



The SARA Report

Vol. 3
November
2018

THE
UNIVERSITY OF TEXAS
RIO GRANDE VALLEY

OFFICE OF THE
EXECUTIVE VICE PRESIDENT
FOR RESEARCH,
GRADUATE STUDIES, AND
NEW PROGRAM
DEVELOPMENT

Dr. Parwinder Grewal
Executive Vice President
for Research,
Graduate Studies, and
New Program
Development

Dr. Alex Racelis
Co-Director for SARA

George Bennack
Co-Director for SARA

Program Information:
The SARA Report shares
the research, education,
outreach, and extension
activities in
sustainable agriculture
and rural advancement
at UTRGV

The University of Texas
Rio Grande Valley™
.....
Center for Sustainable Agriculture
& Rural Advancement

IN THIS ISSUE:

(Click on blue links)

RESEARCH & EDUCATION

- [1. USDA funds initiative to train UTRGV students for soil science careers](#)
- [2. USDA conference grant aims to recruit students into food-related fields](#)
- [3. SARA leads industry in Blanc du Bois grape and wine participatory research](#)
- [4. Participatory research focuses on controlling invasive grass species](#)
- [5. Graduate students develop SARA annual reports](#)
- [6. Graduate students to obtain remote pilot certificates](#)

OUTREACH & EXTENSION

- [7. SARA staff saddened by the passing of agriculture specialist Adrian de los Santos](#)
- [8. Texas Hispanic Farmer and Rancher Conference scheduled for early December](#)
- [9. SARA receives \\$1.2 million in grant funding for outreach projects](#)
- [10. USDA-NIFA award allows continued assistance to beginning farmers and ranchers](#)
- [11. USDA funding extends SARA's outreach capacity](#)
- [12. USDA-RD awards provide comprehensive assistance to farmer groups](#)
- [13. Sub-awards to SARA's partners help define outreach projects](#)
- [14. SARA outreach projects for 2019 provide a broad array of integrated outreach](#)
- [15. Co-op outreach presentations provided in Central Texas](#)
- [16. Central Texas Farmers' Co-op launches third season](#)
- [17. SARA provides training at the 2018 Farm & Food Leadership Conference](#)
- [18. SARA develops video for CESL, a UTRGV Quality Enhancement Plan](#)
- [19. USDA loan for \\$1 million finances value-added processing in the citrus industry](#)
- [20. SARA provides training on *Organic Home Gardening*](#)
- [21. Training scheduled on *Drip Irrigation for Successful Home Gardening*](#)
- [22. Pigeon Pea Field Day provides information on nitrogen-fixing legume](#)
- [23. SARA participates in STED Grant Program](#)
- [24. TRCC staff investigate cooperative opportunities for mobile meat processing](#)

[SARA Staff in the News](#)

To share feedback/questions or to join our mailing list, please e-mail Dahlia Vela at dahlia.vela@utrgv.edu.

Research & Education

1. USDA funds initiative to train UTRGV students for soil science careers

With funding from USDA-Hispanic Serving Institutions Education Program and the support of SARA, UTRGV will become a hub for soil science under the project, “*Training, Research, and Education in Soil Science (TRESS)*”. This initiative will develop soil science-related courses, undergraduate research activities, and off-campus internship opportunities, led by SARA-affiliated faculty Dr. Engil Pereira, Dr. Chu-lin Cheng, and Dr. James Kang. “Soils are the foundation for agriculture, civil-engineering activities, and rain-water infiltration. Careers in this field exist within USDA and other government and private organizations; however, formal training has become extinct. With this grant we will revive this discipline and train the generation that will maintain and innovate conservation technologies for this valuable natural resource,” says the project director, Dr. Engil Pereira. For more information on this project, contact Dr. Engil Pereira at engil.pereira@utrgv.edu

2. USDA conference grant aims to recruit students into food-related fields

A team led by Leyla Feize, PhD, LCSW, was successful in securing USDA funding for a conference grant that aims to recruit students into social work, nutrition, and food-related fields. Dr. Feize is an Assistant Professor in the School of Social Work at UTRGV. She was awarded her master’s and doctoral degrees in social work from the University of Utah, and did her professional work in psychology in her native country of Iran. UTRGV’s Center for Sustainable Agriculture and Rural Advancement (SARA) will participate in the conference, scheduled for September 2019, by providing training in organic gardening, drip irrigation, and by promoting UTRGV’s BS and MS degrees related to sustainable agriculture. For more information on this planned conference, contact Dr. Leyla Feize at leyla.feize@utrgv.edu.

3. SARA leads industry in Blanc du Bois grape and wine participatory research

UTRGV’s Center for Sustainable Agriculture and Rural Advancement (SARA) is active in pioneering participatory research in South Texas involving the grape varietal Blanc du Bois, which is an American hybrid grape that was developed at the University of Florida by crossing *Vitis vinifera* grape varieties with native Florida varieties. SARA research established, through side-by-side trials, that Blanc du Bois needs grafted root stock to perform well in the higher-pH soils of South Texas, and that the Mustang Grape (*Vitis mustangensis*) rootstock provides greatly increased tolerance to Phytophthora root rot. SARA’s current research on Blanc du Bois includes further side-by-side rootstock trials and also side-by-side enology trials to determine the best approach to making wine from Blanc du Bois grown in South Texas. Currently, SARA is partnering with Rio Farms, Inc. on side-by-side trials involving nine approaches to making Blanc du Bois wine, incorporating selective changes in five variables: 1) Brix levels (sugar content); 2) fermentation on and off skins; 3) variety of yeast used; 4) grape quality, and 5) fermentation temperature. Taste trials should begin in December. For more information on SARA’s research in viticulture and enology, contact George Bennack at george.bennack@utrgv.edu.

4. Participatory research focuses on controlling invasive grass species

UTRGV’s Center for Sustainable Agriculture and Rural Advancement (SARA) is promoting research that focuses on controlling an invasive species of grass commonly known as King Ranch Bluestem (*Bothriochloa ischaemum var. songarica*). Ranchers attending SARA-supported training events have complained over the years that this invasive grass is low in protein, non-desirable to cattle, and devalues hay bales. King Ranch (KR) Bluestem is an invasive bunch grass that originally came from China and was further developed by USDA and released for distribution in 1949, according to TAMU AgriLife Extension. Minimal management options available to control KR Bluestem include timely mowing, controlled-burning, and

herbicide applications, which are summarized in the following web link, and are largely ineffective in the control of KR Bluestem: <http://forages.tamu.edu/PDF/ERM036-Introduced-Bluestem-Grasses.pdf>

SARA plans to investigate a new approach for controlling KR Bluestem that involves the broadcast seeding of burr medic (an annual winter-season legume) and common Bermuda grass (a warm-season perennial sod-forming grass). The new, potential approach to managing KR Bluestem involves introducing a competing annual winter-time legume (burr medic) that suppresses the bluestem during the winter, and then introducing a competing high-value perennial grass (Bermuda) in the spring that uses the nitrogen produced by the winter-season legume to more effectively compete with the invasive KR Bluestem. For more information on this potential approach to better controlling KR bluestem, contact George Bennack at george.bennack@utrgv.edu

5. Graduate students develop SARA annual reports

Three UTRGV graduate students pursuing MS degrees in Agricultural, Environmental, and Sustainability Sciences are developing annual reports for UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA). Allison Kaika, Joy Youwakim, and Matthew Kutugata are currently developing the 2017 annual report for SARA. This 2017 annual report is the prototype report that will serve as a template or guide for the 2018 annual report that will be generated by students in January and February 2019. Members of the three-student team complement each other well, with Joy focusing on financial and administrative analysis and impact, Allison focusing on social impact, and Matt providing general support for various elements of the annual report. Access to future annual reports for SARA will be provided through The SARA Report and through the SARA website at <https://www.utrgv.edu/sara/>

6. Graduate students to obtain remote pilot certificates

UTRGV graduate students Matthew Kutugata, Habraham Lopez, and Stephanie Kasper are taking pilot knowledge tests in order to obtain their Federal Aviation Administration (FAA) Part 107 Remote Pilot Certificate. The Certificate is required for individuals that fly small drones, or small unmanned aircraft systems (UAS), for commercial purposes. A small UAS weighs less than 55 pounds. The graduate students will be flying the small drones as part of a USDA grant-funded project that focuses on the use of UAS in agriculture. The UAS project is operated in partnership by UTRGV and Texas A&M University-Corpus Christi. For more information, contact Dr. Alex Racelis at alexis.racelis@utrgv.edu

Outreach & Extension

7. SARA staff saddened by the passing of agriculture specialist Adrian de los Santos

Adrian de los Santos, long-time contributor to the agricultural programs that helped shape the Center for Sustainable Agriculture and Rural Advancement (SARA), died on Tuesday, October 30. Adrian retired from the USDA Farm Service Agency and began working part time in September, 2006 on various agricultural projects for the University of Texas-Pan American and the Texas/Mexico Border Coalition CBO (TMBC). In recent years, Adrian anchored TMBC's agricultural outreach program where he assisted small-scale agriculture producers with farm-loan processing, specialty-crop development, value-added projects, and cooperative-development efforts. As a small-scale farmer himself, Adrian had both a passion for agriculture and hand-on experience, and he enthusiastically shared his knowledge with others. Adrian's dedication, expertise, and cheerful nature will be missed by staff at TMBC and at SARA.

8. Texas Hispanic Farmer and Rancher Conference scheduled for early December

The Texas Hispanic Farmer and Rancher Conference is scheduled for December 6 and 7 at the Casa de Palmas Renaissance Hotel in McAllen, Texas. The two-day conference brings together the Hispanic

farming community, the agriculture industry, advocates for sustainability, and agribusinesses for workshops, networking, and learning. Primary sponsors for the conference include USDA Natural Resources Conservation Service (NRCS), the National Center for Appropriate Technology (NCAT), and Southern Sustainable Agriculture, Research, and Education (SARE), with UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) playing a strong supporting role in the conference. Texas State Senator Juan "Chuy" Hinojosa is scheduled as the keynote speaker, and UTRGV officials will also update the Hispanic farming and ranching community on the University's agricultural programs. More information, as it develops, is available at <https://texashispanic.ncat.org/>.

9. SARA receives \$1.2 million in grant funding for outreach projects

UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) has received \$1.2 million in funding through four USDA grants. These four grants include: 1) a three-year \$600,000 grant through USDA's Beginning Farmer and Rancher Development Program (BFRDP); 2) a one-year \$200,000 grant through USDA's Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers (OASDVFR) Program; 3) a one-year \$200,000 grant through USDA's Rural Cooperative Development Grant (RCDG) Program, and; 4) a one-year \$175,000 grant through USDA's Socially Disadvantaged Grower Grant (SDGG) Program. For more information on SARA's grant-funded outreach programs, contact George Bennack at george.bennack@utrgv.edu

10. USDA-NIFA award allows continued assistance to beginning farmers and ranchers

UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) has secured \$750,000 to continue its beginning farmer and rancher development program through August 2021. The three-year project will receive primary funding through a \$600,000 competitive grant administered through USDA's National Institute for Food and Agriculture (NIFA), which is supplemented through a UTRGV matching contribution of \$150,000. The new beginning farmer project—*Frontera Beginning Farmer and Rancher Development Project*—will assist beginning farmers and ranchers and coordinate its outreach activities with UTRGV's research and education in sustainable agriculture. The project includes three strategic sub-awards to non-profit organizations to better serve beginning farmers in the border-region area of Texas. For more information about this new beginning-farmer project, contact project director Juan Raygoza at juan.raygoza@utrgv.edu

11. USDA funding extends SARA's outreach capacity

UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) has been awarded \$200,000 by USDA to provide training and technical assistance to Hispanic and Black/African American farmers and ranchers in Texas. This project includes two strategic sub-awards to community-based organizations and will focus on providing training and outreach for USDA farm and conservation programs. This project will maintain strong working relationships with USDA officials and regional community-based organizations, while helping minority farmers and ranchers benefit from the full array of USDA programs. For more information about this new project, contact project director Carlos Lago at carlos.lago@utrgv.edu

12. USDA-RD awards provide comprehensive assistance to farmer groups

UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) has secured \$445,000 to continue robust operations of UTRGV's Texas Rural Cooperative Center (TRCC) during FY2019. TRCC's FY 2019 operations will receive primary funding through two USDA Rural Development grants: the *Rural Cooperative Development Grant (RCDG) Program* for \$200,000 coupled with a UTRGV matching contribution of \$70,000; and the *Socially Disadvantaged Growers Grant* for \$175,000. TRCC will assist new and existing rural cooperatives, and other mutually-owned businesses, and will coordinate its outreach activities with UTRGV's research and education in sustainable agriculture. For more information on

UTRGV's Texas Rural Cooperative Center and related projects, contact TRCC director Colin Cain at colin.cain@utrgv.edu

13. Sub-awards to SARA's partners help define outreach projects

Sub-awards play an important role in sponsored projects operated by UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA). Of the \$1.2 million in grant funding awarded to SARA during September, \$240,000 is dedicated to SARA partners through five sub-awards. Two sub-awards totaling \$105,000 are being made to the Texas/Mexico Border Coalition CBO (TMBC), a community-based organization based in San Isidro, Texas that is comprised of, and governed by, Hispanic farmers and ranchers. These two sub-awards fund financial technical assistance to border-region Hispanic farmers and ranchers, and also help organize and host training events for Hispanic farmers and ranchers.

Another \$30,000 sub-award is being provided to the Texas Small Farmers and Ranchers CBO (TSFR), based in Bryan/College Station, to organize and host training events for Black/African American farmers and ranchers in East Texas. A \$75,000 sub-award is also being provided to the National Center for Appropriate Technology (NCAT), which will provide web-based training and technical assistance to Veteran and Hispanic farmers and ranchers. The final \$30,000 sub-award is being provided to La Semilla Food Center, which operates in El Paso, Texas and Las Cruces, New Mexico, and will fund training and technical assistance to Hispanic, mostly immigrant farmers. For more information on SARA's array of partners, contact George Bennack at george.bennack@utrgv.edu

14. SARA outreach projects for 2019 provide a broad array of integrated outreach

Outreach projects operated by UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) are primarily funded through USDA and provide a broad array of training and assistance that relates to sustainable agriculture, while effectively integrating this outreach with UTRGV's research and education in sustainable agriculture. SARA outreach projects help beginning farmers and ranchers start and continue farming, and SARA projects also help develop and sustain farmer-owned cooperatives while providing value-added assistance to farm and ranch operations. These activities are integrated with UTRGV research and education, and these activities provide students with experiential-learning and employment opportunities.

15. Co-op outreach presentations provided in Central Texas

Cooperatives can be a great way to build a resilient business, make housing more affordable, and access economies of scale for small farmers and other entrepreneurs. In partnership with the Austin Cooperative Business Foundation, Texas Rural Cooperative Center's (TRCC) co-op development specialist Annelies Lottmann is presenting a series of workshops in Central Texas on how to plan for and start a successful cooperative. Participants in these workshops will learn the step-by-step process to go from idea to launch with a group of co-owners. Key points of discussion will center on group decision-making, simple straightforward business planning, and leveraging your cooperative identity to differentiate yourself in the marketplace. The first workshop in the series took place on Saturday, September 29th at the Austin Central Library. Additional workshops will be posted on TRCC's Facebook page. For more information, contact annelies.lottmann@utrgv.edu.

16. Central Texas Farmers' Co-op launches third season

Congratulations to members of the Central Texas Farmers' Co-op (CTFC) who are launching their third season as a multi-farm CSA. Through a Community Supported Agriculture (CSA) model, these small-scale farmers are partnering with the local community for mutual support and to share the risks and benefits

of food production. Their weekly farm veggie basket is a collaboration among 10 farmers in the Lockhart and San Marcos areas. The co-op also offers a meat share, with a monthly delivery of chicken, pork, and beef from local farmers and ranchers. CTFC started in 2017 with support and assistance from the Texas Rural Cooperative Center (TRCC), a SARA program. Since 2017, CTFC farmer-members have worked together to create a strong foundation, including a business and marketing plan and a governance structure that allows for the flexibility that busy farmers need. In July, 2018, CTFC held its second successful election for its Board of Directors, and the co-op is exploring new business lines that might compliment the CSA program. For more information on TRCC's work with CTFC, please contact Annelies Lottmann at annelies.lottmann@utrgv.edu.

17. SARA provides training at the 2018 Farm & Food Leadership Conference

UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) provided training on Sunday, October 14, at the 2018 Farm & Food Conference held in McKinney, Texas. Provided through SARA's Texas Rural Cooperative Center (TRCC), co-op development specialist Annelies Lottmann led training sessions on how to form a successful cooperative. The full-day interactive workshop addressed how small-scale farmers and ranchers can develop the same economics of scale and achieve the same market penetration as their much larger competitors. Attendees of the event learned how cooperation can build strong, resilient farmer and rancher networks as well as a committed, reliable customer base. For more information on cooperative-development training, contact Colin Cain at colin.cain@utrgv.edu

18. SARA develops video for CESL, a UTRGV Quality Enhancement Plan

UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) developed a six-minute video for *Community Engaged Scholarship and Learning Experiences (CESL)*, which is a UTRGV Quality Enhancement Plan (QEP) designed to tie student education to community engagement. CESL involves faculty training and student coursework related to community engagement, with the objective of increasing student-communication and critical-thinking skills. This video is available for viewing at https://youtu.be/76V-Ulbl_Aw

19. USDA loan for \$1 million finances value-added processing in the citrus industry

Rural programs at UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) assisted in securing \$1 million in loan financing during September for value-added citrus processing in the Lower Rio Grande Valley through USDA's Rural Economic Development Loan and Grant (REDLG) program. The REDLG program provides funding for rural projects through local utility organizations. USDA provides zero-interest loans to local utilities which, in turn, pass on the financing to local businesses (ultimate recipients) for projects that create and retain employment in rural areas. The ultimate recipients repay the lending utility directly. The utility is responsible for repayment to USDA. SARA staff specialize in coordinating collaborative efforts to spur research in sustainable agriculture and rural economic development through multi-institutional projects. This \$1 million loan resulted from collaborative efforts among UTRGV; USDA Rural Development; Valley Telephone Cooperative, Inc.; PlainsCapital Bank; and a private consulting firm. For more information on SARA's rural-development projects, contact Colin Cain at colin.cain@utrgv.edu

20. SARA provides training on *Organic Home Gardening*

UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) provided training on *Organic Home Gardening* at the Edinburg campus on Tuesday, October 9 and at the Brownsville campus on Thursday, October 11. During this training, SARA staff members Juan Raygoza and Cruz Salinas provided information on various aspects of organic home gardening. This training will be followed by training on *Drip Irrigation for Successful Home Gardening* in Brownsville on November 6 from 10:30 a.m.—12:00 p.m.,

and in Edinburg on November 8 from 10:30 a.m.—12:00 p.m. These trainings are a collaborative effort that includes the UTRGV Office of Human Resources, the UTRGV Community Garden, and SARA.

21. Training scheduled on *Drip Irrigation for Successful Home Gardening*

UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) is scheduled to provide training on *Drip Irrigation for Successful Home Gardening* in Brownsville on November 6 from 10:30 a.m.—12:00 p.m. and in Edinburg on November 8 from 10:30 a.m.—12:00 p.m. During this training, SARA agriculture specialist Cruz Salinas will teach participants how to develop and install a drip-irrigation system for a home garden. This training is a collaborative effort that includes the UTRGV Office of Human Resources, the UTRGV Community Garden, and SARA. For more information, please refer to:

https://messenger.utrgv.edu/#/bulletin/11467?utm_source=messenger&utm_medium=email&utm_campaign=Faculty%2FStaff

22. Pigeon Pea Field Day provides information on nitrogen-fixing legume

Information on pigeon peas, a nitrogen-fixing legume, was provided at a field day at PPC Farms on September 6. The field day was a collaborative effort that involved PPC Farms, the National Center for Appropriate Technology (NCAT), and the Center for Sustainable Agriculture and Rural Advancement (SARA). The pigeon pea (*Cajanus cajan*) is a perennial legume that was domesticated at least 3,500 years ago in the Indian subcontinent. The legume is well suited for cultivation in tropical and subtropical climates. It is also drought tolerant and can be grown on dryland during the hot summer months in South Texas. For more information on the use of pigeon peas as a nitrogen-fixing cover crop, contact Dr. Alex Racelis at alexis.racelis@utrgv.edu

23. SARA participates in STED Grant Program

UTRGV's Center for Sustainable Agriculture and Rural Advancement (SARA) participated in the Hidalgo County Small Town Economic Development (STED) Grant Program, through which businesses in cities with a population less than 20,000 applied for funding to help start or expand a business venture. The project seeks to encourage entrepreneurially-oriented residents to develop new ideas and promote economic growth in under-served rural communities. Colin Cain, director of the Texas Rural Cooperative Center, a SARA program, worked with Hidalgo County officials and four specialists in rural economic development to evaluate business plans and in-person pitches from 14 qualified applicants. Participants received technical assistance from SBDC's Rural Business Program, including help with business-plan preparation and financial projections. For more information on SARA's participation in this program, please contact Colin Cain at colin.cain@utrgv.edu.

24. TRCC staff investigate cooperative opportunities for mobile meat processing

SARA's Texas Rural Cooperative Center (TRCC) is working with a group of small-scale ranchers in the Lower Rio Grande Valley to investigate the feasibility of a cooperatively-owned mobile meat-processing unit. The concept was brought to TRCC's Aisha Cruz-Reyes by ranchers in Cameron and Hidalgo Counties who are looking to increase the financial returns on their small-scale ranching operations. A mobile slaughter unit (MSU) would allow smaller-scale remote producers to harvest their livestock on-site, and eliminate intermediaries that take away from ranchers' bottom-line profit. The MSU would allow for on-site sanitary slaughter, skinning, butchering, and packaging of large cuts and would eliminate the cost and timely process of loading, transporting, and unloading the livestock. Fresh cuts of meat can then be sold under the ranch brand and could be sold directly to consumers who desire fresh and local beef and are willing to pay a premium. For more information on this feasibility study, please contact Aisha Cruz-Reyes at aisha.cruzreyes@utrgv.edu.

SARA Staff in the News

Annelies Lottmann is participating in the *Housing Co-op Affinity Group* with CooperationWorks!, an association of Cooperative Development Centers in the U.S., to develop her expertise in serving Housing Co-ops on behalf of TRCC. Cruz Salinas attended the *Rural Development Best Management Practice Conference* in Atlanta, Georgia, for rural-development training sponsored by various 1890 Land-Grant Universities. Colin Cain received notification of \$375,000 in funding for two USDA Rural Development grant proposals that he led the development of (see article #12). Carlos Lago received notification of \$200,000 in funding for a USDA proposal that he led the development of (see article #11). Aisha Reyes joined a panel of presenters at *H.O.P.E. for Small Farm Sustainability*, a non-profit farm operation, in Harlingen on September 10 and highlighted the business and grant-writing assistance available through SARA. Juan Raygoza and George Bennack attended the annual project directors' meeting for the *Beginning Farmer and Ranchers Development Program (BFRDP)* held in Albuquerque, New Mexico on September 25 – 27, where both received updates on the BFRDP program and Juan presented a poster on SARA's BFRDP project. George Bennack received notification of \$600,000 in USDA funding for a *Beginning Farmer and Rancher Development Program (BFRDP)* grant proposal that he led the development of (see article #10). He also attended the *Farm and Food Leadership Conference* held in McKinney, Texas on October 14 – 16 (see article #17).