UC CE | UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

Riverside University HEALTH SYSTEM Public Health

UC Cooperative Extension
Riverside County

Semi-Annual Report
UC Cooperative Extension Riverside
July-December, 2024

2980 Washington St. | Riverside | CA | 92504 | 951.955.0170

UC CE | UNIVERSITY OF CALIFORNIA Agriculture and Natural Resources | UC Cooperative Extension - Riverside County

CONTENTS

Programs **Page No.**

4-H Youth Development……..……..3-4
Agricultural Economics/Farm Management…....5
Climate Action and Land Equity (CALE)……6-7
Community Nutrition and Health…….8-9
- CalFresh Healthy Living……....10-11
- ENEP……..…..12-13
- Master Food Preserver……..….14-15

Crop Production and Entomology…..……16-17
Integrated Pest Management……..…..18-19
Master Gardener Program…….20-21
Plant Pathology……..……..22-23
Small Farms and Specialty Crops Program..24-26
Vegetable Crops……27-29
Woody Biomass and Bioenergy ……..….30-31
Staff……....32
Nondiscrimination Statement for UC ANR…...33
Publications Regarding Program Practices

Visit our offices in Riverside, Palm Desert and Blythe, and let us know how UC Cooperative Extension in Riverside County can be of help to you.

For information visit us on the web at:

http//ceriverside.ucanr.edu

(951) 955-0170

Cooperative Extension
Riverside County

Cooperative Extension is an off-campus educational arm of the University of California, Division of Agriculture and Natural Resources. It came into existence when the Federal Smith-Lever Act of 1914 established the nationwide Cooperative Extension at land-grant universities. The mission of UC Cooperative Extension (UCCE) is to connect the power of UC research in agriculture, natural resources, nutrition and youth development with California counties to promote healthy people, healthy communities, healthy food systems, and healthy environments.

In Riverside, the University of California entered a Memorandum of Understanding with the County in 1917 to promote the vision of sharing UC research and science-based solutions to solve local issues and improve the lives of Riverside County residents by forming a strong partnership with Riverside County.

This report includes a summary of our programs with highlights, accomplishments and efforts from ***July to December, 2024***. Thank you for reading!

Rita Clemons
Area County Director
Riverside, San Bernardino and Orange Counties
(951) 955-0170
Email: rlclemons@ucanr.edu

4-H Youth Development Program

Riverside County 4-H Youth Development Program serves youth ages 5-19 in Riverside County and promotes hands-on, experiential learning for youth of all backgrounds and locations. Our community clubs, camps, in-school, afterschool, and special interest programs encourage youth to take on leadership roles and teach life skills, community involvement, and personal development while they engage in new experiences. The program is led by faculty, staff, and adult volunteers from the University of California Division of Agriculture and Natural Resources (UC ANR), a statewide network under the University of California. Our research-driven programming provides positive youth development opportunities that enable youth to reach their full potential as competent, confident, leaders of character who contribute to and are connected to their communities.

CONSULATE SUMMER PROGRAM 2024

In efforts to reach underserved youth in our communities, every summer the Riverside & San Bernardino County 4-H Youth Development Program staff plan and facilitate a free cultural summer program open to youth in our counties. The program is possible thanks to our strong partnership with the Consulate of Mexico in San Bernardino. Throughout the course of 2 weeks from July 8-July 19, local youth ages 5-13 engaged in Mexican history and cultural heritage exploration. Over 50 local youth participated in our summer program delivering themed activities focused on Mexico's rich history, traditions, science, wellness, art, and festivities in a bilingual setting.

Youth pose with their completion certificates.

Youth watch a ballet folklorico traditional dance.

UCR ROPES COURSE CHALLENGE 2024

Over 30 youth members from 9 different community clubs participated in this year's UCR Ropes Course Challenge on November 3, 2024! Our brave 4-H'ers engaged in teamwork activities and even dared to take on the high course challenges including a leap of faith, rock climbing, wall, and swinging trapeze. This year's participants received special recognition at the County Awards Night on November 23, 2024 for their bravery. As a result of the event's success, our county will now offer this event as an annual challenge every fall!

Youth engage in warm-up team activities before moving onto the high ropes challenges.

UCR Ropes Course youth participants pose for a photo upon the completion of their last high ropes course.

4-H Youth Development Program

COUNTY AWARDS NIGHT 2024

On Saturday, November 23, 2024, the Riverside County 4-H Ambassadors hosted the annual County Awards Night at the UCCE Riverside office. Our Ambassadors were delighted to present a number of awards to youth members, adult volunteers, and community clubs from all over Riverside County. We had over 50 members and adult volunteers in attendance for our awards dinner and ceremony; highlighting a significant jump in county-event participation. For the first time in program history, long-time volunteers were given special recognition depending on their years of service. Some of our most loyal and dedicated volunteers had been serving our program for over 10, 15, 20, 25, and 30+ years! In efforts to recognize these incredible achievements, our program staff and county ambassadors worked tirelessly to prepare a special dinner service and awards ceremony for all in attendance.

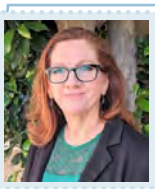
Volunteers with special recognition pose with their awards and pins.

Youth pose with their awards .

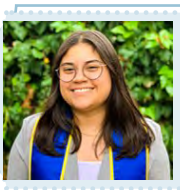
MIRACLE ON COURT ST. HOLIDAY EVENT 2024

On December 21, 2024, the Consulate of Mexico invited Riverside & San Bernardino County 4-H to participate in the Miracle on Court St. holiday event hosted annually by the City of San Bernardino. Our programs were able to host an activity table for local youth. This fun and engaging activity included making snowflakes out of toothpicks and marshmallows. Hundreds of families attended this holiday event during the evening and youth loved the craft.

Youth work on completing their snowflake during the holiday event.



Stephanie L. Barrett
4-H Regional Program Coordinator
slbarret@ucanr.edu



Leslie Rendon Castro
4-H Program Representative
lrendon@ucanr.edu

Agricultural Economics/Farm Management

Agricultural Economics/Farm Management: Production economics, decision-making at the farm level, integrated input management, risk management. Area Program including the following counties: Riverside, San Diego, San Bernardino, Imperial, Santa Barbara, San Luis Obispo, Los Angeles, Orange, and Ventura. The program's mission is to determine enterprises profitability and create understanding of what affects profit; thus, guiding growers to better management strategies and guiding researchers and educators to future program planning and collaborations for Agricultural Sustainability, food safety and security.

Newsletters

Two quarterly newsletters during the summer and the Fall of 2024 were disseminated. A statewide newsletter editors, we provided 11 articles of new research results and information to educate clientele with improved production practices and management of subtropical crops: Newsletters - Agricultural Economics /

Workshops

California Avocado Growers Seminars Series 2024 was a collaborative program between the University of California Cooperative Extension Advisors and the California Avocado Society and California Avocado Commission. Workshops listed: California Avocado Society - Seminars

Etaferahu Takele , M.S., M.A
Area Advisor Farm Management/Agricultural Economics
ettakele@ucanr.edu
https://ucanr.edu/sites/Farm_Management/

Climate Action and Land Equity (CALE)

Climate Smart Land Management Program is a new statewide program funded through the Department of Conservation. The program aims to build regional and state capacity to increase climate resilience on California's natural and working lands toward a resilient, equitable, and carbon-neutral future. In alignment with the state's initiatives and strategies to conserve 30% of the lands and coastal waters by 2030, this three-year grant award will enable UC ANR to build a practical, diverse, and meaningful approach that prioritizes equitable solutions and invests in the science highlighting that climate-smart, nature-based conservation solutions should be actively targeted, demonstrated, and accelerated on-the ground. The Climate Action and Land Equity Project (CALE) will magnify our commitment to protect and restore lands and support critical efforts to build resilience against the impacts of climate change.

Activities

Chandra continued her activities as Land Equity Academic Coordinator and Principal Investigator for the Climate Smart Land Management Program grant, funded by the Department of Conservation (DOC). She continued the partnership alongside Community Alliance with Family Farmers (CAFF), California Association of Resource Conservation Districts (CARCD), and California Farm Bureau Federation (CFBF). In December 2024, she hired a Land Equity Project Manager (Project Policy Analyst 3) to support outreach and administrative activities. The Project Manager will complete the development of a Request for block grant Proposals for expansive engagement to historically underserved and underrepresented communities.

She continued magnifying and elevating the voices of land managers and community-based organizations in the Southern California region toward a unified outreach plan bridging connectivity on climate action and implementation. This plan includes strengthening connections and opportunities between land holders (often those who are well resourced) and land seekers (often those who are under-resourced or under-served). She met with 26 individuals within the Inland Empire region regarding the project, including land stewards, Tribal members, non-profit organizations, land trusts, state agencies, policy makers, and groups serving diverse and/or underrepresented communities. This includes at seven agricultural operations in San Diego, Riverside, San Bernardino, and Orange Counties, two Tribal workshops at the Pala Reservation, with UC ANR leadership in Los Angeles, two local governments, and with state and regional stakeholder serving BIPOC and historically underrepresented communities. She and UCCE Los Angeles County Director Keith Nathaniel co-hosted Western Extension Leadership Development (WELD) tour of a Black-owned operation in San Diego County.

Climate Action and Land Equity (CALE)

She also presented a CALE Poster, "Strengthening California's Current and Next Generation through Climate Action and Land Equity Planning," at the CalCAN Summit in October 2024 and North San Jacinto Valley Conservation Symposium in November 2024. She also continues to participate in Strategic Growth Council (SGC) Agricultural Land Equity Task Force (ALETF) meetings that will make recommendations by the end of 2025. She aims to review and provide feedback on ALETF surveys alongside UC ANR colleagues to strengthen efforts, engage with focus groups, and inform policy recommendations. She began planning the first outreach event for Southern California: Growing CALE Connections in Orange County – to feature two farms and allow for networking at South Coast Research and Extension Center (SCREC) in January 2025.

Chandra continued building a peer review research needs assessment identifying land use, access, tenure, and diversification issues for the Southern California region and analyzing land match, connection, and succession opportunities available to land managers. This analysis of grower needs assessments from San Diego and Inland Empire and also from state match programs will be instrumental to our knowledge of opportunities and shared strategic recommendations.

Dr. Chandra Richards
Land Equity Academic Coordinator II,
Serving Southern California
cmrichards@ucanr.edu
619-786-2620

Community Nutrition and Health

As an Area Youth, Families, and Communities Advisor based at Riverside County UCCE, I academically oversee CalFresh Healthy Living, UC, Expanded Food and Nutrition Education Program, and Master Food Preservation programs. Our programs have a common goal to improve **community nutrition and health**. In particular, we engage with limited-resources families, individuals, and communities to evidence-based nutrition and health knowledge to improve their well-being and living environment. I provide leadership and bring expertise on research to strengthen and expand Community Nutrition and Health Extension education programs.

Research

My current project, ***Household Food Waste Reduction project***, has the overall aim to reduce household food waste among Californians, and it will be implemented in phases. I have completed the first phase of needs assessment to better understand the current level of household food waste reduction awareness, attitudes, motivators, barriers, and practices of UCANR staff and volunteers in our statewide programs. These programs include the EFNEP, CalFresh Healthy Living UC, 4-H, Master Gardeners, and Master Food Preservers. The findings have confirmed that there is a great need to develop appropriate training to prepare community educators to deliver food waste reduction messages, which will support consumer compliance with California's short-lived climate pollutant reduction strategy (SB 1383).

During Jan to July, the project moved to the second phase in developing ***Household Food Waste Educator Toolkit***. We conducted focus group with participants to learn what will motivate them to reduce household food waste and what are the knowledge gaps and barriers for their household to reduce food waste. We identified 4 lesson topics with participants on Planning/Shopping, Cooking, Storage, and Handling Excess Food. Lesson plans are developed or adapted from evidence-based materials and reviewed with our participants.

Food waste reduction class in community

Review shopping strategies with participants

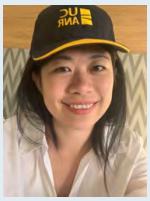
Community Nutrition and Health

How to store your food to keep it longer

Group discussion on best strategies to reduce household food waste.

Here are some preliminary results from our focus groups

- Participants in the planning group liked the format of a shopping list that included a column to list the planned meal, recording ingredients already on hand, and additional ingredients they needed to buy. Some would prefer an app to create the shopping list.
- The planning and shopping groups liked learning about shopping tips and preferred to receive the tips in a handout, email, or text messages.
- In the planning, shopping, and cooking groups, participants liked the eatfresh.org website from CalFresh Healthy Living, including the Farmers' Market Finder feature. Some would prefer a phone app to a website.
- Other favorite resources in the cooking group were a "build your own fried rice" worksheet and tips for stretching produce from Leah's Pantry.
- In the food storage group, a video showing real food was preferred over a cartoon graphic to demonstrate how to organize the refrigerator. Participants suggested that a food storage chart be shared as a refrigerator magnet.
- Participants in the managing excess food group favored materials with more pictures and fewer words to illustrate the composting process.



Yu Meng, MS, PhD
Youth, Families & Communities Advisor
University of California Cooperative Extension
Riverside, Imperial, and San Bernardino Counties
ucmeng@ucanr.edu
Phone: (951) 955-2597

Community Nutrition and Health

CalFresh Healthy Living, UCCE

CalFresh Healthy Living, University of California Cooperative Extension Riverside County helps people lead healthier lives. CFHL, UCCE teaches people eligible for SNAP about good nutrition, how to make their food dollars stretch further, and how to be physically active at any age. Effective, evidenced-based nutrition education and physical activity classes are aligned with policy, systems, and environmental (PSE) change strategies to create long lasting community change.

Education

The CFHL, UCCE program provided direct education to over 5,000 participants in FY24. CFHL, UCCE Riverside worked in 38 locations of various settings including 19 schools, and 9 Early Care and Education (ECE) sites.

Fifty-five policies, systems, and environmental (PSE) strategies were adopted at 22 sites. Garden-based education and support were provided at 14 locations including 9 schools, and 3 community gardens. The Riverside team completed 39 PSE needs assessments, including 16 Smarter Mealtimes projects, and 3 Smarter Lunchrooms Movement projects. Overall, PSE efforts reached over 2,000 youth and adults countywide. The team delivered indirect education, reaching 11,051 Riverside County residents.

September 2024 was **Rethink Your Drink Month**. The Team hosted 7 events county-wide, reaching 2,723 youth and adult participants. The team provided informational tables with games during the students' lunchtime, as well as adult classes, all with healthy beverage tastings and indirect education.

The CFHL, UCCE Riverside County Team are pictured serving samples of infused water to students.

At **Torres Martinez**, CFHL, UCCE Riverside expanded the partnership to include TANF providing 9 family nutrition classes with 22 participants in each class during their summer day camp. The Palm Desert Team hosted tabling events at the Harvest Festival and at the Senior Christmas Party.

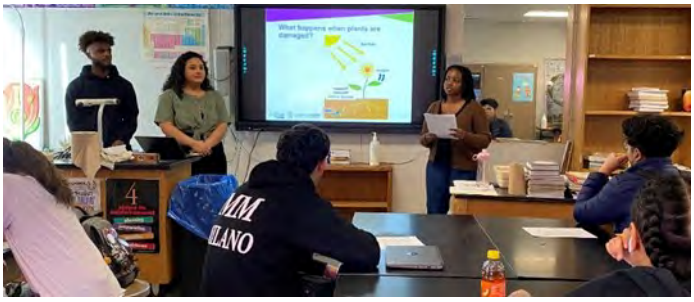
At **Community Settlement Association (CSA)**, CFHL, UCCE provided nutrition and garden-enhanced education implementing 4 unique series-based curricula reaching 120 adults. CFHL, UCCE facilitated year-round garden support coordinating 18 Garden Club meetings in FFY24

> ***"As a teacher, I have truly appreciated the incredible effort CalFresh Healthy Living put into creating engaging and age-appropriate lessons for my Transitional Kindergarten students. The way they broke down complex topics about nutrition into simple, digestible pieces was perfect for young learners. My students not only enjoyed the interactive learning but also developed a genuine connection with Ms. Nunez. Some even mentioned how much they'll miss her! CalFresh Healthy Living has made a meaningful impact on our classroom, and I'm grateful for their dedication and passion in promoting healthy habits."***
>
> ***~Dr. Steele, teacher at Mountain Vista Elementary***

Community Nutrition and Health

CalFresh Healthy Living, UCCE

Ten **La Sierra University** service-learning students during the spring 2024 semester (9 in the fall 2024 semester). Volunteers taught/co-taught secondary youth at Alvord USD schools implementing Teams With Intergenerational Support (TWIGS) garden-enhanced lessons. The La Sierra University Urban Ag students also had the opportunity to earn service-learning hours by volunteering to develop presentations slides with CFHL, UCCE Riverside.



La Sierra University extenders teaching garden lessons during the spring 2024 semester.

At **La Sierra High** School, the Riverside Team conducted a Smarter Lunchrooms Movement (SLM) project in partnership with the Alvord USD Child Nutrition Services Director. SLM influences students toward choosing healthier, more nutritious foods by applying research-based principles that use low or no-cost solutions with a focus on the cafeteria environment and the promotion of healthful eating behaviors. La Sierra's baseline assessment (pre-scorecard) was 25 points, and after all the interventions, the follow-up (post-scorecard) assessment score increased by 5 points, which is within the silver award level!

Jackson Early Childcare Learning Center students planting seedling donated by the UC Master Gardeners Riverside County Program.

At Mountain Vista Elementary, CFHL enrolled 9 teachers, reaching 199 students and provided garden support with the TK/K team at the planting event reaching 114 students.

Cal Fresh Living, UCCE Riverside Program Staff
Claudia Carlos, Supervisor, cfcarlos@ucanr.edu
Alondra Alonso, CES II, aalon@ucanr.edu
Marlen Gaspar, CES II, mgaspar@ucanr.edu
Esmeralda Nunez, CES II, eannunez@ucanr.edu
Vianca Nunez, CES II, vnunez@ucanr.edu
Michelle Diane Zavala , CES II, miczavala@ucanr.edu

Community Nutrition and Health

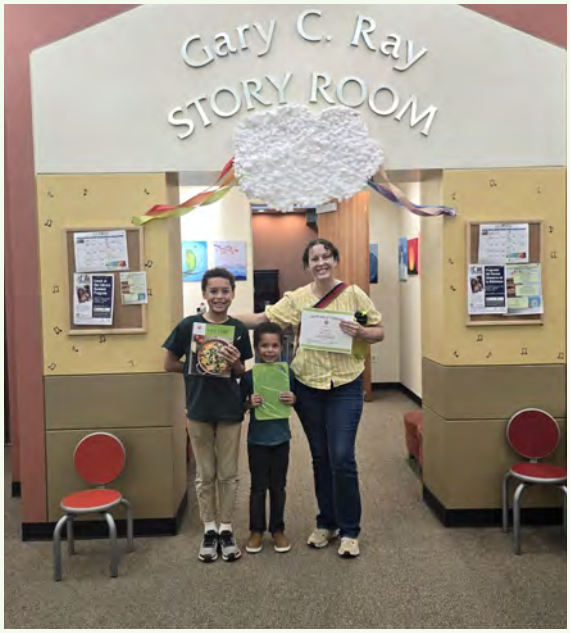
Expended Food and Nutrition Education Program (EFNEP)

The **Expanded Food and Nutrition Education Program (EFNEP)** assists limited-resource families to gain the knowledge, skills, attitudes, and changed behavior necessary to choose nutritionally sound diets and improve their well-being. EFNEP is a federally-funded program through the United States Department of Agriculture National Institute of Food and Agriculture (USDA NIFA) that offers nutrition education to limited -resource families and children in all 50 states and U.S. territories. In California, EFNEP is administered by

Workshops and Nutrition Education

EFNEP made significant strides in the Riverside County area, including reaching new communities and expanding its educational offerings. The EFNEP Program has successfully extended its reach into the desert region of Riverside County, focusing on providing nutrition education to underserved communities.

During the summer months, EFNEP hosted **workshops** at the Cathedral City Library in conjunction with the Summer Meals Program, benefiting families in the area.



EFNEP Graduate and her children from Cathedral City Library

A new partnership began with the Coachella Valley Housing Authority to deliver **nutrition education** to residents, helping improve access to healthy food choices and lifestyle practices.

EFNEP Graduates from Coachella Valley Housing Authority

Community Nutrition and Health

Expended Food and Nutrition Education Program (EFNEP)

Nutrition Education

The Moreno Valley Adult School continues to participate in the ***Eating Smart, Being Active*** (ESBA) series. The program is delivered to both English Language Learners and pharmacy students, promoting healthier UCCE Connects to You continues to provide Riverside Unified School District virtual workshops for providing excellent opportunity to engage parents district-wide who were unable to attend in person, ensuring broader access to valuable nutrition education. These activities reflect EFNEP's ongoing commitment to supporting communities throughout Riverside County by providing accessible and impactful nutrition education programs.

EFNEP Graduates from Moreno Valley Adult School

Christine Davidson
EFNEP Program Supervisor
cdavidson@ucanr.edu

Roxana Price
Community Education Specialist II
roxprice@ucanr.edu

Community Nutrition and Health

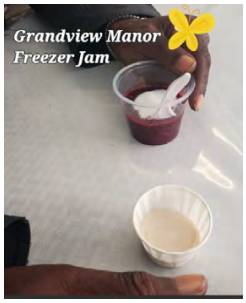
Master Food Preserver Program

The UC Master Food Preserver Program is a public service and outreach program. The Master Food Preserver Program extends UC research-based information about home food safety and preservation to the public with the help of our trained volunteers.

Events, Presentation

Senior Fall Health Event

September 2024: Master Food Preserver volunteers took our freezer jam process on the road to the residents of Grandview Manor care facility. Our goal was to introduce the process of making freezer jam and provide a tasting of triple berry jam. We did have a wide variety of skill level and participation at this care facility. Our Master Food Preservers interacted with residents to learn about other activities or tastings we could do in the future.



Freezer jam process at the Granview Manor CareFacility

EAT Cultural Center

October 2024: We were back at the EAT Center in Norco in October. We had over 50 people attend our introduction to food preservation presentation. During our session we discussed the methods of safe home food preservation and discussed why some of the methods you see on the internet or old family recipes could be unsafe. We had a wide variety of items our Certified Master Food Preserver volunteer Kathy King had processed for her home pantry. We also brought out a variety of canning equipment so individuals could ask questions and look at the differences in equipment. This introduction class was developed to be a prerequisite to attend any of our hands-on labs so students would have a basic understanding of canning processes and equipment so during our hands-on lab day we are able to go into a deeper dive of safe home food preservation.

EAT Preservation Presentation

Community Nutrition and Health

Master Food Preserver Program

Events, Presentation

Fall Festival at Louis Rubidoux Nature Center

Master Food Preserver volunteers were on hand to answer questions on home food preservation for the residents at the festival. We hand on-hand handouts on basic food safety tips on preparing the family meal and safe methods for leftover storage for the adults and for the kids we had some fun coloring pages on food safety and hand washing.

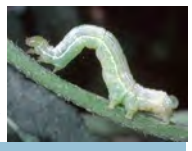
EAT Cultural Center – Hands-on Lab (cranberry sauce and refrigerator pickling)

November 2024: The Master Food Preserver volunteers were in full force to make this hands on canning class an interactive class for the public. During this class we demonstrated how to safely use an atmospheric steam canner as well as creating your own refrigerator pickling creation. Attendees worked in teams of 4 and work with a Master Food Preserver preparing a batch cranberry sauce that was then processed demonstrating the proper canning process from start to finish to ensure a pantry safe product. Everyone in attendance took home a pint of freshly processed cranberry sauce just in time for the holidays. As a wrap up to the class, a table to fresh vegetables was provided so students could create their own specialized mix for a quick pickling lesson.

Make cranberry sauce at canning class

After pickling lesson.

Denneigh Denton
Volunteer Services Coordinator for Master Food Preserver
djdenton@ucanr.edu



Crop Production and Entomology

Programming and efforts for this position are focused on several areas, with research being conducted in local commercial grower's fields the main method utilized to develop relevant data. This data is used not only by local growers, but growers and pest control advisors across much of the western United States. Field trials during the second half of 2024 were focused on alfalfa and cotton.

Data from previous alfalfa insect field work was shared at a national entomology meeting and as an invited speaker for the California Alfalfa Symposium as well as multiple invited presentations across the low desert regions (Arizona and California).

Multiple meetings and educational events to extend information were organized and conducted. A garlic/ dehydrator onion meeting was organized for local producers, with no one able to previously recall such a meeting. The advisor also organized the poster session for the 2024 California Alfalfa and Forage Symposium, as well as served as coach for the California state 4-H team held over multiple weekends. Additional pre-contest training was provided in the area of landscape plant identification for all participants at the national

Research

Alfalfa: A miticide trial and a beet armyworm insecticide efficacy trial were conducted in alfalfa. Data from the beet armyworm indicates high levels of resistance to the most commonly used insecticide for this purpose, and will have profound implications for the 2025 growing season.

Spider mites were very problematic for alfalfa production in 2024, with only one effect product available for usage, which has lost efficacy and is further limited to one application/year. A fall 2024 trial that contained multiple registered and several potential new products for alfalfa provided highly contrasting results, with several potential new products providing very good control *(noted as green rectangles in the accompanying picture)*. A field day for interested individuals to view these plots was also organized. It is hoped that the most effective product *(Plinazolin, not currently registered for usage in alfalfa)* will be available for usage before the end of 2025.

Green rectangles are associated with excellent spider mite control by products in this field trial conducted in the Palo Verde Valley near Blythe, California

Cotton Project- next page

Crop Production and Entomology

Cotton: Five (5) trials evaluating products in cotton to document their efficacy in mitigating summer heat and increasing cotton yields were conducted. While data are still being obtained *(harvest of cotton from all plots was not completed by December 31),* initial data indication increases from 0.25-1.0 bales/acre. If proven accurate by certified scales at the local cotton gin, the last number (1 bale of cotton lint/acre) would be valued at over $335/acre at the current market price of $0.70/lb of lint.

A funded cotton project to document daily shed of developing cotton reproductive structures also was conducted from mid-June to mid-August. Data from this continuation project from 2023 are very similar to those noted from the summer of 2023, and indicate that producers need to move their initial heat mitigation applications to mid-June rather than wait until July to begin.

Meetings/Presentations/Other

Three (3) invited presentations were developed and delivered on alfalfa insect control across the desert southwest, with an additional invited presentation for the 2024 California Alfalfa and Forages Symposium. Additional alfalfa insect control presentations were made at the national Entomological Society of America meetings, and two presentations/posters accepted on alfalfa responses to biostimulants delivered at western and national meetings of cooperative extension peers in agriculture/natural resources.

Organized meetings and events included a dehydration onion/garlic production meeting, a field day for the alfalfa miticide trial, and the poster session for the 2024 California Alfalfa and Forages Symposium.

Michael Rethwisch
Crop Production and Entomology Advisor
Palo Vere Valley Office
mdrethwiusch@ucanr.edu

Serving as coach of the 2024 California 4-H Horticulture team was challenging due to distances involved, thus all training prior to arriving at the national contest was done via zoom and newly developed training materials. The California team placed 1st in the national contest, with individuals placing 1st, 2nd, 5th and 11th. The California team was also the highest scoring team in 5 of the 6 contest areas (written test, and each of the four identification areas: landscape ornamentals, flowers/indoor plants, fruits/nuts/berries, and vegetables), and were 7.5% higher than the 2nd place team (Florida).

Local UCCE advisor coaches 1st place 4-H team

California horticulture national champs win by over 100 points

BY URIEL AVENDANO
TIMES EDITOR

Local University of California Cooperative Extension (UCCE [Riverside County – Palo Verde Valley office]) Farm Advisor (Crop Production & Entomology) Michael Rethwisch has coached California 4-H Horticulture to podium success again in 2024, with the youth team earning first at this year's National Junior Horticultural Association (NJHA) contest.

The California 4-H horticulture squad saw four individual placings as well, with Maya Krishaswamy of Santa Clara County placing first; Jolene Junge of Tehama County placing second; Noemi Nejedli of Santa Clara County placing fifth; and Lucas Gribi of Alameda County placing 11th.

Held in Lincoln, Neb., on Oct. 12, the California 4-H team notably won via an over 100-point advantage over second place – being 7.5% ahead, and delivering an over 1,000-point standout performance (out of a possible 1,440).

The respective standings for this year's NJHA 4-H horticulture team competition were:

1st Place – California
2nd Place – Florida
3rd Place – Kansas
4th Place – Nebraska
5th Place – Maryland

The renowned national contest consisted of:

- *Identifying 100 horticultural specimens (25 from 4 different categories: flowers and indoor plants; landscape ornamentals; fruits, nuts and berries; vegetables);*
- *An 80 question written test;*
- *Eight sets of judging.*

Some of the specimens included this year were dahlia and snapdragon seeds; a hawthorn twig; lilac flowers; maple leaves; eggplant seeds; coffee leaves; and guava fruit.

As noted by Rethwisch, the coach had not actually – in-person – met the team members until they were in Nebraska, as all the training sessions were accomplished via zoom which made understanding size and assessing fine details of specimens challenging.

Additionally, the California 4-H coach lauded individual improvements by the team's competitors – who improved respective scores from this year's California state 4-H Field Day qualifier in Davis.

Rethwisch noted the improvements were indicative of dedication and the individuals' efforts to master multiple aspects of the more difficult national contest.

SUBMITTED PHOTO COURTESY TO THE TIMES

CALIFORNIA 4-H HORTICULTURE TEAM – 2024 National Champions. Pictured (left to right): Michael Rethwisch (coach), Jolene Junge (2nd Place), Maya Krishnaswamy (1st Place), Noemi Nejedli (5th Place), and Lucas Gribi (11th Place).

Integrated Pest Management

Dr. Taravati is an entomologist with over 13 years of experience in pest control and applied entomology. He holds a Ph.D. degree in Entomology from the University of Florida. He also has a Qualified Applicator License issued by the California Department of Pesticide Regulations (CDPR) and a Field Representative Branch II license from the California Structural Pest Control Board (SPCB). He is a regular speaker at various California pest control workshops. He provides pest control training to his clientele groups, such as structural and non-structural pesticide applicators, housing managers and maintenance supervisors, and public agencies. He is a member of the UC-IPM program and covers four densely populated counties in Southern California. He acts as a liaison between the enforcement branch, PCOs, and public agencies. He provides training on the latest pest control tools and methods, structural integrated pest management, proper pest identification, best management practices for specific pests, and pest control laws and regulations. He has presented at many educational meetings and has provided consultations to many PMPs, the general public, housing managers, and governmental employees.

General Services for California Pest Management Professionals and Housing Managers

I provide a range of services to support California pest management professionals and housing managers in effectively managing structural pests. My work is dedicated to promoting integrated pest management (IPM) strategies, reducing pesticide runoff, and ensuring compliance with state regulations while improving pest control outcomes.

Services Provided:

- **Technical Consultation**: I offer expert guidance on pest control strategies, focusing on the latest research in least-toxic pesticide use, exclusion techniques, and alternative treatment options. My services are particularly beneficial for professionals seeking to optimize their pest management practices while adhering to regulatory standards.
- **Training and Education**: I conduct workshops and training sessions designed for pest control professionals and property managers. These events cover critical topics such as baiting strategies, monitoring techniques, and IPM best practices.
- **Regulatory Guidance**: I help pest control operators and property managers understand and comply with regulations set by the California Department of Pesticide Regulation (CDPR) and the Structural Pest Control Board (SPCB). This includes advising on certification, continuing education, and best practices for pesticide application.
- **Research and Implementation Support**: I collaborate with industry professionals and academic researchers to test and refine pest control methodologies, ensuring that California's pest management industry has access to the most effective and sustainable solutions.
- **Public Outreach and Awareness**: I work with communities, housing authorities, and government agencies to raise awareness about safe and effective pest control methods, particularly in multi-unit housing and urban environments.

Organized Event:

- One of my key contributions to the pest management community was organizing the **Pest Insight Workshop** on **December 17, 2024**. This event provided valuable continuing education for licensed professionals and facilitated discussions on critical pest management topics.

Integrated Pest Management

Workshop:

- **Audience:** Pest control professionals across California
- **Participants:** Approximately 40 attendees, primarily from the **Riverside, Los Angeles, San Bernardino, and Orange Counties.**

This workshop provided valuable insights into two challenging urban pest issues: **dark rover ants** and **biting mites**, ensuring that participants gained practical knowledge applicable to their pest management operations.

Workshop Link: Pest Insight Workshop- 12/17/ 2024

Pest Insight Workshop - December 17, 2024

PEST INSIGHT
WEBINAR SERIES

CEUs: 2 hours for both SPCB & CDPR licensees

SPCB
Structural Pest Control Board

CEUs: 1 Technical hour for Branch II Field Reps and Operators AND 1 IPM hour for all license types

CDPR
California Department of Pesticide Regulation

CEUs: 2 "other" category for QALs, QACs, PCAs, Aerial, and Private Applicators

Agenda:

1. ***Technical Troubleshooting of Dark Rover Ant Management Using Baits in California*** 9:10 - 10:10am

Presented by Dr. Siavah Taravati, Area Urban IPM Advisor, Los Angeles Basin

Watch the recording on YouTube

2. ***Preventing and Monitoring for Biting Mites in Homes and Other Structures*** 10:10 - 11:10am

Presented by Dr. Andrew Sutherland, Urban IPM Advisor, San Francisco Bay Area

Watch the recording on YouTube

Through my services, I continue to support California's pest control professionals and housing managers in implementing effective, science-based pest management solutions. By organizing educational events like the **Pest Insight Workshop**, I contribute to advancing professional development in the field while ensuring regulatory compliance and improved pest control practices statewide.

Siavash Taravati (He/Him/His), Ph.D., QAL, FR Branch II
Area Integrated Pest Management Advisor
UC Cooperative Extension, Riverside County
2980 Washington St.
Riverside, CA 92504 (New)
Email: staravati@ucanr.edu
Webpage 1: http://urbanipmsocal.com

Master Gardener Program

The UC Master Gardener program began the fiscal year with 241 Master Gardeners. During the reappointment process, several MGs resigned due to health concerns, family matters, or relocations outside of Riverside County. Despite these changes, the program continues to thrive and remains committed to offering expert horticultural advice and support to the community.

Events

UC Master Gardener Volunteers represented the UC Master Gardener Program at 66 Public information Events across Riverside County. These events included well known community gatherings such as Lavender Festival, Home & Backyard Show, Southern California Fair, and various Farmers Markets located in Palm Springs, Riverside, Murrieta, Corona and Temecula. The impact of their efforts was significant, as they provided valuable information to 7,927 residents throughout Riverside County. This outreach not only enriched the community's gardening knowledge but also strengthened the connection between residents and the University of California's science-based gardening programs.

Master Gardeners at the Home & Backyard Show

Janis providing gardening information to the public

Buddy and Pat at the Palm Spring Farmers Market.

The UC Master Gardener Program of Riverside County was once again invited to participate in the 24th Annual Science, Technology, and Engineering Conference (STEPCon) where over 2,500 students from schools across Riverside County attended the event. UC Master Gardeners volunteers hosted an interactive table focused on arthropods. Students were excited to engage in the "Arthropod Spin-the-Wheel" activity, where they identified whether the arthropods were pests or beneficials in the garden. Students were also fascinated by the arthropod display case.

Master Gardener Program

The Helpline serves as a valuable resource for community members seeking assistance with horticulture-related questions, offering expert guidance on topics such as plant care, pest management, gardening techniques, and sustainable landscaping. Through its services, the Helpline has successfully assisted 244 individuals, providing the information and support needed to enhance their gardening practices.

In order to enhance its effectiveness and accommodate the program's growth, the UC Master Gardener Helpline underwent a revamp during the last six months of the year. These changes were designed to streamline operations, increase accessibility, and ensure that the helpline could better meet the expanding needs of the community. As part of this transformation, the West Riverside and Coachella Valley Helplines were merged into a single, countywide Helpline. This consolidation will optimize our services and offer more consistent horticultural assistance to residents across Riverside County.

To support this change, we formed the Helpline Team and conducted two training sessions. The goal of the training was to equip the Master Gardener Volunteers with accurate information and resources available through UC ANR, enabling them to provide the public with reliable, science-based answers. A second goal was is provide all volunteers with a broader understanding of the countywide landscape. Twenty-three Master Gardeners participated in the training and are now well-equipped to handle Helpline inquiries. Additionally, a network of subject matter experts was established to support volunteers seeking guidance from other Master Gardener Volunteers. This collaborative approach will foster a strong team of Master Gardeners who can learn from and support one another.

UC Master Gardener Ruben Arias taught the STEPCon participants about arthropods.

UC Master Gardener Steven Moreno monitored the Arthropod "Spin the Wheel" activity.

Rosa Olaiz
UC Master Gardener
Volunteer Services Coordinator
rmolaiz@ucanr.edu

UC Master Gardener Helpline
Riverside County:
anrmgriverside@ucanr.edu

Plant Pathology

The Plant Pathology Advisor works to support farmers, pest control advisers, and agricultural professionals in Imperial, Riverside, and San Diego counties by providing research-based solutions for managing plant diseases. Through education, research, and technical assistance, the advisor helps diagnose, prevent, and control plant diseases in various crops, improving agricultural productivity and sustainability. She also collaborates with industry and regulatory agencies to address emerging disease threats and develop effective management strategies.

Education

Last summer, the Plant Pathology Advisor participated in a **CAPCA meeting in La Quinta** that provided continuing education for PCAs and growers in Riverside County, especially those in the Coachella Valley. The advisor offered insights on onion downy mildew, a disease caused by the fungus *Peronospora destructor*, which posed significant challenges for onion growers in the Imperial, Coachella, and Palo Verde valleys this past season. Additionally, this disease facilitated infections by other secondary and equally destructive pathogens, such as *Stemphylium vesicarium* and *Alternaria porri*. In her presentation, the advisor delved into the biology of these pathogens and discussed integrated pest management (IPM) strategies aimed at mitigating their impact.

Additionally, at a **Latino Farmer Gathering in Coachella**, the advisor connected with small Latino farmers in the region, introducing them to available plant pathology resources and discussing ways her program could support their agricultural production (Figure 1).

Figure 1. Plant Pathology Advisor, Ana M. Pastrana, speaking at a Latino Farmer Gathering.

Plant Pathology

Research

In terms of disease diagnosis, some Golden Dew melon vines in the Palo Verde Valley were observed exhibiting sudden wilting and death (Figure 2). The diseases were identified as charcoal rot caused by *Macrophomina phaseolina* and Fusarium crown and root rot caused by *Fusarium falciforme*. The collaborating PCA was informed of the diagnoses and provided with management strategies for both the affected crop and the cropping soil area moving forward.

Figure 2. Golden Dew melon vines in Palo Verde Valley exhibiting sudden wilting and death in the field (left) and before analysis in the laboratory (right).

Ana M. Pastrana León
Plant Pathology Advisor
Imperial, Riverside, and San Diego Counties | UC ANR
1050 East Holton Road
Holtville, CA 92250-9615
ampastranaleon@ucanr.edu
Phone: 442 238 3950

The Small Farms and Specialty Crops Program

The small farm of the Inland Empire focuses on the challenges and issues affecting small scale and specialty crop producers in the Inland Empire. The program aims to provide culturally and linguistically appropriate outreach in order to enhance the skills and abilities of socially disadvantaged, small scale, limited-resource, and specialty crop producers to make important management decision such as crop selection, variety development, sustainability, weed control, pest and disease management, irrigation practices, postharvest handling and storage, food safety, pesticide safety, marketing strategies, agritourism, financial and risk management, and more. The program fosters field research trials, educational programs, technical assistance,and publications that support and encourage the sustainability of diverse, thriving small farms. In addition, the program intends to strengthen connections between small scale and specialty crop producers and local and government agencies (USDA, CDFA) and programs to facilitate increased access to resources and program participation. The program support farmers in all phases of their farming business development to improve their farming operations .

Workshops

In preparation for Food Safety Modernization Act (FSMA) compliance, we conducted two workshops in Riverside County, with each session drawing more than 15 participants. The workshops covered food safety subjects and helped farmers obtain a Produce Safety Alliance Grower Training Certificate. Topics covered included introduction to Produce Safety, Worker Health, Hygiene, and Training, Soil Amendments, Wildlife, Domesticated Animals, and Land Use, Agricultural Water (Part I: Production Water; Part II: Postharvest Water), Postharvest Handling and Sanitation, and How to Develop a Farm Food Safety Plan. Food safety courses are available. If any farmers are interested in learning more, please reach out.

Workshop for producers

The Small Farms and Specialty Crops Program

Research

Avocado density trial: The primary objective for this project was to produce the maximum amount of fruit per acre on a sustained basis. It appears that high density production is a viable way to increase income per acre and can help growers in high water-cost areas stay in production.

Jujube grafting and variety trial: The primary objective for this project is to determine the best way to graft jujube. Prices for jujube saplings have doubled in the last 5 years and farmers showed tremendous interest in learning the best methods to graft jujube. We are also growing different varieties, to see what varieties produce the best crop in the region.

Tomato Powdery Mildew Evaluation Trial:

The small farm team recently conducted a powdery mildew evaluation trial on tomatoes to assess the effectiveness of organic treatments. Powdery mildew, a common fungal disease, poses significant challenges for tomato growers, particularly those using organic practices. The trial aimed to identify sustainable solutions that can effectively manage this disease while maintaining soil health and crop quality. Preliminary results from the trial provide valuable insights into treatment efficacy and will help guide recommendations for local tomato producers. For more information or trial findings, please contact the small farm team.

Jujube variety Trial

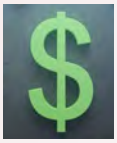
Mildew disease on tomato

Tomato Mildew Trial

The Small Farms and Specialty Crops Program

GRANT AVAILABILITY

The 2023 California Underserved and Small Producers Grant Program (CUSP) is designed to facilitate support for small and medium scale California agricultural producers, or small and medium scale Socially Disadvantaged Farmers and Ranchers through technical assistance with business planning and marketing strategies. Up to $20,000 are available to farmers in the region. During this reporting period, over $100,000 has been awarded to farmers in the Inland Empire (IE). If you are interested in this grant, please reach out.



CUSP grant awarded to producer

Impact of Fire

Wildfires have severely impacted farmers in the Inland Empire, posing challenges such as crop loss, soil degradation, infrastructure damage, and disruptions to market access. Smoke exposure can reduce the quality of produce, while damaged irrigation systems, fencing, and storage facilities hinder operations. Fires also leave soil exposed, increasing erosion and nutrient loss, and poor air quality affects the health of farmers, workers, and livestock. The small farm team is actively assisting farmers in recovery efforts, including assessing and documenting damages for insurance claims, accessing state and federal disaster relief programs, and implementing fire-resilient practices like erosion control and replanting strategies. We also provide guidance on soil recovery through amendments and cover crops and support infrastructure rebuilding. If you've been affected by wildfires, please reach out to our team for tailored assistance and resources to rebuild and enhance resilience.

Fire damage to well infrastructure

Orchard affected by fire

Hung Kim Doan
Advisor
Small Farms & Specialty Crops Riverside & San Bernardino Counties,
hkdoan@ucanr.edu
Cell: (408) 717-0161

Jiana Choi
SRA-II
Small Farms & Specialty Crops Riverside
jchoi@ucanr.edu

Madeline Morataya,
Community Educator 3,
Small Farms & Specialty Crops Riverside
mmorataya@ucanr.edu

Vegetable Crops

Riverside County is comprised of four districts including Coachella Valley, Palo Verde Valley, Riverside/ Corona, and San Jacinto/Temecula Valley, collectively account for vegetable production valued over $328 M in 2022 of which head lettuce, carrot, and broccoli are the top 3 commodities. Coachella Valley is considered a '**Winter Salad Bowl'** of California and even the country, where most cool-season leafy greens are grown. Cool season, winter and early spring vegetable crops include broccoli, Brussels sprouts, cauliflower, cabbage, lettuce, carrot, celery, and artichoke among others. Warm season fruiting vegetables include bell pepper, okra, tomato, watermelon, cantaloupes, and eggplant. Our research and extension efforts are directed at addressing vegetable production challenges with an emphasis on managing pests and diseases, soil health, and soil fertility. In addition, we continue to work with Native American Tribes and other marginalized communities to support food sovereignty and improve access to healthy food through backyard gardening planting vegetables and fruit trees.

Research Projects

We continue to work with Torres Martinez Desert Cahuilla Indian Tribe in Coachella Valley on **backyard gardening**. We have recently established an 8 raised bed senior garden at their reservation planting different vegetables and flowering plants (Figure 1). We established a sweet onion trial now in its second year of the USDA/NIFA funded project. We are currently screening 40 short-day sweet onion varieties for relative firmness to mechanize harvesting. These varieties are commercially available and sourced from seed companies. We also completed two CDFA funded cover crop trials for managing soil health, nematode, and nitrogen (Figure 2). In addition, we completed CA Melon Research Board funded trial evaluating efficacy of root leachate and reduced-risk nematicides on root-knot nematodes on cantaloupes. Furthermore, we completed an insecticide trial on broccoli and completed a biofumigant nematicide trial on carrot.

Figure 1. Torres Martinez Desert Cahuilla Indians Senior Garden at the Tribal Reservation in Coachella Valley established in collaboration with Riverside CalFresh team.

Figure 2. Cover crop experiment with Sudan grass, sun hemp, and cowpea at Coachella Valley Agricultural Research Station.

Vegetable Crops

Meetings, Talks and Interview:

We hosted a 'Summer Cover Crop Field Day' demonstrating benefits of cover crops, how to estimate nitrogen from cover crop biomass, and when and how to terminate them (Figure 2). We also co-hosted clientele meetings including 'Fall Desert Crops Workshop', and 'Organic Production and Food Safety Workshop'. We spoke at clientele meetings including 'Growing Coachella Valley' monthly meeting, CA Pest Control Advisors Desert Valleys Chapter Continued Education Meeting in both Imperial and Coachella Valleys, and Latino Farmers Meeting in Coachella and Imperial Valleys. In addition, we delivered a at the NACAA/AMPIC in Dallas, TX. Part of our work with Native American Tribe in Coachella Valley has been featured in 2024 UC ANR Native American Heritage Month (https://youtu.be/At6J7YWRZj0).

Collaboration:

We successfully recruited volunteers mostly retirees to harvest okra weekly for three weeks (Figure 3). After weighing okra fruits for data, the fruits were shared with UCCE San Bernardino/Riverside Master Food Preserver Program Coordinator Dee Denton and her team to prepare pickled okra (Figure 4) – Thank you to the Community Education Specialist Roxana Price from Expanded Food Nutrition Education Program to connect us with Dee and her team.

Figure 3. Volunteers assisting with harvesting okra at the California Department of Food and Agriculture funded healthy soil demonstration project field trial at the Coachella Valley Agricultural Research Station.

Figure 4. Pickled okra prepared by UCCE San Bernardino/Riverside Master Food Preserver Program team (Photo courtesy of Dee Denton).

Vegetable Crops

Activities

In the past 6 months, we responded to more than 20 grower field calls, co-hosted 3 clientele meetings including 2 Latino Growers' Meeting, 35th Annual Fall Desert Crop Workshop, and hosted Summer Cover Crop Field Day. We spoke at 2 Pest Control Advisors' Meeting, an Onion/Garlic Production Meeting, Organic Production and Food Safety Workshop, and Growing Coachella Valley Monthly Meeting. Four field trials have been completed and published 2 extension newsletter articles. In addition to delivering services directly to clientele, we also involved in Professional Competence and University/Public Services. As far as the University and Public Services, we provided a support letter for UC professor for tenure promotion, hosted UCR graduate class at our trial site, and serving in leadership roles as Membership Committee Chair with the Society of Nematologists and as Western Regional Committee Vice-Chair for Professional Excellence with the National Association of County Agricultural Agents. In terms of Professional Competence, we delivered a talk at the National Association of County Agricultural Agents Professional Improvement Conference.

Publications

We published a first-authored extension newsletter article in Imperial County AgBriefs entitled 'Efficacy of reduced-risk nematicide on cantaloupe in low desert growing conditions' (Ag_Briefs104121.pdf). This research examined the effects registered nematicides and unregistered nematicides in California. We also co-authored an extension publication entitled 'Evaluation of Physical Barriers to Suppress Purple Nutsedge (*Cyperus rotundus*) in Landscape Beds in Maui, Hawai'i' (ctahr.hawaii.edu) with colleagues at the University of Hawaii. This article explores organic nutsedge management options with applications in California. We published an abstract at the National Association of County Agricultural Agents Annual Meeting and Professional Improvement Conference (NACAA/AMPIC) and American Phytopathological Society Plant Health (APSPH).

Philip Waisen (Ph.D.)
Vegetable Crops Adviksor
pwaisen@ucanr.edu
Ceriverside.ucanr.edu
Researchgate.net/profilePhilip-Waisen
(760) 342-2467-Office
(760) 905-5204-Cell

Woody Biomass and Bioenergy

Woody Biomass and Bioenergy encompasses innovative extension education programs and applied research associated with the use of forest resources and biomass and bioenergy development in Riverside and San Bernardino Counties. The program investigates opportunities and strategies for increasing the use of woody biomass through development of biofuels and bioenergy as well as other products. The programs also aim to integrate efforts to enhance biomass management and natural resources manufacturing for reducing community risk from wildfires. The goal of the biomass and bioenergy program is to develop and extend research-based information on converting woody biomass into fuels for transportation and other products consistent with the California Forest Carbon Plan.

California Senate Hearing

On Aug 6, 2024, I spoke to the State Legislature Select Committee on Building a Zero-Carbon Hydrogen Economy on Aug. 6.

I shared insights from a policy brief on how low-carbon and carbon-negative fuels – such as hydrogen produced from agricultural residues, woody biomass and municipal solid waste – can help California achieve its greenhouse gas reduction targets.

Investing in clean hydrogen and green ammonia could provide outsized benefits to communities in California as the state could meet 95% of its 2050 hydrogen demand by using waste biomass. I outlined the steps for success: creating green hydrogen markets using woody biomass and agricultural residues, investing in hydrogen derivatives such as ammonia and developing green ammonia facilities, and establishing supportive procurement policies.

Regular Session: Select Committee On Building A Zero-carbon Hydrogen Economy, Tuesday, August 6, 2024

Woody Biomass and Bioenergy

California Economic Summit 2024

I have been participating and presenting at conferences/seminars to network and advocate for UC ANR Woody Biomass and Bioenergy program awareness and support, sharing research results and ideas with a wider range of audiences. One such example was California Economic Summit held in Sacramento, CA in October 2024. The summit featured keynote speakers, state policy leaders, regional business and civic leaders on critical issues facing California. The conference provided an opportunities to explore innovative ways to utilize woody biomass to reduce wildfire risks and produce low carbon or carbon-negative fuels such as hydrogen. This year's Economic Summit underscored the importance of investing in our working landscapes, emphasizing the significant opportunities for job creation and economic growth across the state that can be realized through such investments. I was joined at the event by Glenda Humiston, VP UC ANR and Rita Clemons, director of UCCE for San Bernardino, Riverside and Orange counties, among several other advisors.

Biochar Marketing Strategy Contract

In October 2024, I received a contract from the Joint Institute for Wood Products Innovation to develop a marketing strategy and producer and consumer guide for biochar in California. This project aims to foster the growth of the California biochar industry by developing a comprehensive marketing strategy and creating valuable resources for producers and consumers. Key activities include market research, stakeholder engagement, the development of a comprehensive guidebook on biochar production and applications, and the creation of educational resources such as webinars and an online resource hub. This initiative will help bridge the gap between biochar production and market demand, positioning California as a leader in biochar utilization and contributing to the state's goals for wildfire resilience and carbon neutrality.

Biochar application in agriculture

Haris Gilani
Woody Biomass and Bioenergy Advisor
hgilani@ucanr.edu
951-955-2601

Staff

Area County Director	**Clemons**, Rita	rlclemons@ucanr.edu
University Programs and Staff		
4-H Youth Development	**Barrett**, Stephanie, *CMTY EDUC SUPV 1*	slbarrett@ucanr.edu
4-H Youth Development	**Rendon,** Leslie, *CES II, Coordinator*	lrendon@ucanr.edu
Climate Action and Land Equity	**Richards**, Chandra, *Land Equity Academic Coordinator II*	cmrichards@ucanr.edu
Community Nutrition and Health	**Meng**, Yu, *Youth, Family, and Community Advisor*	ucmeng@ucanr.edu
~ CalFresh Healthy Living	**Carlos,** Claudia, *Program Supervisor*	cfcarlos@ucanr.edu
~ CalFresh Healthy Living	**Gaspar,** Marlen, *CMTY EDUC SPECL II*	mgaspar@ucanr.edu
~ CalFresh Healthy Living	**Alonso,** Alondra, *CMTY EDUC SPECL II*	aalon@ucanr.edu
~ CalFresh Healthy Living	**Zavala,** Michelle, *CMTY EDUC SPECL II*	miczavala@ucanr.edu
~ CalFresh Healthy Living	**Nunez**, Esmeralda, *CMTY EDUC SPECL II*	eannunez@ucanr.edu
~ CalFresh Healthy Living	**Nunez**, Vianca, *CMTY EDUC SPECL II*	vnunez@ucanr.edu
~ EFNEP	**Davidson,** Christine, *Program Supervisor*	cdavidson@ucanr.edu
~ EFNEP	**Price**, Roxanna, *CMTY EDUC SPECL II*	roxprice@ucanr.edu
~ Master Food Preserver	**Denton,** Dee Denneigh, *MFP Coordinator*	djdenton@ucanr.edu
Crop Production and Entomology	**Rethwisch**, Michael, *Farm Advisor*	mdrethwisch@ucanr.edu
Integrated Pest Management	**Taravati**, Siavash, *Area IPM Advisor*	staravati@ucanr.edu
Master Gardener Program	**Olaiz**, Rosa, *MG Volunteer Service Coordinator*	rmolaiz@ucanr.edu
Natural Resources	**McDonald**, Chris, Ph.D., *Advisor*	cjmcdonald@ucanr.edu
Plant Pathology	**Pastrana**, Ana M., *Advisor*	ampastranaleon@ucanr.edu
Small Farms and Specialty Crops	**Doan**, Hung, *Advisor*	hkdoan@ucanr.edu
Small Farms and Specialty Crops	**Choi,** Jiana, *Staff Research Associate I*	jchoi@ucanr.edu
Small Farms and Specialty Crops	**Rodriquez**, Madeline Moratay, *Small Farm Community Educator*	mmorataya@ucanr.edu
Urban Watershed Resilience	**Lofton**, Esther, Ph.D., *Advisor*	enmosase@ucanr.edu
Vegetable Crops	**Waisen**, Philips, *Farm Advisor*	pwaisen@ucanr.edu
Woody Biomass and Bioenergy	**Gilani**, Haris, *Advisor*	hgilani@ucanr.edu
County Support Staff		
Executive Assistant III/Office Manager	**Shein**, Noreen	N.Shein@ruhealth.org
Office Assistant III, Riversisde	**Nguyen,** Minh	Mi.Nguyen@ruhealth.org
Office Assistant I, Blythe	**Tippit**, Suzanne	S.Tippit@ruhealth.org
Volunteer Services Coordinator;		
~ Master Gardener	**Olaiz**, Rosa**,**	R.Olaiz@ruhealth.org
~ 4-H	**Rendon,** Leslie	L.Rendon@ruhealth.org
~ Master Food Preserver	**Denton,** Dee Denneigh	D.Denton@ruhealth.org

UNIVERSITY OF CALIFORNIA
AGRICULTURE AND NATURAL RESOURCES (UC ANR)
NONDISCRIMINATION STATEMENT FOR UC ANR
PUBLICATIONS REGARDING PROGRAM PRACTICES

[*Full text of USDA's nondiscrimination statement can be found at* Non-Discrimination Statement | USDA]

April 2023

In accordance with Federal law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, University of California Agriculture and Natural Resources (UC ANR) is prohibited from discriminating on the basis of race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, age, disability, income derived from a public assistance program, or reprisal or retaliation for prior civil rights activity. Remedies and complaint filing deadlines vary by program or incident.

Program information may be made available in languages other than English. Persons with disabilities who require alternative means of communication to obtain program information (e.g., Braille, large print, audiotape, American Sign Language) should contact the UC ANR Office of Diversity & Inclusion, phone: 530-786-0206, email: dewhite@ucanr.edu or USDA's TARGET Center at (202) 720- 2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

Alternatively, a program discrimination compliant may be filed with the UC Harassment & Discrimination Assistance and Prevention Program (HDAPP) by email hdapp@ucdavis.edu or phone: 530-304-3864; or contact the UC ANR Title IX Coordinator at (530) 752-9466.

University of California Agriculture and Natural Resources (UC ANR) is an equal opportunity provider.

Inquiries regarding the University's nondiscrimination policies may be directed to: UC ANR, Interim Affirmative Action Compliance Officer, University of California, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1280. Email: tljordan@ucanr.edu. Website: http://ucanr.edu/sites/anrstaff/Diversity/Affirmative_Action/.