

UC Cooperative Extension Merced County

ANNUAL REPORT FOR 2013 YEAR

University of California
Agriculture and Natural Resources



University of California, United States Department of Agriculture, and Merced County Cooperating

Long before the almond trees were blooming, our Farm Advisors were already talking to farmers, preparing formal presentations and organizing meetings to help Merced agriculture cope with the anticipated loss of water supplies. This is a drill we have been through before except the communication tools today also include the internet and social media. Our Master Gardeners have always included being water-wise in their overall curriculum and they are available to give presentations when called upon. All the while our 4-H program continues to grow and Merced's youth are growing with it. Our nutrition educators are increasing their outreach and are helping our citizens to learn healthier eating choices. UCCE is pleased to continue to serve and contribute to the health of our community's families and agriculture. It has been a successful year and our dream is to continue to grow and serve.



4-H Youth Development Program

Russell Hill, 4-H Youth Development Program Advisor

Darlene McIntyre, 4-H Representative



California 4-H celebrated its 100th anniversary in 2013. For 100 years, 4-H youth have brought information and innovation solutions to their families and communities that has served to strengthen agricultural technology and that tradition continues today.

For the next 100 years, 4-H youth will be the ones to solve our most complex societal challenges – such as obesity, poverty, depletion of natural resources, climate change, unemployment, and food insecurity. 4-H youth will be the leaders for change – this is our Revolution of Responsibility!

In 2013 Merced County 4-H based its focus on Club delivery and Camp. Sixteen clubs represent 989 youth and 234 adult volunteers. A new club, Forebay 4-H, was chartered in Santa Nella in December.

Our 4-H youth are learning leadership and goal-setting skills and how to become community-minded adults through youth-adult partnerships. Youth leaders, club officers, county All Stars and club leaders participated in an Officer Retreat at the 4-H Office in



Merced. Junior high and high school youth participated in Leadership Conference of Regional Teens (LCORT), CAL Focus, and State Leadership Conferences. Youth spent 2-3 days attending leadership workshops and meeting 4-H youth from other counties.

Several 4-H youth were involved in service learning projects to help the community. The Ballico-Cressey 4-H Club built a school garden at Ballico Elementary School, Lander 4-H Club organized a sewing workshop and made Little Dresses for Africa, and Weaver 4-H Club organized a toy drive and coat donation drive during the holidays.

The 2013 Science and Adventure Camp focused on Aviation where 19 high school staff, 21 adult chaperones, and 95 campers in 4th-8th grades worked together for 5 days and 4 nights at Camp Sylvester in Pinecrest. The focus included learning about rockets and aviation. The youth also learned how to make hot air balloons.



We ended the year with our annual Leaders Appreciation Night at The Merced Theater. In addition to enjoying the movie *The Green Promise*, the Clover Awards for each five years of leadership are presented by 4-H, city, county, state, and national representatives to the volunteers.

UC Agriculture and Natural Resources to Mark UC Cooperative Extension Centennial in 2014

Cooperative Extension was established by an act of Congress - the Smith-Lever Act of 1914. Lawmakers sought to boost agricultural productivity and enhance the lives of rural families by creating a service that channels research advances from college campuses to rural Americans. Anticipating passage of the Smith-Lever Act, Thomas Forsyth Hunt, UC Berkeley's ag college dean, brought B.H. Crocheron from Maryland in 1913 to organize California's Cooperative Extension Service. Crocheron hired advisors in Humboldt, San Diego, San Joaquin and Yolo counties in 1913.



We invite all Merced County citizens to join us in celebration of the 100 years of cooperation between Merced County, the University of California, and the California and United States governments in serving our community and our state.



Master Gardener Program

David Doll, Farm Advisor
Kristine Randal, Program Representative



As an arm of the University of California Cooperative Extension (UCCE), the mission of the Master Gardener Program (MGP) is to disseminate research-based horticultural information to the general public. In 2013, after extensive training, our MGP offered four, free-to-the-public, educational workshops on the popular topic of edible landscaping. The Master Gardeners staffed an informational booth for each day of the County Fair and also received a First Place and Best in Show of an Asian-themed, demonstration garden. The UCCE MGP has participated in over 56 public events, including rose and fruit tree pruning workshops, farmers markets, and numerous gardening projects. Our UCCE office-based, MG help-line desk and new email service are available to answer questions from the gardening public.



Volunteers: 38 Community Events: 56 Direct Contacts: 2,15 Volunteer Hours: 1,881

Trees and Vines

Maxwell Norton, Farm Advisor



I am the County Director (department head) for Cooperative Extension. I am responsible for all operations here at the Merced office.



I also assist farmers with questions related to tree fruit, wine grapes and berries. I also have expertise in farmland trusts and ag tourism. Each year I put on a big regional peach meeting and a strawberry meeting. I guest lecture at many events each year.

One project that I really enjoy is teaching the Ag Day for Leadership Merced. This is an intensive one day crash course on agriculture and the economy with a sprinkling of policy issues. Participants get to visit leading ag businesses in the county and learn about their contribution to the regional economy.



Vegetable Crops

Scott Stoddard, Farm Advisor



Early spring establishment of a turf demonstration plot at the UC Master Gardener Community Garden at Madera Community College was done with the assistance of West Coast Turf in Merced. Six different turf variety/variety combinations were installed so that people could easily see differences in growth characteristics.



A 1-acre drip irrigated test plot area was installed at Merced College to evaluate the efficacy of various materials (fertilizers and insecticides) on the growth and yield of fresh market tomatoes. A total of 6 different trials were conducted at this site, and the plots were shown to students on three occasions. Other tomato trials were conducted on-farm and at UC research stations.



Sweetpotato projects include variety evaluation, irrigation, and pest management. Here, a new cultivar called LSU52 was evaluated in several on-farm trials in Atwater and Livingston. Collaborative variety evaluation trials have proven to be an effective way to maintain high yield and quality for the California sweetpotato industry.

Livestock and Natural Resources

Fadzayi Mashiri, Farm Advisor



Since 2013 was my first year in this position, I wanted to focus my effort on better understanding the specific production and management problems that the ranching community deal with that I can help them address. To do this I conducted a needs assessment to get feedback from the producers. The main issues that came up from this included weed management, drought, livestock diseases, and forage production and management in both annual grasslands and irrigated pastures. In an effort to start addressing some of these issues, I established two trial sites to demonstrate how to control the invasive grass medusahead using Milestone (Aminopyralid). I am planning to host a field day on one of the sites in spring to discuss the results. I am also organizing a grazing ecology and management workshop that will also cover the topic of drought management in March 2014.



Pomology

David Doll, Farm Advisor



Several almond trials around the County were established in areas with the presence of *Prunus* replant disease and nematodes. They compared soil fumigation treatments. Telone-II broadcast and Telone-II C35 rowstrip treatments have consistently out-performed the unfumigated control.

A pruning study was established in a Merced County Orchard in 2011 comparing unheaded, minimally pruned walnut trees to traditionally pruned walnut trees. Yields from the first year of production (3rd leaf, 2013) were doubled in the unheaded walnut trees in comparison to the pruned treatment (1347 lbs/acre v/s 670 lbs/acre). In the past year, 26 presentations were delivered and 135 farm visits were made to almond, walnut, and pistachio growers. All of these meetings have been open to the public, in areas easily accessed by individuals with disabilities, with all of them free of charge. Weekly updates of the website *The Almond Doctor* (www.thealmonddoctor.com) were also continued and website traffic has continued to increase.



Dairy

Alejandro Castillo, Farm Advisor



The Dairy Extension and Research program in Merced County for 2013 emphasized: Outreach and on-farm research projects in combination with UC Davis researchers.

Regarding the results of the 'Mineral Balances in Merced County Dairy Farms' project, I organized a meeting at the UCCE Merced classroom for dairy producers and managers in January 2013 to present the main results of this project. The mineral project results were published in the Journal of Dairy Science and included a complete description of lactating cows dietary mineral contents and different mathematical models to estimate mineral excretion in dairy cows. These results will have an important impact on dairy farms by reducing dairy cows mineral intake and mineral excretion. I published: three abstracts in scientific meetings, two scientific papers in peer reviewed journals, and six extension articles and newsletters. A scientific paper was prepared with researchers from UC Davis and submitted to the Journal of Dairy Science using information of dietary nutrient contents from Merced County dairy farms, to predict methane production in California dairies and to mitigate this green house gas emission through different nutritional strategies. Three radio programs (Radio Lobo, Radio Merced) related to "drinking milk and human health" were also carried-out in 2013.

During 2013, I did exploratory research to help dairy producers improve the efficiency of minerals management and utilization. I collaborated with UC Davis researchers in the following two projects, "Risk assessment, welfare analysis, and extension education for dairy calf respiratory disease management in California" and "Reducing Dairy Silage Emissions for Improved Air Quality and Productivity"; and I have been actively participating, discussing and writing with UC Davis researchers on the following two projects (grants pending): "Developing Farm-scale Model for Predicting the Impacts of Pathogenic Bacteria of Dairy Manure on Agriculture and Ground and Surface Water", and "Adaptation of dairy cattle to heat stress in California".



Nutrition, Family, and Consumer Science

Terri Spezzano, Nutrition, Food, Consumer Science Advisor

Liliana Agundis, CalFresh Representative



The UC CalFresh Nutrition Education Program throughout Merced County has helped families learn how to read a food label, increase their overall nutritional knowledge and how to plan to be able to manage healthier food alternatives with limited resources. The program incorporates hands-on activities, discussion, easy recipes and taste testing. Thanks to all the partners, we have been able to reach about 2,635 contacts throughout the year through our nutrition education series, one-time presentations and the finance program.

The focus of 2013 was to convert our program over to a farm to school / community model. Our goal is to use the school as the point of contact for all of our UC CalFresh education. In this way we can reach the whole population of a community. We educate families, students, teachers, food nutrition staff, and school site staff from farm to fork. UCCE Merced and Stanislaus have developed workshops for school nutrition service to educate staff in nutrition education and the new guidelines so they are better able to communicate nutrition education to the students and the teachers as well as understand their position and new guidelines.



All of our teachers also receive training in grade-specific curriculum based on common core standards as well as monthly vegetable or fruit tastings. We work closely with the School Nutrition Service Directors and local farmers to be sure the featured produce is available locally and on the menu at the school. These tastings are accompanied by our "Dirt Fresh News" newsletter. This newsletter is bilingual (English/Spanish) and features the produce and the farmer that produces it.

Our family-centered education is also focused at the school sites and local Parent Resource Centers. In the spring and fall we also work with the parents teaching garden enhanced nutrition in the school / community garden that the children are working in.

With the farm to school/community focus we increased our food tasting and cooking classes to the youth and adults. We increased school/community gardens from 15 to 25 with more to be added this year.

We found 100% of the adults in our classes would eat more than 1 kind of vegetable each day as compared to 0 before the class. We also found that 44% now think about healthy choices for their meals as compared to the State average of 30%.

This year 100% of our teachers found their students can identify a healthy food choice at the end of the year and 89% of the students are now willing to try new foods that are offered. 67% of teachers now find the students bringing vegetables and fruit as snacks (30% were not sure or could not observe students' snacks).

After taking our classes, 40% of the participants reported greater food security and they are not running out of food at the end of the month. 56% now plan their meals and 47% are shopping with a list.



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2145 Wardrobe Avenue ❖ Merced, California 95341-6445 ❖ (209) 385-7403

<http://cemerced.ucanr.edu> ❖ <http://merced4h.ucanr.edu>

email: cemerced@ucanr.edu

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