. What I saw here was that everything just came naturally. We also had rabbits, who would eat the vegetables. We had that problem. Then, my cats started going after the rabbits. I didn't know that they would hunt the rabbits, but they do. They would keep them under control. Eventually, that saved the crops. They kept them under control.

SU: I didn't know they hunt rabbits.

JM: They do. I saw them over there. The rabbits would come around. Then, I saw one of the cats. You know how they go crouched down. Then they would take off and then take off this way. What is this cat doing? He did like three or four zig zags, then he would stop. Then I looked further and there was a rabbit. Then he got really close until he jumped because rabbits are quick. So, these guys are taking care of the rabbits.

SU: And these cats came naturally too?

JM: Oh yeah. I didn't buy any cats either, until we had a kitten come in. We started feeding the kitten. Then the kitten grew, she was a female. From that cat more cats came. That's why we have cats. They come and go. If they like it, they stay. But I always have cats. Like I said, they keep the rodents under control. You want to keep the rabbit's operation under control. It's fun. We'll see how it goes after I go back into it again.

SU: Are you going to go after you retire?

JM: Startup my organic farm again. That's what I told Juan. That's when he said, you know what Joe let me know and I will help you get started again. I said ok. So, now I guess he's going to help me. We'll see how that goes. He just said yeah let me know and I'll go and help you get started again. So, I'm glad. We're still in touch. We'll see how that goes. This coming December will be my retirement, the last day of December. I'm looking forward to.

SU: Were you working as a mechanic?

JM: Lately, I've been a supervisor.

SU: Of an agriculture group?

JM: Yup. We take care of the farm.

SU: Which one?

JM: I work for Texas A&M Research Center. They research crops, of course. We do the practice. We still have to do plant the seeds, grow the crops, and do the regular farm practice. Once we do the planting, they take whatever data they get. Everything is experimental. So, I started there as a mechanic. Then, eventually, I'm in charge of a large group.

SU: Texas A&M AgriLife Research?

JM: Yeah. Right here. Texas A&M AgriLife Research. That's just one agency. I think they have like 13 agencies across the state.

SU: How long have you been working there?

JM: 20 years. I'm in my 21st year. I'm on my way out.

SU: Have you ever worked on anyone else's farm?

JM: I've worked on different farms throughout the years. Yeah. We were migrants. So everywhere we went there was farmland. We went as far as New York. Have you been out of the Valley?

SU: Only once.

JM: Let me know show you a piece of soil that I brought from New York.

SU: This is from what part of New York?

JM: We were in uh. Can you see it? We were 60 miles from New York City.

SU: Why does it feel like that?

JM: What I learned is that from this area, since there are a lot of forests. So, they reclaimed the land and cleared the forests to do farming. So, this is actually composted from the forests growing and dying out.

SU: So, it is not dirt?

JM: It is dirt. But it is composted material from forests. If it gets too dry, this can burn. If it gets too dry. We were over there in the '60s and '70s. When we were there, there were two fires on the ground. That's why people were not allowed to smoke. It was too dry and the land would catch fire. It would smolder and then they needed special equipment to turn off the fire. This is composted material.

SU: Do you think that it is more fertile than here?

JM: Oh yes. Here you have to add a lot of nutrients.

SU: Was it too dry?

JM: I think it was because there weren't as many forests. It was mostly desert. It was like a valley because of the river. If you go further up, it is almost dry. A lot of farmlands here is grown in dryland. There is no irrigation, they rely on rain. If there is not a lot of rain, they cannot grow a crop. Here in this area, it is irrigated land.

SU: That is in El Paso?

JM: El Paso is a desert over there. They depend a lot on the rain. Over there, in West Texas, they depend a lot on the rain.

SU: Do they do the little canals that lead into the farms?

JM: Yeah. My property hits a lot of canals. And farmers pay to use the water.

SU: The price of the land, does it go up because of the water, or does it go down?

JM: It goes up.

SU: I remember that my mom mentioned something that there was a river that cut through grandpa's land. It meant that he had less land to cultivate but he had water.

JM: There is a problem when people do not have water and it doesn't rain enough, they won't have a crop. We have a lot of water; we are considered irrigated land. That is one of the things that we research, where the plant doesn't need a lot of water. In case there are places where it doesn't rain as much. So, they create a seed they can grow with very little water. Or vice versa. If there are areas that have too much water, they want to make a plant that can survive in an excess amount of water.

SU: It is genetics?

JM: Yes. Our job is to grow the seeds like a regular farmer. What they do with it is something else.

JM: Oh this is a really big group. . Yes. All over the world. Do you see this black line? That is the drip tape. That is my friend Anwar. Since he was a student there, he knew Juan and Juan came with him. This is a Chinese student from China. This is Pepe Loyal from Mexico. This is a student from Kenya. On this occasion, they wanted to learn how to make tamales. Someone took tamales to work, and they fell in love with them. They thought this was something easy.

SU: The students asked if I could teach them how to make the *tamales*? I couldn't but I knew someone who could.

JM: No. But you can use our place. That was on Black Friday. They came during the afternoon and stayed all the way into the night.

Appendix O

Interviewee: Amanda Ramirez

Interviewers: Jorge Rodriguez and Ryan Torres

Interview date: October 31, 2022

Interviewee location: Edinburg, Texas

Interviewers' location: Edinburg, Texas

This interview was conducted in person on the 31st of October of the year 2022. The interview lasts approximately 10 minutes. The interviewee was Amanda Ramirez. She is a board member of Sentli Center for Regenerative Agriculture. Amanda gave us great insight on the purpose of Sentli Center for Regenerative Agriculture in the Edinburg community and how they work with local farmers to sell their products to the community.

Ryan Torres: Alright, today is Monday, October 31st 2022. My name is Ryan Torres. I'm here with...

Jorge Rodriguez: Jorge Rodriguez

RT: and we're students at UTRGV in Edinburg, Texas. We're here today with...

Amanda Ramirez: Amanda Ramirez

RT: conducting an oral history interview for our university class titled "Discovering the Rio Grande Valley". As we research the Raygoza family and the Terra Preta Farm and their farming family legacy in Edinburg, Texas. Let's begin.
(Thump)

RT: How do you know the Raygoza family and Terra Preta Farm? What is your experience with them?

AR: I (pause) I knew them, about nine or ten years ago. I started going to the farmer's market at the library in McAllen and I started purchasing from them and from there I kept purchasing. I've purchased subscription boxes from them. I got to know them more. We even had some of our students that I work with do a summer visit their farm and then I just continued supporting them. Through the farmer's market, basically.

JR: Okay. Describe your work with Sentli Center for Regenerative Agriculture.

AR: I'm a board member on the organization that she created so I help her with the background, the paperwork, the organization of it.

RT: What are your experiences with the UTRGV Sustainable Agriculture and Rural Advancement program?

AR: I don't know any of that. I don't know.

RT: You have not had any experiences with (pause) SARA?

AR: No.

JR: Yeah, okay, maybe it was probably Shakera, that she's the one that...

AR: Probably, yeah, I don't have any experience with it. Sorry.

RT: That's alright

JR: That's fine
(Laughs)

JR: Okay, what are your experiences with the local community in Edinburg? With, of course, with Sentli and the local community.

AR: I mean mostly just farmer markets. Sentli's fairly new so, I've just kind of met some new people at the farm. Some of the farmers that she's worked with and sometimes some of the groups that she's brought out.

RT: Do you know how Sentli started?

AR: Yes. It basically started during the pandemic because that's when there was a lot of demand for produce but they didn't have a way of getting it and, also at that time a lot of the farmer's markets were closed. Shakera came up with the idea, you know, of gathering produce from local farmers and then getting it out to people and she started a subscription box where you can pick it up so they could get out the food.
(Pause)

JR: What services and trainings does Sentli provide to the community?

AR: They provide workshops in regenerative farming practices for farmers. Hands on training. Any assistance for new farmers that want to start farming or underserved farmers and then also to the community they have workshops, they have tours, and then of course, they have their subscription boxes where you can get local produce. And they're also looking at getting an online market where you can just buy what you want, rather than the whole box. You can purchase from different farmers to buy what you would like.

RT: So, the vision for Sentli it's meant to bring the farming community together for the larger...

AR: Yes, to bring the local foods system all together where everybody can access it to get fresh produce and a way to get it into their diets. She's hoping to bring it a little closer and for delivery if they need too, as well.

RT: So, it's, it's meant to be like (pause) a more modern version of like how grocery stores used to be? Where like rather than bringing them from far away, you're bringing them closer?

AR: Right, you're bringing everything that's grown right here, right now (taps) um and you're getting it within a day or two.

JR: What are your future, what are the future plans for Sentli?

AR: They wanna continue to grow, get more people involved, more of the garden and fruit forest. To help the community, also, to help start accepting SNAP and WIC so they can get more people to be able to access their products and purchase their products.

JR: So, you're planning to, like, affiliate with the government through SNAP and...

AR: Yes. What it entails where you can just accept that as a form of payment.

JR: Okay

AR: So, they can have equal access and then the farmers, you know, are supported because they're buying their product, as well, so spending they're benefits locally.

RT: So, Sentli is more center around local, does the Sentli program have plans to expand across the Rio Grande Valley?

AR: Right now they are just looking at the Upper Valley, not the Lower Valley.

JR: Okay, what is the process for a local farmer to affiliate with Sentli?

AR: They can email them, they can call them, there's a website, they can go on the website, and they can, uh, just fill in an application. Any new farmer, they just have to make sure that they are using the regenerative farming practices.

RT: How do you see the agricultural industry changing in the RGV? Especially with like this sort of programs.

AR: I think it'll allow more for smaller farms. I travel a lot in the area and a lot of the bigger land areas are being taken up by housing and development so I see it as, as a good thing because you don't need a lot of land to just make a little bit of food, so you can specialize in one or two things, went to a house and the lady next door, the neighbor had some kale, and other vegetables just in their front yard, you know, so I, I see that its moving towards smaller pieces of land being used and this way, this would be a market place in a way for them to be able to sell their product.

RT: So, it's meant to help, like the (clears throat) the individual person that's like...

AR: I think so.

RT: Growing something small.

AR: Yeah, the individual person or the person interested in, you know, trying out farming and they can try it out and maybe they'll learn they'll like it, maybe they'll learn they won't

like it, so I think it's for some people maybe, you know, they wanna do when they're a little bit older or retired, or try something new, um, I think it will be more geared towards any of that.

JR: Okay, what do you see for the future of farming in the Rio Grande Valley?

AR: I guess more smaller farms, um, I don't know how much, I know there used to be a lot of citrus trees and everything like that, I know a lot has been taken down, but I see the future maybe expanding beyond citrus, like being able to grow different kinds of vegetables, things that maybe aren't normally grown here. You can grow something and have it [be] local. I'm originally from Canada, my mom would pick up, uh, grapefruit and it will say from Rio Grande Valley. But you're not going over there and pick up a green bean and say, "Oh that's from the Rio Grande Valley", so trying to grow more produce that can just be used locally that doesn't have to be exported to other places.

RT: So, it's trying to diversify the local markets?

AR: Diversify the local markets, yes, and diversify the diet.

RT: Anything else?

JR: Yeah, I have no, you answered pretty much all the questions that I was coming up in my mind. (Laughs)

AR: Yes, that's good. I hope that helps your project.

RT: It helps a lot.

JR: Yeah, it will.

AR: Okay.

RT: Thank you, thank you very much.

AR: Okay.

JR: Yes, thank you so much for coming.

AR: You're welcome.

Appendix P

Interviewee: Silia Robles

Interviewer: Isaiah Casas

Interview Date: November 3, 2022

Interviewee Location: Donna, Texas, through zoom

Interviewer Location: Alamo, Texas, through zoom

The interview was conducted through zoom on the third of November in the year 2022. The interview lasted 31 minutes and 37 seconds. The interviewee was Silia Robles a member of the CSA who currently resides in the city of Donna, Texas with her family. Silia Robles will share about the time she has not just been in the CSA, but also her encounter and history with the Raygoza Family along with anything she found interesting throughout her time with the CSA and any collaborations of organic farming and the possible future for sustainable agriculture in the RGV and even the world.

Isaiah Casas: Hi, I'm Isaiah Casas from the campus of UTRGV at Edinburg. I'm in the class for Discovering the RGV which is mainly about the CHAPS program that's going to be assisting with you know making book reports on farms and other people in groups that are participating and right now we are going to be going over the Juan Raygoza family and with them I'm pretty sure you know it so right now we are going to be starting at 7:08pm and I guess one of the first questions I want to ask you is...

I.C: Can I please have your name, your age, and where do you currently live?

Silia Robles: I am Silia Robles, I'm 39 years old and me and my family live here in Donna.

I.C: Ok that's pretty cool - that's nice to hear. So, we are going to move on to the second question. How did you meet Juan Raygoza and Shakera?

S.R: We met Juan and Shakera when we my husband and I [kind of] started going on a health journey around 2010. My son was born. He was ill. We started doing kind of just exploring different lifestyles. We started going to farmers markets and we met them at the McAllen Library farmers' market. So, they were one of the families that had just started I think their CSA that year and we just kind of became regulars and we just continued to support them pretty much since then. We have known them [for] about 10 years.

I.C: Alright so that's pretty cool with 10 or 11 years was there like an exact year, like a date like 2000.

S.R: I want to say probably like 2011. I think that's when we first met them. Because my son was born in 2012. And yes, it was probably like 2011, you know what 2012.

I.C: Ok that's good. So what attracted you to being or to participate in the CSA also known as the Community Supporting Agriculture and in a way can you also define what the CSA is?

S.R: Well, we got very interested in just having access to local foods not only because umm well for different reasons. Our first interest was because of organics. So we got interested we started learning about environmental toxins and we started learning the effect of pesticides and herbicides on the health of children. So one for health reasons and for two we started really kind of realizing the much needed support on local businesses on local food sources and we started to try to kind of make our shift from corporate stores we went like on to Walmart ban for like I don't know how many years so it was for different reasons it was for health it was to support local business and also because locally grown food is just so much more denser and you know its goodness and it's just so much better than food that's packaged god knows for how many miles. So those were several reasons that we got interested in the community agriculture. So, we were happy to learn about it and meet them. Does that answer your question?

I.C: Yeah, so for the first part can you also define what CSA is?

S.R: Yeah, so well when we started working with well not working but when we started to join them it was just Terra Preta it was just them. So, at that time I didn't know about all the different community agriculture [about] the different farms that were in the Valley so it was just them so when I heard CSA I only thought of Juan and Shakera. But now I do see you know the CSA is a group of organic farmers that live locally and now I see that a lot of these different farmers do work together and they'll make their own boxes and they'll each have their own little card on their and they provide locally produced vegetables I know the different things. The last box we got I think had mushrooms - it had a variety of mushrooms, and different produce from their particular farms. So, I guess the definition is different local farmers working together to offer produce to people in the community.

I.C: Ok that sounds really nice and thank you for sharing that. So, I guess one of the first official questions What are the methods that you and the CSA have used for organic farming?

S.R: The methods. Well, I don't what do you mean like, our own type of farming or you mean like what I know of what they do?

I.C: What you know of that you do or what they do?

S.R: Ummmm, let me see. I know that they were very big on enriching the soil. I know that in organic farming that was a big they were always really big on soil so I know that soil enrichment I don't know if that's the correct term but I know that they would do a lot of

enriching the soil with compost and I know that they would do crop covers for the soil I know that that's a big thing that they would do. I know that they would also do a lot of I am sorry it is for organic farming or for the CSA I'm sorry tell me again the question.

I.C: What are the methods that you and the CSA have used for organic farming? So, you know it's kind of like putting it together.

S.R: Yeah, it's kind of like a weird question cause it's two things. Ok well I know what the farms do is I know that they're real big ok well soil enrichment, I know they do a lot of crop covers and I know that they do a lot of rotation. They used to talk about doing the companion planting like the plants that I guess deter the different bugs because they wouldn't be using pesticides. But I don't know if that's what you mean but I do know at least as far as organic farming goes. I believe those were some of the methods that the Raygozas would use. In terms of the CSA, what methods they would use to reach the community as far as I know they would just be setting up shop at the farmers markets other than that they would be email lists but there wasn't too much other than that.

I.C: Ok that sounds good and I'm sorry for I guess the question sound weird that was my mistake. Question 3 Was the CSA always interested in organic farming or did they have other goals besides that?

S.R: Well, I know not all of the farms that well most of the farms in the valley that I at least know about um have organic methods like in mind. Like I said Juan and Shakera Raygoza that was one of the things that they were known for that they kind of like brought us that kind of made us go towards them. They were one of the first farms or at least in think one of the first farms to be proud and kind of show that they were using organic methods, and it was organic produce. I'm sure there were others but the farmers market I don't know if you're familiar with them but they'll say sometimes they won't say however for Juan and Shakera that was one of their main points. That their produce was organic and that's how we came to them. Cause you know there were so many different people that are there but that was one of the reasons that we kind of went to them first.

I.C: Ok awesome. Ok question 4 What other CSA activities have you done? So, like have there been any other activities?

S.R: Well, we have participated cause sometimes they'll have ok so CSA activities, so they've had like a farm tours that they have had there but its more they're own thing like it's not kind of like a group of different people farmers here in the valley that get together to have an event. But we have participated in farm tours there at Terra Preta which is Juan and Shakera's farm. I also support the because they also have a nonprofit organization called Sentli I don't know she actually asked me a while back if I wanted to be the secretary of their non-profit and I'm like YAY but oh my god I just haven't had a chance to really

contribute much, however I have been trying to be active but I wish I could do some more but other than that I mean we really haven't been involved in any other activities.

I.C: ok that sounds awesome because I have actually heard about some of those activities. You're spot on from what I know. So, question 5: Currently what would you say is the biggest problem that the CSA has been facing?

S.R: Well, I know that the valley in terms of just kind of like the cities and the zoning regulations and kind of being able to support you know urban organic farming that has been a challenge at least for Juan and Shakera I mean I don't know if you heard but the city of Edinburg was giving them so much grief just to be able to put up high tunnels. They've made it difficult to kind of do something like that and implement certain structure. The city of Edinburg has made it very difficult to allow people to go straight to the farm to buy their produce because apparently you know you need to be a big corporate millionaire business in order to get people to go buy so I think at least when I think of issues and barriers to meeting the needs of the community and really being able to get out there and make it accessible to the community I believe that it's been the cities themselves and the policies and zoning regulations in place that have really given them the biggest grief. I know there's an organic farm in Harlingen I think it's called HOPE and I think there was an issue there because people weren't able to go and buy directly from the farmers because you know there is just so much red tape in order to buy direct and I think that really frustrating because you think it would be so simple just to go straight to the farmer to buy your produce but it's almost like they want to encourage people to go to the middle man like the big chains and it's not right. So, I think the city policies and regulations [pose] big obstacles for CSAs.

I.C: Ok I did not know that the city of Edinburg actually gave them a lot of grief towards the Raygoza family especially over that so that's really interesting to hear. Thank you.

S.R: yeah, they had a go and they had to like they had to go and speak they had people go and they had a protest for them and they had to have my husband he's an engineer he had to go and he had to write like certain letters to kind of be in support of the zone regulation changes so it was a big headache. It was so sad. I mean at the same time the valley is kind of I don't know behind I guess in certain things.

IC: ok question 6 Were there any problems that were present from when you went to visit them, did you see any problems present in the Raygoza's family farm?

SR: No. problems no I mean I would think one concern was like because they have a vision right, they want to be able to get the community to come, they live off of a street that's not too wide and there's not much parking area and I think that was another issue that if you want the community to come they would kind of have to have more safe places for the community to park but at the same time the county would make them pave it and get the

lines on it. It can't be just like a little cute dirt road type of parking lot so I think that would probably be the only problem getting the community to come no parking spots on a road where there's no shoulder. The person would probably just like uhhhh there is no space let me go. But other than that, I mean their area is beautiful, they have so much space, they have lots of animals out there - it's wonderful to walk through. So, no other than that I don't have anything to say in terms of problems

I.C: Thank you. Question 7: Have you gotten involved in any of the farm's projects with the Raygoza family?

S.R: No, like I said they have the Sentli non-profit, and I did volunteer to be a secretary but I haven't really contributed as much as I want to. I know there is a lot of groundwork that goes beyond those nonprofits so not so much.

I.C: Ok. Question 8 What was it the CSA or the Raygoza family that got you interested you interested in organic farming?

S.R: It was the Raygoza family we started going to them because they were the only farmers that we saw that were kind of saying and pledging that they were using organic methods and then they told us hey we're starting a community supported agriculture program do you want to sign up for one of our weekly boxes and at that time it was like yes of course but at the time it was just them it wasn't you know cause a CSA means it's a bunch of farmers kind of contributing but it wasn't anybody else it was just them at that time. Now I know there is a variety of farmers but at the time that we first started it was just them trying to kind of get the ball rolling, I guess. So yeah, I guess it was the Raygozas that got me interested in, that I learned about what a CSA was or what CSA was I don't know

I.C: Yes, I find it really interesting thank you. Question 9 How long have you known about the events at the Raygozas family. What was the first thing you kind of saw that made sure that was organic farming?

S.R: Well, I mean they did have the logo we got to know them, and we would have conversations about the reasoning behind why they were trying to utilize organic methods. So I mean based on just what we saw our conversations that were held that I guess how I would assume I mean I don't know the process they were using like the FDA I'm sorry I mean the USDA logo so I know you can't actually use that logo unless the paperwork has been completed behind it because you can put a sign that says organic but that doesn't mean it. However, they had the actual logo so I'm I don't know but 80% sure that they did the paperwork behind it however I never like saw it or anything to verify but I trusted that they did.

I.C: Okay thank you. Uhh question 10, did the CSA make any visits as of now recently to the farms belonging to the Raygoza family such as the one on Rogers Road or East Canton?

S.R: No uhh, well the one on... no it because like, the one on Rogers Road isn't that I think that's their house. (Acknowledgment from Isaiah) Because they live like on Doo Little on Rogers Road, I think. So, I don't know if now there's an actual CSA boarder or CSA leaders or something, so, I wouldn't know because I-uh go, because when I sign up for my boxes I just go to Juan and Shakira's website which is the Tera Preta website. And then their website, when I signed up for their website Uhm and I signed up for my box and I go to a pickup point I see all the other farm products in it. So, I don't really interact with the other farmers that contribute that are part of the CSA, I pretty much keep in contact with Tera Preta which is Juan and Shakira's farm.

I.C: Okay, okay. Question 11: Besides the Tera Preta organic farm, did you know about any organic farms in the Rio Grande Valley?

S.R: I uh not at the beginning. No, I had no idea. When we first started, we were like going to Costco and getting organic foods. I didn't realize there was a growing movement of local organic sustainable produce and it wasn't until after that I started uhm paying attention. I've been learning about the other organic farms and we started looking into uhm locally- local grass fed meat and local dairy and so that's what we kinda started branching out, but we were never kinda consistently loyal to the other vendors as we were to Juan and Shakera. So, like off the top of my head I wouldn't and I can't even remember the other vendors that we would... because I don't know if you know but at farmers markets, they change... they constantly change uhm and for us we have just kinda of- we've always been able to depend on Juan and Shakera because their presence is continuous and you know they're always trying to improve and grow and make connections to the community. Uhm so no at the time I didn't know about other ven- vendors- members of the CSA, ahh now I do, I do know now of one called the Hour Farm, which is Tomas Padilla. Uhm he-he actually lives in Weslaco, uhm so we do know about him, sometimes we get into... will get into group meetings and he'll be there and talk about how he's trying to do like traditional methods in his farming. But other than that no I haven't- haven't made other connections like Juan and Shakera's.

I.C: Okay! That's interesting because it also sounds like how the Raygoza family is doing something really unique and it's like the start of something. So, that's really interesting to hear from you. Uh question 12, so, did the Raygoza family show anything unique that got you interested in workin-working with them and the Community Supported Agriculture, like in the beginning?

S.R: hmmm Yeah! I mean they were just always so uhm compassionate about- about just the importance of- of not only uhm you know not only uhm you know organic foods or organic produce like just from the health side but from the point of that... hmm you know the parts of

the valley, especially the north parts of the valley... most of the food access they have are like to dollar stores and crappy convenience stores so they are really uhm just well informed on you know the presence of food deserts and how the food quality—food isn't available to certain.. to certain communities of beca—low income communities. So, they're—they're just very compassionate on just so many levels on... and not--- you know like I said the health, the food availability, and you know the sustainability uhm and they're—they go beyond just the farming they are interested in uhm mmh making connections with the university and making connections with the school district and with the school system with the students. Uhm because they have a vision and I=I, because I've gotten to know them, I-I've learned that about them. Uhm I'm pretty sure the other uh farmers do as well, uh however with Juan and Shakera I got to learn that it was really something to appreciate and very inspiring.

I.C: Okay that-tha.. I really loved that question, thank you. I loved how you answered it thank you it was really nice. (audio gibberish of words) Ok, question 13: do you notice any of the differences between the organic crops of the Raygoza farms and the commercial farm crops that you've seen?

S.R: Well, I mean—I can't say that I necessarily—I mean the food is... it's a lot more fre--fresher the taste is... is you can tell in the difference of the taste and the crisp uhm uhm of the vegetables. Uhm, we do a lot of juic—well we would. (Bit of gibberish) I started school 2 years ago and since then I have gone off on my health journey and gained 20 pounds, but we use to do a lot of juicing and there was different amounts--- you could just see the color was different in the beets that they would have uhm, but at the same time just knowing that the food didn't come thousands of miles it came from someone's backyard—you know two cities down, uhm knowing the literature is out there about how the quality of food starts to decay you know the longer its taken and cut from the earth. Uhm so I can't necessarily say that it tastes significantly different however I know that it is. I know that food that's been sprayed with pesticides and insecticides begins to die and its sprayed with poison, so, yes, I will say I do believe that there is a significant difference, I guess I can't taste it as much as I would like to say that I can.

I.C: Okay! Yeah uhh.... Cause I would—uh I've heard that--- I've always heard that you can tatse the difference or... I just kinda wanted to know... (Audio from S.R)

S.R: Ahhhhhh people just say that because they want to make excuses to keep eating McDonalds at eleven o'clock and no it's all the same. No, it's not the same, McDonalds doesn't rot (laughter from joke on McDonalds).

I.C: Alright.

S.R: So....

I.C: Uh question 14, has the CSA and the Raygoza family ever collaborated in terms of being present with one another at farm markets or anything at all?

S.R: Yes, yes. Like I said, the boxes they are giving out right now uhm they do weekly boxes and by weekly boxes that you can go pickup at different places. So, they've really started to collaborate they've even started to collaborate with local businesses. Uhm there's a vegan restaurant in Weslaco, and this vegan restaurant gets their produce from Shakera and Juan, and this place is called the Boocha Bar. They are are—a place--- it's a business where you can go and pickup your boxes there, so it's a pickup center. So, yes, they've made connections with uhm You know local-local restaurants that are using their produce and like I said in the boxes that they have now.. they- they do include other farmers. So, it really is a true community supported agriculture program because it's a variety of farmers contributing to that one box and providing uhm these boxes to the community and whoever is interested.

I.C: Okay, okay. That sounded really interesting thank you! Question 15: do you have any favorite food or good prod--- I mean sorry not food, do you have any good or favorite experiences that were seen at the Raygoza family?

S.R: (background noises talking with a family member) No baby hold on. Uhhm it's the crickets. Any experiences, (audio background noises) oh I really liked their farms, I mean they also have—there's a part of their farm.. have you ever been? (Audio from I.C acknowledgement) Okay you know.. so there's a part of the farm in the front where they have all the fruit trees like a little bit of a fruit forest kinda thing—permaculture I love that. (Audio gibberish) You know—my husband and I got really interested in permaculture and fruit forests for a little bit. Uhm so when we had gone to one of the last tours that we went, we were like great! Everything they had—he had, he was so proud of them and he had all these different medicinal tress and fruit trees and—and so I like how they are combing all these different progressive methods of of of, uh, of food produce and all on—all on their farms, its that's what I like—like that they were able to showcase that. And then they have their chickens and they have the goats in the back, and yeah—its-its great I just--- I like their tours. (Audio from background)

I.C: Alright. (dead air for a few seconds)

S.R: Sorry.

I.C: No, it's okay- it's alright. Uh question 15, uh did you try any of the crops at their farms and what would you say is your favorite crops to eat out of all of them?

S.R: Ohh, I always liked, sometimes they would put a really cool looking cabbage—no cauliflower what was the kind? Like a fib—Fibral Natchez? I don't know if it was Fibral Natchez, it has something to do with sacred geometry I'm not----. It was, yeah, I really enjoyed their—they had like a purple or green type of cauliflower, but it had a very interesting

structure, I can't remember the name of it, do you know what I'm talking about? Uhmm I can't remember what it was called, I keep thinking like Fibril Natchez cauliflower I'm not sure. I like their cauliflower; I like their colorful cauliflowers is what I'll say and sometimes they would put like just vegetables that we just—people don't regularly eat like Bok Choy and you know we would be able to look at those and I would serve them to my kids and my kid knows what Bok Choy is and that's something that uhmm I guess is as commonly eaten I guess and they would include it in the uhm it was- it was as almost a surprise to see what they would put next.

I.C: Oh okay then!

S.R: So...

I.C: Sorry, ok, Question 17: (skipped 16 because it was very similar to an earlier question.) Do you believe that through the CSA organic farming can make a difference in sustainable agriculture after what has been accomplished with Tera Preta?

S.R: Uhhhhh, do I think sustainable agriculture can be accomplish--- well yes! Yes, I do. I think that they're trying their best to model well I mean--- uhmm sustainable practices... I'm trying to remember, so, sustainable practices like uhh... well their—I know that they do a lot of crop rotations so their taking care of not overworking the soil. So, that's something that I know, I believe that they are definitely—they have sustainability in mind just in terms of the soil and itself. Uhm... and I—I know that they- they try to use the wa- water that they have, they try to use it wisely so, I know that they are aware—they are very much aware and cognizant of- of not being wasteful and they utilize a lot of—any waste they utilize it and give it to their animals. So, yes. I think they definitely are contributing to a more sustainable way of producing food and I think they are also incorporating uhmm principals of permaculture and their sustainable farm and I know they have even talked about uhm uhh planting uh medicinal plants that have been used traditionally like within our Hispanic roots which I think—which I'm actually very interested in. Like the old- the old methods of healing that our ancestors have utilized and now I feel like their disregarded. Uhm and we've had conversations about that all. So, medicine wheel gardens and sacred gardens. Uhm so definitely I think that—definitely have sustainability in mind and I think that they work towards uhm to continue sustainable methods for the—for the farm and for the community.

I.C: Okay thank you! That was really interesting. Well, that question and all. Uhh question 18, what are your thoughts on the future of farming in the Rio Grande Valley? And do you see any trends that we should be aware of? Do you also think that more farmers or also getting involved with organic farming?

I.C: Ohh, I yes! I think that the valley is definitely starting to uhm become more progressive in- in terms of farming. There's- there's just so many different markets now that I believe—

because we started doing—we started becoming interested in this 10 years ago and now I feel like there's just markets everywhere all the time its so many people and I fee like the discussion of- of the importance of organic food- I mean not everybody talks about it right. I go to work and hey guys—and people sometimes don't want to hear it, and people are like ahhh it's the same, you want me to spend more money. Uhm however the conversations that I think are he- I think are being held more. I think that there's more choices, I think that there's more support for it. Uhhm and not just organic farming, you know uhm the-the dairy the local dairy, the local meats, the local chickens, the local cheeses, I- I do believe that the movement is growing, and more people are talking about it, and it's becoming more... I guess available because I think that sometimes people think that it's too expensive or too difficult to reach out or find. So, yes, I think the valley is definitely in—is definitely ... ah what is it, is definitely growing wi- within this I guess this movement or whatever. Uhm but there's still a lot of work to do. We have a lot- we have heavy programing in the Rio Grande Valley. (Audio gibberish).

I.C: Ok, question 20: (19 was also a similar question to an earlier one so 19 was skipped) how do you think the future of farming will look like in terms of organic farming in the RGV in the next decade or so?

S.R: Oh well I think- I think if the community outreach connections to the schools, more connections to families, making that connection to like how organic farming is not just about oh I'm eating more greens, but how it can literally be a connection to improved health, improved state of mind, improved connection to the earth and improved connection to our spirituality, I think that if those conservations are had more in (gibberish audio) people's programming starts to shift I think- I think it could definitely have such a great impact, especially on the younger people who are kinda more I guess in tune with these things. Uhm but I definitely think it- it ca- it will have a great impact with every- with every year that passes, so.

I.C: Okay. Thank you uhhm those were all the questions that I actually had uhhm you know I really liked it; I really enjoyed all your answers you shared. And yeah! I don't know if you have anything else to say to.

S.R: Look! (Shows picture of a green cauliflower) This is the cauliflower that I was talking about.

I.C: Ohh okay! That looks nice! I didn't see it on the farm when I went to visit, but it- it's nice to see.

S.R: Romanesco! I was wrong. What the heck was I thinking about fibral natche? I think that has something to do with numbers or geometry, oops. Yeah that's the one I was talking about, that was- I would always look forward to that cauliflower. So, uhm ...

I.C: Okay!

S.R: Yeah okay! Well then (audio gibberish between both I.C and S.R) I wasn't sure about some of the questions. I looked at the first ones, then I, I didn't realize there was so many. I think I did fine, even though I winged it towards the end. (Laughter from S.R)

I.C: Awesome, Awesome. No, you did great! Fantastic. But other than that, thank you! Uhm for th- this recording and this interview I actually really enjoyed it I thought it was going to go like wrong or anything. But no! I really liked it. Thank you.

S.R: So what do you do? You're, you're part of the—you work with-- part?

I.C: I'm in the class for the Discovering the RGV, and—

S.R: Discovering the RGV, oh ok.

I.C: I'm not in the CHAPS program, but I'm assisting the CHAPS program in getting like some interviews done and get some reports on uhh not just on traditional farms but organic farms as well/ And were-- its gonna be part of this series of book reports done about farms called "Un Porción de Edinburg".

S.R: Ohh that's nice. Cool. Okay. Well, that sounds great, I hope it goes well.

I.C: Okay well, other than that uhm I hope you enjoy uh the rest of your day and afternoon and I'll conclude this meeting.

S.R: Alright Isaiah. Thank you so much! Let me know if you need anything else (audio gibberish between I.C and S.R)

I.C: Thank you Ms. Silia Robles and Bye!

S.R: Bye!

Appendix Q

Interviewee: Nadia Casaperalta

Interviewer: Jackie Moran

Interview date: November 4th, 2022

Interview location: C.H.A.P.S. building in Edinburg, Texas

This interview was conducted in person at the C.H.A.P.S. building in Edinburg on November 4th, 2022. The interview lasted approximately 18 minutes. The interview was with Nadia Casaperalta. Nadia was the SALT chef for two years and was Juan Raygozas' contact for buying organic vegetables from Terra Preta for the SALT restaurant.

Jackie Moran: Testing, testing, seeing if everything works. Today is Friday November 4th, 2022. My name is Jackie Moran, and I am a student at UTRGV in Edinburg, Texas. I am here today with Nadia Casaperalta, conducting an oral history interview for our university class titled Discovery the Rio Grande Valley, as we researched Raygoza family and the Terra Petra Farm and their farming family Legacy in Edinburg, Texas, let's begin. So, my first question is, could you state your full name for me, your date of birth and today's date?

Nadia Casaperalta: Nadia Casaperalta 09-01-1988, today's date is November 4th, 2022

J.M: How did you meet Juan Raygoza?

N.C: The first time I came across Juan was at a farm table dinner, in Edinburg, actually in the city of Pharr. The food bank was hosting it and the restaurant at the time Salt was doing the meal for it. Farmer Chris Bueno introduced me to Juan and said this is a new farmer he is working on some really cool cucumbers, and I was like I'm so excited I can't wait to go hang out and see what your cucumbers look like.

J.M.: Have you always cooked with Organic veggies?

N.C.: You know I grew up in a Rancho in Mexico and it doesn't get as organic as our Antepasados. And growing food like your Antepasado right? Which means no pesticides and just using the compost from the decay of the land. So, I want to say I grew up eating from the land organically. It wasn't until my career that I started understanding the processes of what made something organic and what made something engineered or manipulated or enhanced. So I think I got the taste for it early on.

J.M.:Can you tell the difference between organic and non-organic?

N.C.: Nowadays, yes! I think I've developed my palette enough. My favorite thing to tell my students is, you don't understand the flavor dynamic because when you go to the grocery store, you see the banana selection for example. Right, you can picture the banana section in your head right now. Everybody can do it, like whoo - I see it! and you see \$0.69 cents and then \$0.39 cents. Nowhere in that scope is flavor attached. Right, and of course to those of us that are you know single families or have different incomes the \$0.39 cent bananas are going to be tasty no matter what. because they're cheaper and the important part is that there is a significant difference in water content and fiber's structure and so now I can tell when

I'm eating a jalapeno that's been you know hasn't had pesticides or hasn't been enhanced versus one that has, you know, has been through a larger farm or a processed farm.

J.M.: I know that you touched upon this earlier. Where are you from?

N.C.: So, I grew up, I was born in Mexico, in Canatlan, Durango. Actually, the city is known for its manzanas. The little, tiny town there's like a beauty pageant Miss Manzana, if you will. So, every year, not only does a farm showcase their best apples or best crab apples and their best quince. What's quince? I forgot the Spanish name. But it's Quince right and I grew up eating pears and apples from the orchard that were everywhere. So, I immigrated to the United States in 1996, with my mother and my sister to Elsa. I grew up in Edcouch-Elsa, a very big agriculture area as well. Grew up eating sugar cane and you know might have taken corn from those fields. Haahahaha! Yes! Document it! Charge me now.

J.M.: Bill it to S.T.C.! Hahaha!

J.M.: Where did you train or go to school?

N.C.: So, again, I'd like to credit the people that taught me how to have a passion for culinary. Which for me is, my mother and my grandmother. But I've always said I trained with my mother, she is the toughest chef I've ever worked for. She would put me to dice up *chile, tomate y cebolla*. I would be like, *Ahi esta listo*, she would be like, MAS PICADITO! I would be like OH MY GOD, MOM! But I got my official training at The Culinary Institute of America in San Antonio, in 2014. And so classically French trained that is where I got my official Associates of applied science in culinary.

J.M.: How long have you been in the Rio Grande Valley?

N.C.: I've been in the valley, before I left in 2010. I went to school in Michigan. Guess what, another big farming area, Kalamazoo. Where there are cherries and you pick your own blueberries and there's a lot of Migrant communities up there. And I left, I like to say I dissa-queered. I was like there's no gay people in the Valley. So, I left. And I recently came back in 2016 and I decided to stay and get acquainted with the valley again and maybe make some different memories. Uhm, and I've been here ever since. So, what's that like eight years now? Right! Whooo! And I love it.

J.M.: What are your menu specialties? What are your specialties?

N.C.: My specialties, believe it or not, I know people are like whatever. Are vegetables, I love vegetables because no offense to the beef guys ok, vegetables are harder to sell. And they are so cool, the way you can manipulate vegetables and showcase them and make them the protagonist of a dish, is truly an Art. I didn't want to do the easy life meat and potato, like you just put salt and pepper on steaks and steak on its own is delicious - doesn't need a lot of dress up. To get a kid to eat eggplant to get a senior to eat like a yellow bell pepper. That is where I feel my purpose is, to really understand like there's an intimacy between me and vegetables. Do I slice it really thin? Do I cube it, do I roast it, do I puree it? There's so much more mystery to a vegetable and each and everyone. that you kind of continue to keep

learning about them as you work with them. Well as you do any other meat it's very linear. That Is my specialty.

J.M.: What are the other local suppliers that you buy from?

N.C.: I just bought a really cool squash, called the Tromboncino. It's an Italian variety that grows in a circle. From Hub of Prosperity here in UTRGV. I have bought a lot of stuff from farmer Dianna and Saul, out in Yah Weh farms, of course farmer Chris Bueno, shot out to him. Now at Rio Fresh Farms, even though it's a big retailer now I make sure to look at like where you know the stuff I do get at HEB it's coming from. Another one is little bear farms which does supply a lot of amazing watermelons to HEB and of course Terra Preta. I'm trying to think of, oh I just bought some nopales to from farm collective out in Brownsville that services a farmers' market so it's, it's like four different family community farms and then they all get together and sell at the farmers market and so I bought a bunch of nopales from them. Anytime I can One Up Mushrooms is another one too, I just bought some beautiful chestnut mushrooms. Anytime that I can support. I do, It's important to.

J.M.: Could you tell me a little bit about the restaurant Salt and your experience there?

N.C.: Yeah! So, I ran SALT for about two and a half years. Under the direction of Chef Larry, my mentor, the ethos of salt is local. Not, not loco! Local, hahaha we were a bunch of crazies in there. So, the ethos is, how do we highlight the area of the Rio Grande Valley through recipes and through produce? Right, the way you look at the menu especially when they're chef driven menus, you look at the story of the chef. right so chef Larry's from Edinburg and his family is of migrant worker family, so of course highlighting Farms was just the nature of the menu development. He made it a point to make sure to highlight farms in the area. That would and could be the source of the menu inspiration right. So, they go hand-in-hand his story, the farms and narrative of the cuisine in the Rio Grande Valley. So, you saw *Mollejas* on the menu, but you know maybe a different technique, with a French technique, you saw Pan De Campo on the menu, you saw quail. Again, because we have a big quail, well we eat quail in the Valley. Maybe not now so much now and so my role was to continue that concept and be creative in that way so how do I then add to that narrative and become inventive with the seasonality of the farmers and their produce.

J.M.: How frequently would you buy, purchase organic vegetables from the Terra Preta farm? Weekly, bi-weekly, daily?

N.C.: So, we try to do [buy] every two weeks. I would be on a text chain with Shakera, Juan's wife, and they would tell me. Hey, we have broccoli, we have oh my god what's it we have Romanesco. They grow really beautiful Romanesco, we have cucumbers. We have this and that. How much of each do you want? And then I would say, give me ten of this, ten of that and then of that. It became a point where Juan and Shaquita were doing farmers markets. Then they would go to the farmers market and again, think back of that banana picture that I painted for you. It's hard to go to a farmers' market and buy amazing cucumbers for three ninety-nine a pound, when HEB has big farm cucumbers for three for one dollar. So, every farmer's market, at one time they came said do you need anything? Do you need anything for the weekend? We just left the farmers' market, we didn't sell much. And so, from that moment on I said, whatever you don't sell at the farmers market, you

bring it over to the restaurant. As chefs we have a responsibility to our farmers to our purveyors, to continue to make the money. Our job is to create and be inventive and innovative, so that we can then either educate through the pallets of our guests or through the stories of farmers to our guests. Uhm, for responsible consumption, Right! I'm not going to be like, well they didn't, they couldn't sell their cucumbers so now we made a margarita with it and that's how you gotta buy it. No, no, no. It's, how do I tell you the story of it, man the way they grow these cucumbers and they just snap and here, have a slice and just with a little bit of salt taste it. Isn't that different? Isn't that! Doesn't that blow your mind? And the guest is going to be like, Oh my god, that does blow my mind! And then I'm going to invite my *fulanito*. That's like no dude, you gotta try this cucumber margaritas they are the best! Now the tequila doesn't even take full front, it's the cucumber juice that does. Right! Why? Because it comes from this land, now I am giving you valley terroir, which we call the essence of the earth. Terroir is a French term, but it's la tierra, Tierra Preta, right! It's *en la tierra*, that's what you are tasting. So, my job was to say, I don't know how I am going to sell twenty pounds of Romanesco. That's my job to figure it out, right! That's my research, that's my job, if I puree it. If I do. One of the reasons I was so successful was again because I have a background in vegetable creation, right. So, to me veggies weren't just to steam them and add butter *y ya!* That's where I think I excel as a chef there. I roasted them, I pureed them, and I turned them into soup. We even did ice cream at one point. We made margaritas and we made sorbet. It was the farm being highlighted all around the menu, not just like, oh a side of veggies from the farm.

J.M.: Ok, I am just curious. What flavor of ice cream was made?

N.C.: Uhm, we did squash. We candied squash, you know the calabazas in Mexico, they crystallized them, we did that. So, we candied some squash from the farms and then we made them into ice cream. So, it was like, like calabazas ice cream and then we served it with squash blossom, cinnamon sugar. Which the squash blossoms too, Dianna was like, I have twelve dozen squash blossoms and I don't know what to do with them. I was like bring them, just bring them I will figure it out. I dehydrated them and I turned them into a fish seasoning like fish, scallops, shrimp and stuff.

J.M.: Where do you work now and what do you do there?

C.P.: So after you know running SALT. I helped open up Salome, that was my fourteenth restaurant. I realized I was seeing a shift in the industry, where I was needing to train. There comes a point in a chef's career where you either move up to own your own place or you stay at someone else's place doing the same thing. For me, growth is very important. One of the biggest important ethos for me, how am I going to continue planting seeds for food passion? Right. I don't want to make chefs that are like, yeah, I want to go on T.V. and beat everybody. How do I create a community of chefs that are mindful that are responsible for their consumption? Meaning they are sourcing from local farms, educating our customers. How do I do that? If I can educate my customers here at the restaurant but then it closes. How do I do that in masses? The opportunity to be a chef instructor at the community college in S.T.C. presented itself. It was a big, ahhh, I am going to leave the kitchen behind. But it was an opportunity to then teach this ethos, and tell my students about the farms, and let them taste. So, they don't have to wait until they go to a restaurant that has this at the forefront. I am a chef instructor and loving it, at South Texas College.

J.M.: Thank you for being a force in the Rio Grande Valley for healthier eating options. That's it for the interview, you were fabulous. Thank you.

N.C.: Thank you, of course.

Appendix R

Vol. 29.

No. 611.

In the name of the State of Texas.

To all to whom these presents shall come, know ye,
 I, S. W. P. Lanham, Governor of the State aforesaid,
 by virtue of the power vested in me by law, and
 in accordance with the laws of said State, in
 such case made and provided, do by these presents
 grant to Plutarco de la Vina his heirs or assigns
 forever, Six Hundred and Forty (640) acres of land,
 situated and described as follows:

In Hidalgo County, known as Sec No 248, T. 1 N. R. 1 E.
 Co. 10, but No 125, about 20 miles N. E. from the town
 of Hidalgo, said land having been purchased and
 fully paid for in accordance with an act of
 1895, 1897 and April 19, 1901. Beginning at a sta-

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N

on the S line of a Sur called San Laltador del Nule,
 the N. E. cor of Sec 248, Strip 120, Texas Mex. Ry Co. for the
 N. W. cor of this Sur. Thence S 74° W. with C. B. said Sur
 248-1900 vrs to its S. E. cor and the S. W. cor hereof.
 Thence S 80 3/4° E. 1900 vrs to a sta the S. W. cor Sec
 247 by this Strip for the S. E. cor of this Sur.
 Thence N 74° E. 1900 vrs to its N. W. cor and N. E. cor
 hereof. Thence N 80 3/4° W. 1900 vrs to the place of
 beginning.

Whereby relinquishing to him the said Plutarco de la
 Vina and his heirs or assigns forever all the
 right and title in and to said Land heretofore
 held and possessed by the said State, and I do
 hereby issue this Letter Patent for the same.

In Testimony Whereof, I have caused the Seal of the
 State to be affixed, as well as the Seal of the
 General Land Office. Done at the City of Austin on
 the Eleventh day of May in the year of our Lord
 One Thousand Nine Hundred and five.

S. W. P. Lanham
 Governor

John J. Ferrell
 Commissioner of the General Land Office.

Piled for record this the 22nd day of May A. D. 1905 at
 10 O'clock A. M.

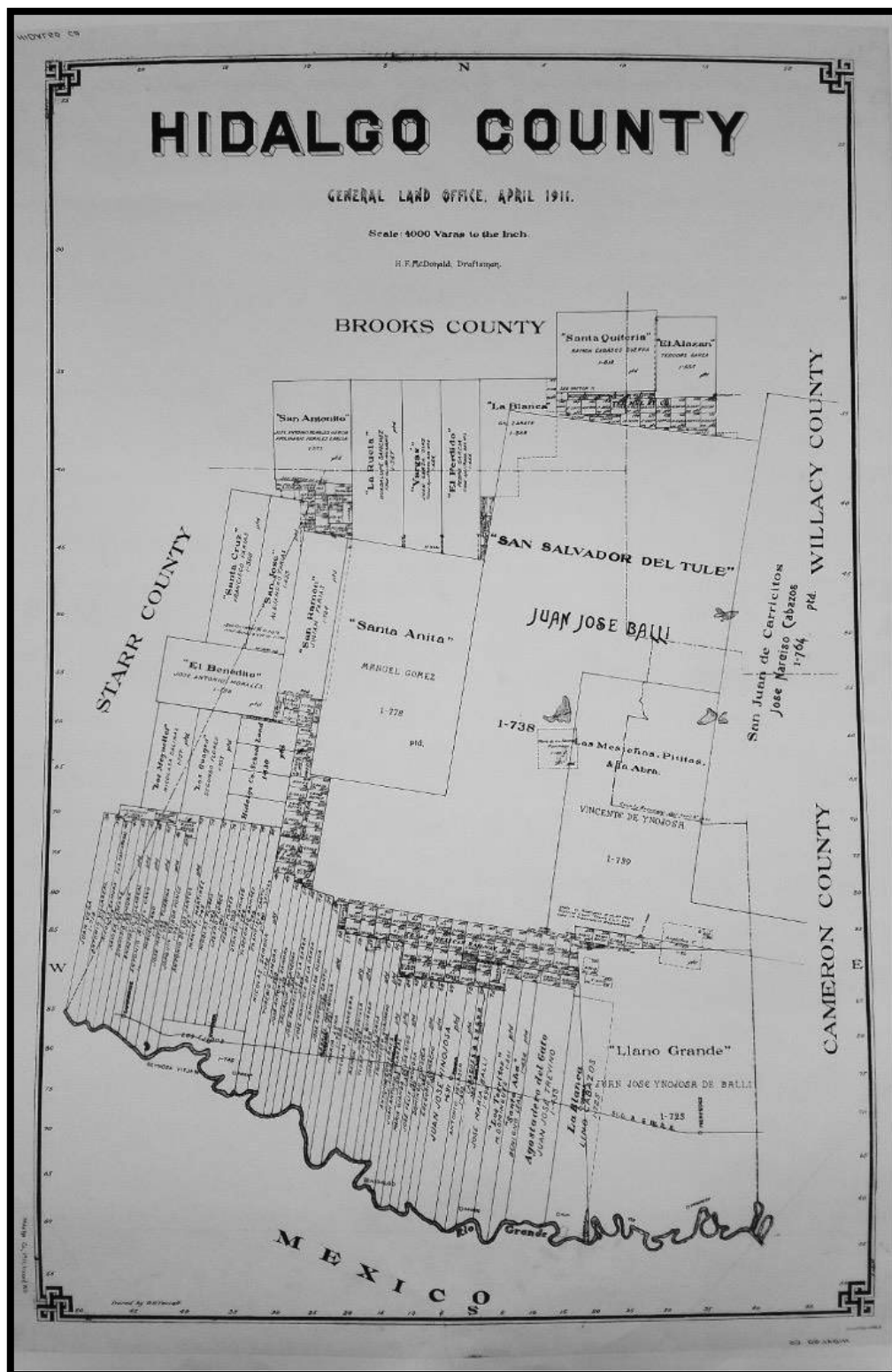
A. E. Chavaz
 Clerk of the Hidalgo Co. Texas.

Recorded May 22nd 1905 at 11:45 O'clock A. M.

A. E. Chavaz, County Clerk.

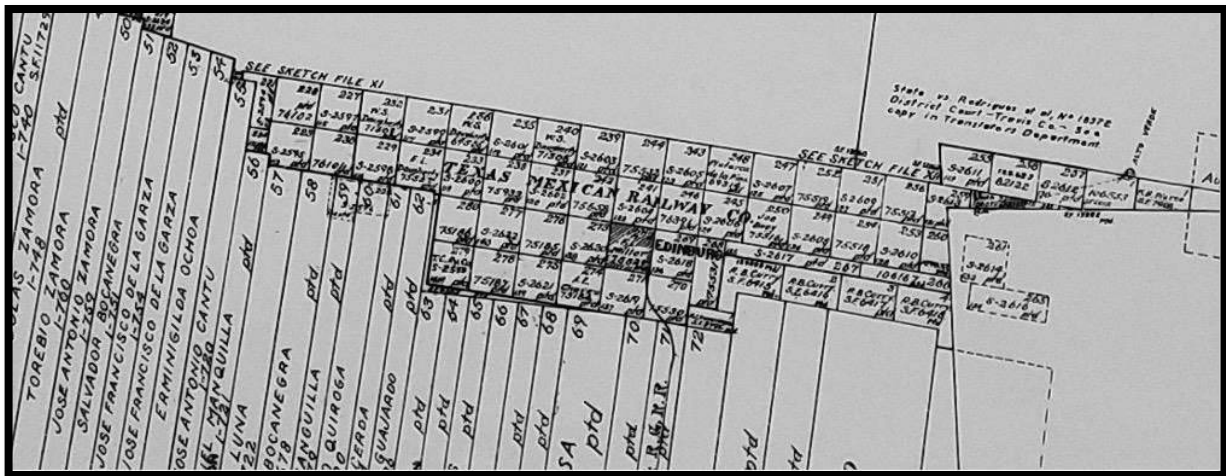
Plutarco de la Vina purchased Section 248 from Texas Mexican Railway survey May 22,
 1905, Hidalgo County Courthouse Records, Edinburg, TX, No. 611, Vol. 29, pages 13-14.

Appendix S

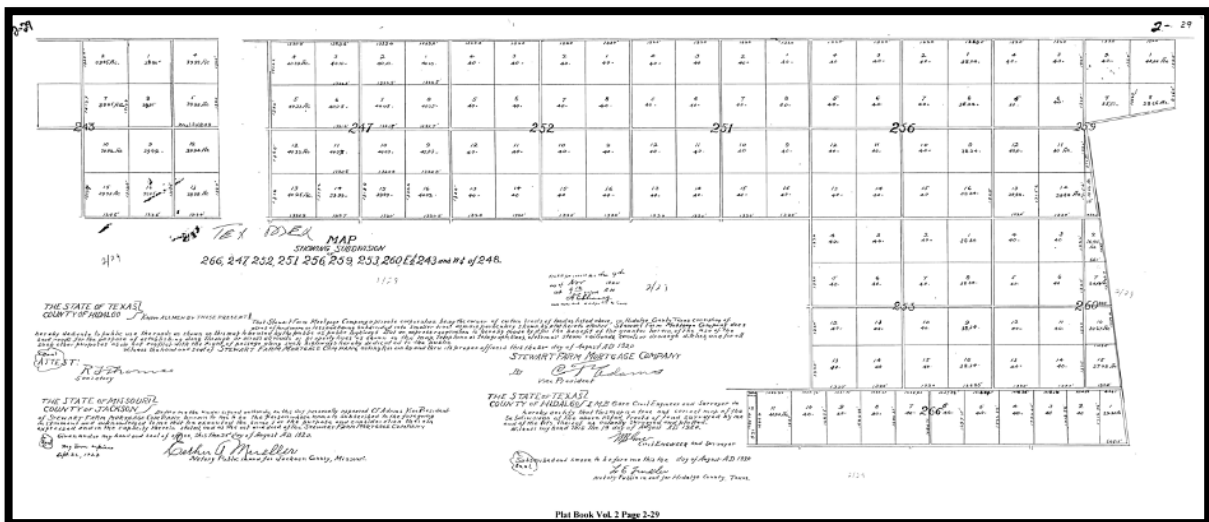


Hidalgo County Porciones Map, Texas General Land Office Map # 66863 dated April 1911
 – includes Texas Mexican Railway survey at Edinburg, Texas

APPENDIX R - CONTINUED

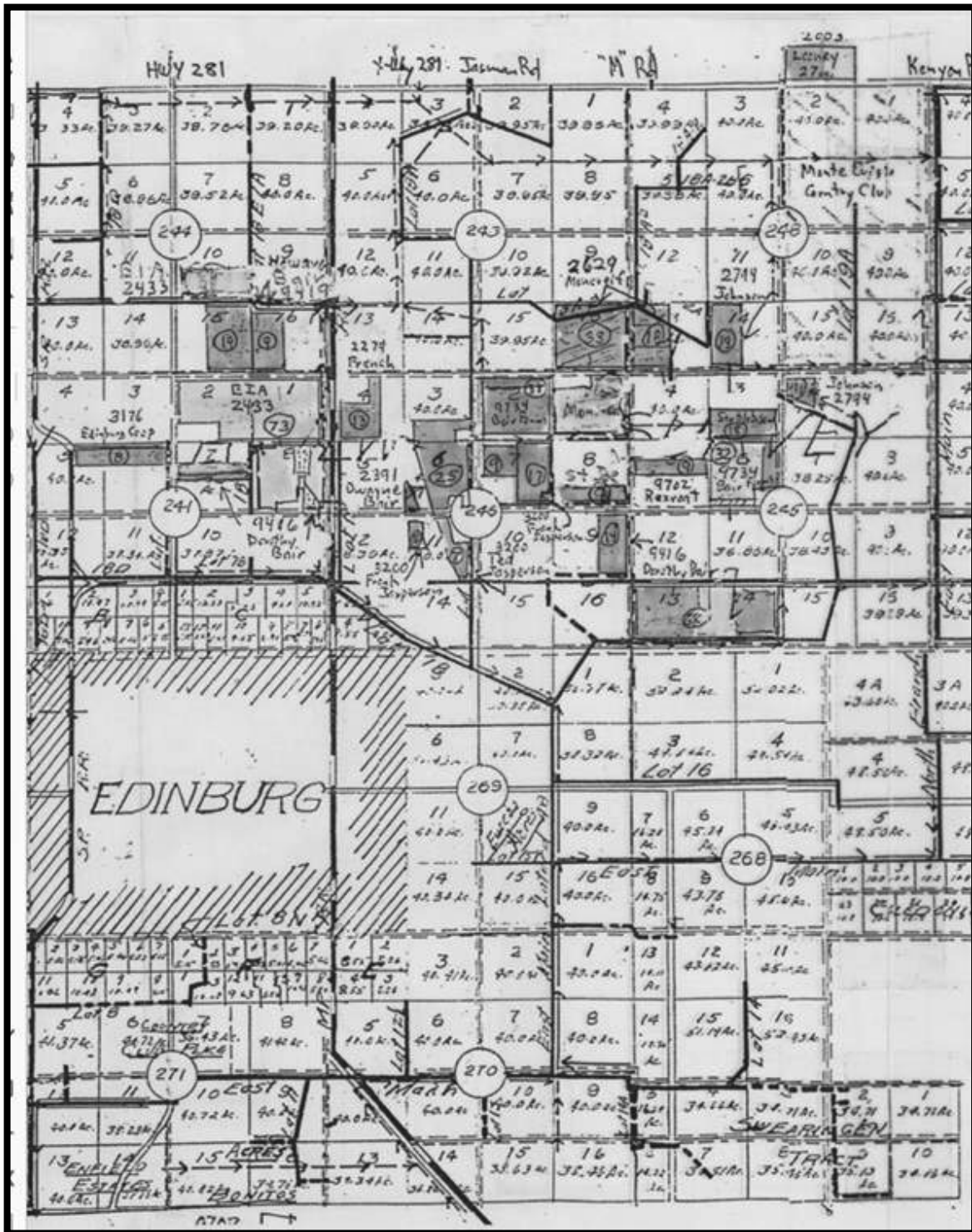


Enlarged Texas Mexican Railway inset to show Section 248 northeast of the center of Edinburg.



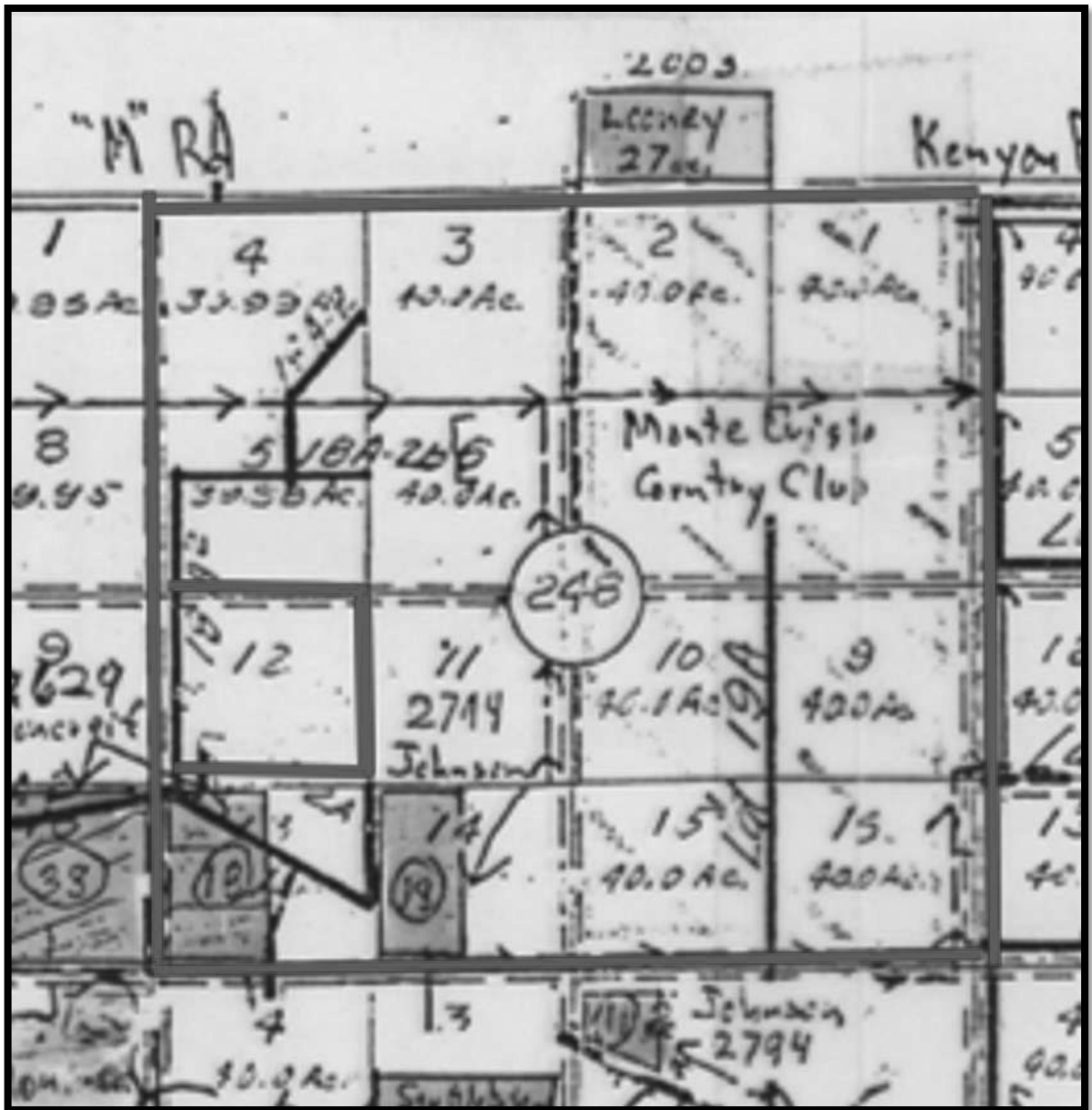
Texas Mexican Railway survey showing subdivision sections found in Hidalgo County Deed Records Vol 2 page 2-29.

Appendix T



Texas Mexican Railway survey to show central Edinburg Courthouse Square as related to Lot 12 Section 248, Map found in Vol. 2 Page 29 Hidalgo County Deed Records.

Appendix S - CONTINUED



Texas Mexican Railway survey showing full Section 248 with Lot 12 outlined. Map found in Vol. 2 Page 29 Hidalgo County Deed Records. The Raygoza property is in the western half of Lot 12 containing approximately 19.97 acres.

OF

Warranty Deed Plutarco de la Vina to Jose G. Garza.

The State of Texas, County of Hidalgo: Know all men by these presents, That D. Plutarco de la Vina, of the said County of Hidalgo and State of Texas, for and in consideration of the sum of Three Hundred and Twenty (\$320.00) Dollars, in lawful money of these United States, to me in hand paid by Jose Garza the receipt of which is now hereby confessed and acknowledged, have granted, bargained, sold and conveyed and by these presents do grant, bargain, sell and convey unto the said Jose Garza of the County of Hidalgo and State aforesaid all that certain tract piece or parcel of land lying and being situated in the said County of Hidalgo and State of Texas, and being, composing and forming part of that certain larger tract or grant of land commonly, generally and especially known as and called Section Number Two thousand and forty eight (2488) Certificate No. 125, originally granted to the Tex. Mex. Railway Co., and about 32 miles N. E. from the Town of Hidalgo.

The interest herein intended to be conveyed and now hereby conveyed being Three Hundred and Twenty (\$320.00) acres of land more or less, out of said Section No. 2488, together with half of all improvements thereon, and more particularly bounded and described as follows to wit:

Beginning at a stake on the S. line of a survey called Plan Salvador del Rio, the N. E. cor. of Sec. 243 Scrip. 23 Texas Mex. Ry. Co., for the N. W. cor. of this Sec. Thence S. 74° W. with C. B. and Sec. 248, 1900. rods to the S. E. cor. and the S. W. cor. hereof. Thence S. 80 3/4° E. 1900 rods to a sta. the S. W. cor. Sec. 247 by this scrip for the S. E. cor. of this Sec. Thence N. 94° E. 1900 rods to the N. W. cor. and N. E. cor. hereof. Thence N. 80 3/4° W. 1900 rods to the place of beginning.

Said larger tract or grant of land known as Section No. 2488 is composed of 640 acres of land and

Warranty Deed Plutarco de la Vina to Jose G. Garza 320 acres for \$320 of the Texas Mexico Railway survey Page 104-105 Hidalgo County Deed Records June 28, 1905.

Appendix U - CONTINUED

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 was acquired, by me from the State of Texas, by Patent No. 511, and Vol. 29, issued by the Secy of said State on the 11th day of May, A.D. 1905, and recorded on pages 13 and 14 of Vol. 16 of the Real Estate Records of Hidalgo County, Texas.

To have and to hold all and singular the above mentioned and described premises together with all the rights, members, hereditaments and appurtenances thereto in any way belonging unto the said Jose Garza, his heirs and assigns forever, and I do hereby bind myself, my heirs, executors and administrators, to warrant and forever defend all and singular the said premises unto the said Jose Garza, his heirs and assigns against the claims of any and every person whomsoever lawfully claiming or to claim the same on any part thereof.

In testimony of which witness my hand this the 28th day of June A.D. 1905.
 Signed and delivered Plutarco de la Vina
 in the presence of
 W. B. Barton

The State of Texas, County of Hidalgo. Before me, J. R. Alarico, a Notary Public duly commissioned and qualified, in and for Hidalgo County, Texas, on this day personally appeared Plutarco de la Vina, well known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and considerations therein expressed.

Given under my hand and seal of office this the 28th day of June A.D. 1905.

J. R. Alarico
 Notary Public, Hidalgo Co., Texas.
 Filed for record this the 28th day of June A.D. 1905 at 2:00 P.M.
 A. C. Bohan, Clerk, Hidalgo Co., Texas.
 Recorded February 23, 1906, at 10:00 A.M.
 A. C. Bohan, County Clerk.
 By A. N. Velazquez

Warranty Deed Plutarco de la Vina to Jose G. Garza 320 acres for \$310 of the Texas Mexico Railway Page 104-105 Hidalgo County Deed Records June 28, 1905.

Appendix V

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WARRANTY DEED

With Single and Wife's Separate Acknowledgment

I. V. Sies

TO

H. M. Sies

THE STATE OF TEXAS
County of Hidalgo

KNOW ALL MEN BY THESE PRESENTS:

that I, Lillian V. Sies, a widow

of the County of Potter, State of Texas for and in consideration of the sum of SEVENTY FIVE HUNDRED DOLLARS (\$7500.00) DOLLARS

to me in hand paid by H. M. Sies, the receipt of which is hereby acknowledged, and the assumption of the existing indebtedness on said land, as follows:

have Granted, Sold and Conveyed, and by these presents do Grant, Sell and Convey unto the said H. M. Sies, a single man of the County of Oklahoma State of Oklahoma all that certain lot, tract or parcel of land situated in Hidalgo County, Texas, and particularly described as follows:

The westerly one half ($\frac{1}{2}$) of lot No. Twelve (12) in Sec. No. Two Hundred Forty Eight, (248) containing Nineteen and 97/100 (19.97) acres, more or less, including the parts thereof underlying roadways and canal rights of way easements for which are hereby specifically reserved, and allowance for which has been made in fixing the price herein named, said Section No. 248 having been originally patented by the State of Texas, to Plutarco de la Vina, by Patent dated May 11th 1905, recorded in Vol. "N" page 13, Deed Records of Hidalgo County, Texas, the land hereby conveyed being more particularly described as bound on the North, South and West by the North, South and West lines respectively of said lot, and on the East by a line extending from its North to its South line exactly halfway between its East and West lines.

Lilian V. Sies sells the western half of Lot 12 of Section 248 Texas Mexican Railway survey to her son HM Sies for \$6,500 on May 10, 1931.

Appendix V - CONTINUED

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TO HAVE AND TO HOLD, the above described premises, together with all and singular the rights and appurtenances thereto in anywise belonging unto the said L. M. Sies, a single man, his heirs and assigns forever. And I, do hereby bind myself, my heirs, executors and administrators to WARRANT AND FOREVER DEFEND, all and singular the said premises unto the said L. M. Sies, a single man his heirs and assigns, against every person whatsoever lawfully claiming or to claim the same or any part thereof.

But it is expressly agreed and stipulated that the VENDORS LIEN is retained against the above described property, premises and improvements until the above described note and all interest thereon are fully paid, according to the face and intent thereof, when this deed shall become effective.

WITNESS my hand and seal at Marillo, Texas this 10th day of May A. D. 1931.

Witnesses at Request of Grantor:

Lillian V. Sies

THE STATE OF TEXAS, I

County of Potter

Before me, Georgia Moore Notary Public in and for Potter County, Texas, on this day personally appeared Lillian V. Sies, a widow known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 10th day of May A. D. 1931.

THE STATE OF TEXAS Notary Public in and for Potter County, Texas.

County of Potter

Before me, Georgia Moore Notary Public in and for Potter County, Texas, on this day personally appeared Lillian V. Sies, a widow known to me to be the person whose name is subscribed to the foregoing instrument and having been examined by me privily and apart from her husband, and having the same fully explained to her, she, the said

acknowledged such instrument to be her act and deed, and declared that she had willingly signed the same for the purposes and consideration therein expressed and that she did not wish to retract it.

Given under my hand and seal of office this 10th day of May A. D. 1931.

THE STATE OF TEXAS

County of Potter

Before me, Georgia Moore Notary Public in and for Potter County, Texas, on this day personally appeared Lillian V. Sies, a widow and her husband known to me to be the persons whose names are subscribed to the foregoing instrument and acknowledged to me that they both executed the same for the purposes and consideration therein expressed and the said

having been examined by me privily and apart from her husband, and having the same fully explained to her, she, the said Lillian V. Sies acknowledged such instrument to be her act and deed, and she declared that she had willingly signed the same for the purposes and consideration therein expressed and that she did not wish to retract it.

Given under my hand and seal of office this 10th day of May A. D. 1931.

FILED FOR RECORD, this 10th day of June A. D. 1931, at 11:22 o'clock, A. M.

By O. V. Bridger Deputy, E. W. Lumburg Clerk, Clara County Court, Hempstead County, Texas.

RECORDED this 10th day of June A. D. 1931, at 11:25 o'clock, A. M.

By O. V. Bridger Deputy, E. W. Lumburg Clerk, Clara County Court, Hempstead County, Texas.

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Lilian V. Sies sells the western half of Lot 12 of Section 248 Texas Mexican Railway survey to her son HM Sies for \$6,500 on May 10, 1931.

Appendix W

18717
W. M. SPARROW
TO
LILLIAN V. SIES
WARRANTY DEED
STATE OF TEXAS, |
COUNTY OF HIDALGO | ss.
KNOW ALL MEN BY THESE PRESENTS, That I, W. M. Sparrow, (having no homestead

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claim to the within described land) of the County of Jackson State of Missouri, hereinafter styled "Grantor," for and in consideration of the sum of Ten (\$10.00) Dollars, cash in hand paid by Lillian V. Sies of the County of Hidalgo, State of Texas, hereinafter styled "Grantee," and for other good and valuable consideration, receipt whereof is hereby acknowledged.

HAVE GRANTED, SOLD AND CONVEYED, and by these presents do Grant, Sell and convey unto the said Lillian V. Sies of the County of Hidalgo, State of Texas, the following described property situated in the County of Hidalgo, State of Texas, to-wit:

FIRST: The South Eighteen and 11/100 (18.11) acres of Lot Number Thirteen (13), Section Number Two Hundred Thirty-five (235), said Section 235 having been originally patented by the State of Texas to Texas Mexican Railway Company by Patent No. 106 dated September 24, 1864, recorded in Volume 13, at pp 487-488 Deed Records of Hidalgo County, Texas.

SECOND: The easterly one-half of Lot No. Twelve (12), Section No. Two Hundred Forty-eight (248), containing 19.97 acres more or less, said Section No. 248 having been originally patented by the State of Texas to Plutarco de la Vina, by patent dated May 13, 1905, recorded in Vol. "N" Page 13 Deed Records of Hidalgo County, Texas.

This conveyance is made subject to all existing incumbrances of record and to the rules and regulations governing the supplying of water by the Hidalgo County Water Control and Improvement District Number One (1).

This conveyance is made further subject to the terms and provisions of said water contract insofar as the same is applicable to the land hereby conveyed and runs with the title to said land, and the Grantee so accepts this conveyance and adopts and assumes the lien upon said land securing the water rents and charges thereon, as set out in said water contract, as a valid and existing lien upon said land, and obligates himself, his heirs and assigns, to pay water rights and charges as and when the same accrue and to observe all other terms and provisions of said water contract.

As a part of the consideration thereof, the Grantee herein assumes and agrees to pay when due, all State, County, Drainage and all other taxes whatsoever, beginning and thereafter, and all water rentals, taxes and charges whatsoever which may accrue or become due or owing upon said land and premises, hereby conveyed, beginning and thereafter.

TO HAVE AND TO HOLD, the above described land and premises, together with all and singular the rights and appurtenances thereto in anywise belonging, unto the said heirs and assigns; and I do hereby bind my self, my heirs, executors and administrators to WARRANT AND FOREVER DEFEND, all and singular, the said land and premises unto the said heirs and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof save and except as to the reservations, agreements and liens, contained and provided for in said water contract as to water rights conveyed therein, as to liens, taxes and water rentals and charges, and other things herein assumed by Grantee, as aforesaid.

WITNESS my hand this 28th day of January A. D., 1930.

W M Sparrow

SINGLE ACKNOWLEDGMENT.

THE STATE OF MISSOURI
COUNTY OF JACKSON |

Before me, the undersigned authority, on this day personally appeared W. M. Sparrow, known to me to be the person whose name is subscribed to the foregoing instrument and he acknowledged to me that he executed the same for the purpose and consideration therein expressed.

Appendix W - CONTINUED

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GIVEN under my hand and seal of office this the 28th day of January A. D., 1930.

(Seal) P. P. Allen
Notary Public in and for
Jackson County, Missouri

My Commission Expires 11/9/31

Filed for record this 2nd. day of June A. D. 1934 at 8:06 o'clock A. M.

F. W. Lemburg, Clerk, County Court,
Hidalgo County, Texas,
By O. V. Bridges, Deputy.

Recorded this 4th. day of June A. D. 1934 at 8:30 o'clock A. M.

(Seal) F. W. Lemburg, County Clerk,
By _____ Deputy.

Warranty Deed W M Sparrow sells the western half of Lot 12 of Section 248 Texas Mexican Railway survey to land to Lillian V Seis in June 2, 1934

Appendix X

5017

DEED OF TRUST

LILLIAN B. SIES, A WIDOW

TO

C. T. WATSON, AS ACTING STATE DIRECTOR, TRUS.

FOR BENEFIT OF THE UNITED STATES OF AMERICA

UNITED STATES DEPARTMENT OF AGRICULTURE

FARM SECURITY ADMINISTRATION

SPECIAL REAL ESTATE PROGRAM

DEED OF TRUST FOR TEXAS

THIS INDENTURE, made and entered into this 9th day of May, 1941, by and between Lillian B. Sies, a widow who is the same person as Lillian V. Sies, of the County of Hidalgo, State of Texas, hereinafter called Grantor, and C. T. Watson Acting Director of the Farm Security Administration ^{as} for the State of Texas, and his successors in office, Trustee, hereinafter called, Trustee, and the United States of America, acting by and through the Secretary of Agriculture, hereinafter called Beneficiary:

WITNESSETH THAT:

WHEREAS, Grantor has become justly indebted to Beneficiary as evidenced by one promissory note dated the 9th day of May, 1941, for the principal sum of One Thousand and No/100 Dollars (\$1,000.00), with interest at the rate of three per cent (3%) per annum, principal and interest payable and amortized in installments as therein provided, the last installment being payable on the 31st day of December, 1965; and,

WHEREAS, Grantor is desirous of securing the prompt payment of said note, and the several installments of principal and interest at maturity, and any extensions or renewals

Appendix X - CONTINUED

223

thereof, and any agreements supplementary thereto, and any additional indebtedness accruing to Beneficiary on account of any expenditures made as hereinafter provided, and the performance of each and every covenant and agreement of Grantor herein contained;

NOW, THEREFORE, in consideration of the indebtedness herein and for other good and valuable consideration, the receipt of which is hereby acknowledged, Grantor has granted, sold, and conveyed and by these presents does grant, sell, convey, warrant and forever defend all and singularly unto Trustee all that tract or parcel of land situated in the County of Hidalgo, State of Texas, and more particularly described as follows:

The East One-Half (E½) of Lot Twelve (12) of Section Two Hundred Forty-Eight (248) of the Texas-Mexican Railway Company's Survey, Hidalgo County, Texas, as shown on the map or plat of this and other sections which is on file and of record in the office of the County Clerk of Hidalgo County, Texas, reference to which is here made for further description; containing 19.97 acres of land, more or less.

SUBJECT, HOWEVER, TO:

(1) Such easements, rules and regulations in favor of Hidalgo County Water Control & Improvement District Number One, as authorized by law, together with all rents and other revenues thereof, the rights, easements, hereditaments and appurtenments thereunto belonging, and all improvements, water and water rights and personal property now or hereafter attached to or reasonably necessary to the use of the real property herein described, all of which property is sometimes hereinafter designated as "said property";

TO HAVE AND TO HOLD said property unto Trustee, his successors and assigns, forever and in fee simple;

IN TRUST, NEVERTHELESS, FOR THE PURPOSE OF SECURING THE above mentioned indebtedness, any extension or renewal thereof, any agreement supplementary thereto, future advances and expenditures, and the performance by Grantor of every covenant and agreement herein contained; and it is agreed that, if this Deed of Trust should be invalid for any purpose for which it is executed, such invalidity for such purpose shall not impair its validity for any other purpose; and it is further agreed that, in the event that any portion of the indebtedness evidenced by said promissory note shall not be validly secured by this deed of trust, then and in that event, the first payments made upon the said indebtedness shall be applied in payment of that portion of the indebtedness which is not secured, and no payments shall be applied toward the portion of the indebtedness secured by this deed of trust until such unsecured indebtedness shall have been paid in full.

(It is understood and agreed that among the purposes for which this Deed of Trust is executed, one is for the purpose of renewing and extending, but not extinguishing, certain lien or liens for taxes described as follows:

Taxes due State and County Tax Collector for the years 1927 to 1937, inclusive, and 1939 and 1940	
in the amount of	\$256.11
Taxes due Edinburg Consolidated Independent School District for the years 1926 to 1940, inclusive,	
in the amount of	141.12
Taxes due Hidalgo County Water Control & Improvement District Number One for the years 1926 to 1940, inclusive,	
in the amount of	300.50

TOTAL DUE	\$697.73
-----------	----------

Deed of Trust Lillian B. Seis sells Sparrow sells the western half of Lot 12 of Section 248
Texas Mexican Railway survey to land to the Department of Agriculture

Appendix Y

VOL 2612 PAGE 976

DEED

STATE OF TEXAS " IN THE NAME OF THE STATE OF TEXAS
COUNTY OF TRAVIS "

TO ALL TO WHOM THESE PRESENTS SHALL COME, KNOW YE:

WHEREAS, the VETERANS LAND BOARD OF THE STATE OF TEXAS has, in accordance with the provisions of the Texas Veterans Land Act, purchased a certain tract of land hereinafter described and has resold said land under Contract of Sale and Purchase to the GRANTEE(s) hereinafter named; and

WHEREAS, said GRANTEE(s) has/have complied with the requirements of said BOARD and with the provisions of said Act, and has paid the entire indebtedness due under said Contract of Sale and Purchase; and

WHEREAS, upon payment of the entire indebtedness due under said Contract of Sale and Purchase, said BOARD shall execute a deed to the original veteran purchaser or to the last assignee whose assignment has been approved by said BOARD; and

WHEREAS, the Chairman of said BOARD, or in his absence or illness the Acting Chairman of said BOARD, is fully empowered and authorized to execute and deliver such deed; NOW, THEREFORE,

FOR AND IN CONSIDERATION of the sum of

SIX THOUSAND FIVE HUNDRED AND NO/100
(\$6,500.00)

DOLLARS, cash in hand paid to said BOARD by said GRANTEE(s), the receipt of which is hereby acknowledged and confessed, said BOARD has GRANTED and CONVEYED, and by these presents does hereby GRANT and CONVEY, unto

LAURO P. MUÑOZ
212 W. Fay, Edinburg, Texas 78539-4329

GRANTEE(s), all that certain lot, tract, or parcel of land more particularly described as that 20.03 acre tract situated in Lot 12, Section 248, Texas-Mexican Railway Company's Survey, HIDALGO County, Texas, described by metes and bounds in the Warranty Deed to the Veterans Land Board dated March 25, 1954, recorded in Volume 797, page 20-21, Deed Records of said County, Texas; and also further described in that Contract of Sale to said GRANTEE(s) dated March 25, 1954, recorded in Volume 797, Page 21-23, Deed Records of said County, Texas and assigned on October 31, 1963 to GRANTEE(s) herein.

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This conveyance is made SUBJECT to any reservations, conditions or agreements set out in the instruments cited above.

HEREBY relinquishing unto said GRANTEE(s), his/her heirs and assigns, forever, all of said BOARD's right, title, and interest in and to said land;

BUT IT IS AGREED AND UNDERSTOOD that in the event that a patented survey of which the above-described tract of land is a part contains excess acreage, or that unsurveyed school land is contained within the boundaries of the above-described tract of land, said BOARD by the execution of this deed does not purport to grant or convey any right, title, or interest in and to such excess acreage or unsurveyed school land.

WITNESS MY HAND AND SEAL OF THE VETERANS LAND BOARD OF THE STATE OF TEXAS, this the 14th day of June, 1987.

[Signature]
Gerry Mauro, Chairman
VETERANS LAND BOARD
OF THE STATE OF TEXAS

Approved as to Contents: *[Signature]*

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did not wish to revert it.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, This _____ day of _____, A. D. 19____.

(L.S.)

CLERK'S CERTIFICATE

I, D. C. HOGAN, _____, County _____, Clerk of the County Court of said County, do hereby certify that the foregoing instrument of writing dated on the _____ day of _____, A. D. 19____, with its Certificate of Authentication, was filed for record in my office on the _____ day of _____, A. D. 19____, at _____ o'clock _____ A. M., and duly recorded this _____ day of _____, A. D. 19____, at _____ o'clock _____ A. M., in the _____ Deed Records of said County, in Volume _____ on pages _____-_____.
Edinburg Texas

WITNESS MY HAND AND SEAL OF THE COUNTY COURT of said County, at office in _____, the day and year last above written.

D. C. HOGAN
County Clerk Hidalgo County, Texas.
By *[Signature]* Deputy

(L.S.)

9418

WARRANTY DEED

FROM
Melvin E. Brady, et ux

TO
Lauro Munoz

FILED FOR RECORD

This day of _____, A. D. 19____, at _____ o'clock _____ M.

County Clerk Co. Texas
By _____ Deputy

Filed for record in _____
at _____ o'clock _____ M. A. D. 19____
County Records
JUN 14 1987
_____ County Clerk.

Recording Fee \$ 100.00
This instrument should be filed immediately with the County Clerk for record.
MARTIN Runaway Co., Dallas
at _____
219 W. 13th Ave.
Edinburg

The Veterans Land Board sells the western half of Lot 12 of Section 248 Texas Mexican Railway survey to land to Lauro P Muñoz.

Appendix Y

188-WARRANTY DEED JC:lmj 80-708 TEXAS STANDARD FORM
VOL 1680 PAGE 17

The State of Texas, } ²⁰⁵⁷⁶ Know All Men by These Presents:
County of HIDALGO

That WE, LAURO P. MUNOZ and wife, GERTRUDES MUNOZ

of the County of Hidalgo State of Texas for and in consideration
of the sum of -----One and No/100-----
-----(\$1.00)-----
and all the love and affection for which the Grantors hold for DOLLARS
the Grantee herein;
to us in hand paid by IMELDA MUNOZ, a feme sole, the receipt of which
is hereby acknowledged and confessed;
XXXXXXX

have Granted, Sold and Conveyed, and by these presents do Grant, Sell and Convey unto the said
IMELDA MUNOZ, a feme sole

of the County of Hidalgo State of Texas all that certain
tract or parcel of land situated in the County of Hidalgo, State of
Texas, and more fully described as follows, to-wit:

Lot Three (3), in Block No. Three Hundred Forty Three
(343), of the City of Edinburg, formerly Chapin, as
shown on the map or plat which is on file and of record
in the office of the County Clerk of Hidalgo County,
Texas.

TO HAVE AND TO HOLD the above described premises, together with all and singular the
rights and appurtenances thereto in anywise belonging unto the said
IMELDA MUNOZ, a feme sole, her
heirs and assigns forever and we do hereby bind ourselves, our
heirs, executors and administrators, to Warrant and Forever Defend, all and singular the said premises
unto the said IMELDA MUNOZ, a feme sole, her
heirs and assigns, against every person whomsoever lawfully claiming, or to claim the same, or any
part thereof.

WITNESS our hands at Edinburg, Hidalgo County, Texas
this 8th day of July 19 80
XXXXXXXXXXXXXXXXXXXX

LAURO P. MUNOZ

GERTRUDES MUNOZ

Deed Record 1680 Page 17

Appendix Y - CONTINUED

VOL 1680 PAGE 18

THE STATE OF TEXAS,
COUNTY OF Hidalgo

BEFORE ME, the undersigned, a Notary Public in and for said County and State, on this day personally appeared
LAURO P. MUNOZ and wife, GERTRUDES MUNOZ
known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE,
this the 8th day of July A. D. 19 80

Lisa M. Jones
Notary Public in and for Hidalgo County, Texas

LISA M. JONES Notary Public
IN AND FOR HIDALGO COUNTY, TEXAS
MY COMMISSION EXPIRES AUGUST 10, 1980

THE STATE OF TEXAS,
COUNTY OF

BEFORE ME, the undersigned, a Notary Public in and for said County and State, on this day personally appeared
known to me to be the person whose name subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE,
this the day of A. D. 19

(L. S.)

Notary Public in and for County, Texas

THE STATE OF TEXAS,
COUNTY OF

BEFORE ME, the undersigned, a Notary Public in and for said County and State, on this day personally appeared
known to me to be the person whose name subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE,
this the day of A. D. 19

(L. S.)

Notary Public in and for County, Texas

THE STATE OF TEXAS,
COUNTY OF

I HEREBY CERTIFY that the foregoing instrument of writing with its certificate of authentication, was filed for record in my office on the day of A. D. 19 at o'clock M., and was duly recorded by me on the day of A. D. 19 in Vol. , page , of the Records of said County.

WITNESS MY HAND and the Seal of the County Court of said County, at my office in the day and year last above written.

(L. S.)

County Clerk County, Texas

By Deputy.

25376
IN
Warranty Deed
FROM
LAURO P. MUNOZ and wife,
GERTRUDES MUNOZ
TO
IMELDA MUNOZ

FILED FOR RECORD
This day of A. D. 19 at o'clock M.

FILED FOR RECORD
RECORDED
AUG 10 1980
SANTOS GALDANA
COUNTY CLERK
HIDALGO COUNTY, TEXAS

By County Clerk Deputy
In Book on Page
Recording Fee \$
This instrument should be filed immediately with the County Clerk for Record.

Lisa M. Jones
The Clerk, President, Texas

Deed Record 1680 Page 18

Lauro Munoz passed down the deed of the western half of Lot 12 of Section 248 Texas Mexican Railway survey to land to Imelda Moreno

Appendix Z

Doc-2837293



VG-120-2017-2837293

Hidalgo County
Arturo Guajardo Jr.
County Clerk
Edinburg, Texas 78540

Document No: 2837293

Billable Pages: 9

Recorded On: August 02, 2017 04:58 PM

Number of Pages: 10

*****Examined and Charged as Follows*****

Total Recording: \$ 68.00

*****THIS PAGE IS PART OF THE DOCUMENT*****

Any provision herein which restricts the Sale, Rental, or use of the described REAL PROPERTY
because of color or race is invalid and unenforceable under federal law.

File Information:

Document No: 2837293
Receipt No: 20170802000400
Recorded On: August 02, 2017 04:58 PM
Deputy Clerk: Imelda Leal
Station: CH-1-CC-K12

Record and Return To:

Juan Manuel Raygoza
1923 Largo St.
original return to customer
Weslaco TX 78596



STATE OF TEXAS
COUNTY OF HIDALGO

I hereby certify that this instrument was FILED in the File Number sequence on the date/time
printed hereon, and was duly RECORDED in the Official Records of Hidalgo County, Texas.

Arturo Guajardo Jr.
County Clerk
Hidalgo County, Texas

Appendix Z - CONTINUED

Doc-2837293

Deed of Trust

Notice of confidentiality rights: If you are a natural person, you may remove or strike any or all of the following information from any instrument that transfers an interest in real property before it is filed for record in the public records: your Social Security number or your driver's license number.

Basic Information

Date: August 1, 2017

Grantor: Juan Manuel Raygoza
Shakera Maria Raygoza

Grantor's Mailing Address: 1923 Largo St.
Weslaco, Texas 78596

Trustee: Oscar H. Villarreal

Trustee's Mailing Address: 22819 East Range
San Antonio, Texas 78255

Lender: Irma Imelda Munoz Moreno

Lender's Mailing Address: 111 Sunnycrest
San Antonio, Texas 78228

Obligation

Note

Date: August 1, 2017

Original principal amount: Three Hundred Thousand and No/100 Dollars
(\$300,00.00)

Borrower: Juan Manuel Raygoza
Shakera Maria Raygoza

Lender: Irma Imelda Munoz Moreno

Maturity date: July 31, 2025

Property (including any improvements): All that certain lot, tract or parcel of land more particularly described as that 20.03 acre tract situated in Lot 12, Section 248, Texas-Mexican Railway Company's Survey, Hidalgo County, Texas, described in deed dated June 14, 1988, recorded in Volume 2612, page 976, Deed Records of Hidalgo County,

Appendix Z - CONTINUED

Doc-2837293

Texas, further described by metes and bounds in the Warranty Deed to the Veterans Land Board, dated March 25, 1954, recorded in Volume 797, pages 20-21, Deed Records of Hidalgo County, Texas ; and also further described in that Contract of Sale dated March 25, 1954, recorded in Volume 797, Pages 21-23, Deed Records of Hidalgo County, Texas and assigned on October 31, 1963 to Lauro P. Munoz.

Other Exceptions to Conveyance and Warranty: Easements, restrictions, conditions, covenants and other instruments of record.

A. Granting Clause

For value received and to secure payment of the Obligation, Grantor conveys the Property to Trustee in trust. Grantor warrants and agrees to defend the title to the Property, subject to the Other Exceptions to Conveyance and Warranty. On payment of the Obligation and all other amounts secured by this deed of trust, this deed of trust will have no further effect, and Lender will release it at Grantor's expense.

B. Grantor's Obligations


B.1. Grantor agrees to maintain all property and liability insurance coverages with respect to the Property, revenues generated by the Property, and operations on the Property that Lender reasonably requires ("Required Insurance Coverages"), issued by insurers and written on policy forms acceptable to Lender, and as to property loss, that are payable to Lender under policies containing standard mortgagee clauses, and deliver evidence of the Required Insurance Coverages in a form acceptable to Lender before execution of this deed of trust and again at least ten days before the expiration of the Required Insurance Coverages.

B.2. Grantor agrees to—

- a. keep the Property in good repair and condition;
- b. pay all taxes and assessments on the Property before delinquency, not authorize a taxing entity to transfer its tax lien on the Property to anyone other than Lender, and not request a deferral of the collection of taxes pursuant to section 33.06 of the Texas Tax Code, and provide Lender with evidence by February 28 of each year that all taxes and assessments have been paid in full;
- c. defend title to the Property subject to the Other Exceptions to Conveyance and Warranty and preserve the lien's priority as it is established in this deed of trust;
- d. obey all laws, ordinances, and restrictive covenants applicable to the Property;

Appendix Z - CONTINUED

Doc-2837293



Juan Manuel Raygoza

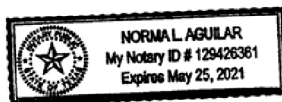


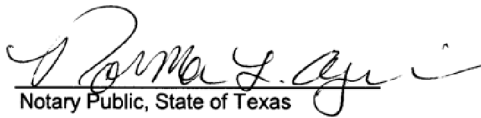
Shakera Maria Raygoza

STATE OF TEXAS

COUNTY OF Hidalgo

This instrument was acknowledged before me on the 2nd day of
August, 2017 by Juan Manuel Raygoza.



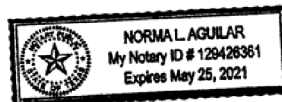


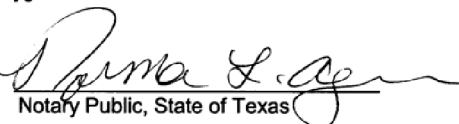
Notary Public, State of Texas

STATE OF TEXAS

COUNTY OF Hidalgo

This instrument was acknowledged before me on the 2nd day of
August, 2017 by Shakera Maria Raygoza.





Notary Public, State of Texas

Warranty Deed Imelda Moreno sells to Shakera and Juan Raygoza of the western half of
Lot 12 of Section 248 Texas Mexican Railway survey to land.

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