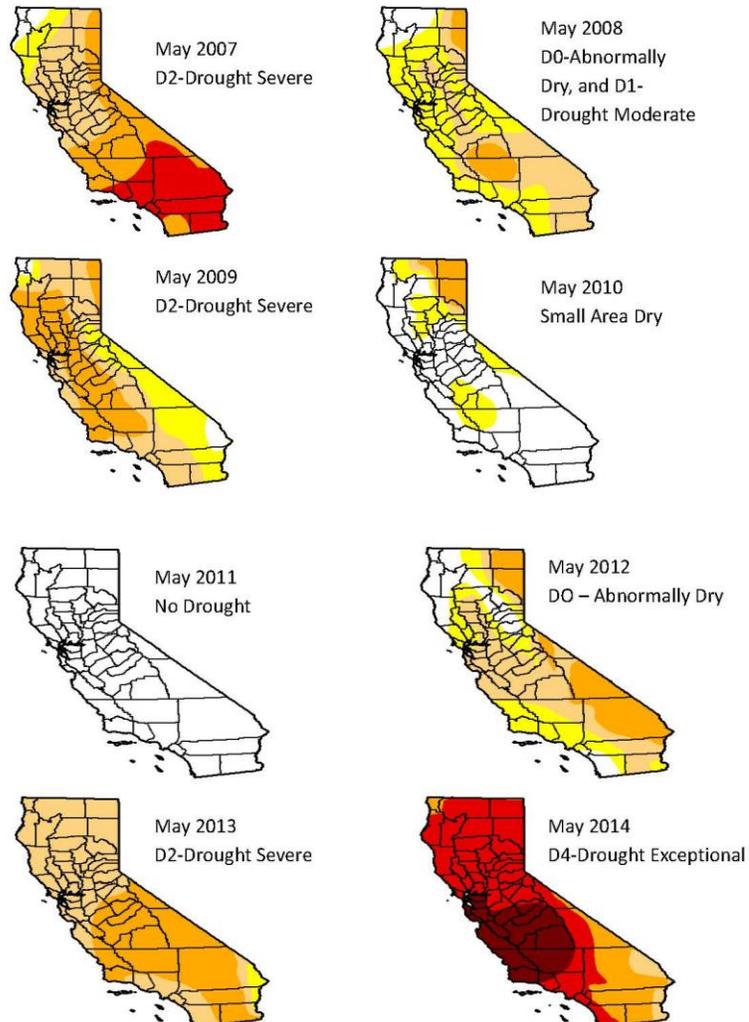




Santa Barbara County Cooperative Extension

Quarterly Report April-June 2014



Progression of drought on the California Central Coast from 2007 through 2014, at time of peak forage production on rangeland (Larsen and Horney, 2014).

Data from the National Drought Mitigation Center | 3310 Holdrege Street | P.O. Box 830988 | Lincoln, NE 68583-0988.

Submitted by: Mary Bianchi
County Director, Horticulture Advisor
Santa Barbara County, July 25, 2014

University of California Programs, Advisors and Specialists in Santa Barbara County

PLANT SCIENCES/HORTICULTURE, led by Advisors **Mark Battany, Mary Bianchi, Dr. Surendra Dara, Dr. Ben Faber, and Dr. Mark Gaskell** specializes in the science and art of growing fruits, vegetables, flowers, and ornamental plants. Advisors conduct local field research to test new crops and varieties that are best adapted to local soil and water conditions and markets, implement improvements in cultural practices and pest control methods, and offer information that optimizes production, conserves natural resources, and protects the environment. Advisors are called upon regularly by growers and the general public to assist in enterprise planning and problem solving.

FIRE ECOLOGY AND MANAGEMENT, led by **UCCE Specialist Dr. Max Moritz**, focuses broadly on scientific questions in fire ecology and management. Research includes analysis of where various fuel management techniques are likely to succeed and be sustainable, mapping of fire weather patterns, and quantifying linkages between fire and climate change. Outreach efforts emphasize fire-related policy decisions and education of the general public to live more safely on fire-prone landscapes.

UC CALFRESH NUTRITION EDUCATION PROGRAM, led by Advisor **Dr. Katherine Soule**, is funded by the USDA and delivered by the UCCE to Santa Barbara County. In collaboration with local partners, UC CalFresh provides evidenced-based nutrition education to low-income individuals and families. The program provides high-quality nutrition education curriculum and training to educators at qualifying schools.

UCCE MASTER GARDENERS, led by Advisor **Mary Bianchi**, provide the primary outreach and extension method for improving horticulture and science literacy for homeowners and back yard gardeners. They provide research based information for home horticulture, pest identification, landscape management, and other environmental and natural resource information. Master Gardeners interact directly with homeowners and back yard gardeners to provide information on sustainable and edible landscapes, water conservation, and environmentally sound solutions for pest problems.

4-H YOUTH DEVELOPMENT PROGRAM, led by Advisor Dr. Katherine Soule

4-H is a positive youth development organization that empowers young people to reach their full potential. A vast community of more than 6 million youth and adults working together for positive change, 4-H enables America's youth to emerge as leaders through hands-on learning, research-based 4-H youth programs and adult mentorship, in order to give back to their local communities. 4-H is the youth development program of our nation's Cooperative Extension System. The 4-H Youth Development Program is brought to the counties by the University of California, Agriculture & Natural Resources.



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July 25, 2014

Cathy Fisher, Agricultural Commissioner
263 Camino del Remedio
Santa Barbara, CA 93110-1335



Hi Cathy:

Attached please find our current **Santa Barbara County UC Cooperative Extension Programs Progress Report (April - June, 2014)**. UCCE Advisors and staff were, once again, active in all program areas in the county during the quarter, including technical expertise and support provided to your Ag Commissioner pathology and entomology staff as well as to the Agricultural Preserve Review Committee, and the Agricultural Advisory Committee. Advisors were involved in extensive outreach and education efforts providing workshops and field meetings as well as innovative social media videos, blogs and facebook posts. You will find as you read through our report, **our programs reached 8,470 youth and adults through face-to-face contacts** in this quarter alone.

Rather than providing a summary of the efforts and value of our work in this letter as I usually do, let me highlight important information released during this quarter by Dr. Royce Larsen, UCCE Area Natural Resource Watershed Advisor, on the impacts of our ongoing drought, and potential implications for forage production on rangelands in Santa Barbara County. We disseminated this information widely to stakeholders in Santa Barbara County, including the Santa Barbara County Farm Bureau, USDA Farm Services Agency, the Agricultural Advisory Committee, Cachuma Resource Conservation District, and Santa Barbara County Cattlemen's Association as well as individual stakeholders. The information from Dr. Larsen's report provided the primary content for the agricultural portion of the Santa Barbara County Drought Task Force's presentation to the Board of Supervisors on June 17th, 2014.

Although 2014 has often been represented as the third year of drought in California, the figure on the cover of this report more accurately reflects the long-term conditions for drought, particularly on the Central Coast. This year's drought impacts are the compounded result of three years of below average precipitation and forage production. However, years 2007 and 2009 were also drought years, and created hardships for those in the Central Coast livestock industry.

Central Coast rangeland producers depend on "available forage" to sustain their cattle. Available forage is the amount of forage that is available for consumption by livestock. This is the total biomass produced at peak production minus the amount that should be left behind to maintain productivity of the site. The unused biomass remaining at the time the first significant fall rains begin is called "residual dry matter" (RDM). Proper amounts of RDM influences how productive annual grassland will be in the following season, and helps protect against soil erosion and nutrient loss.

From more than 20 forage production sites scattered across San Luis Obispo County, Dr. Larsen has estimated the forage production this year at 5% of the long-term average, or a 95% loss from normal production. There was some forage available in the highest rainfall zones. However, forage production

was well below average even in these locations. All other plots sampled either had no available forage (100% loss of normal production) or a very high percent loss. Sites on north-facing slopes or in swales with deeper soils still produced some forage, but less than in more typical years. The same pattern and losses are also expected in Santa Barbara County. Indications are that approximately 75% or more of all cattle have either been sold, or moved to wherever forage could be found, particularly the mountains and adjoining states. We anticipate that on many ranches RDM levels will fall well below recommended guidelines. This means there will be an increased risk for erosion if we get heavy rain storms early in the fall. It also means that it may take several seasons of conservative stocking to return rangeland pastures to more typical productivity again, assuming that Central Coast precipitation recovers to its expected seasonal pattern by this fall.

Dr. Larsen's full report can be found at

http://cesanluisobispo.ucanr.edu/Custom_Program355/Forage_Production_Report/

The University of California is continuing to compile information and resources for clientele, both rural and urban, on strategies to address the ongoing drought impacts. These resources can be accessed through our UCCE Santa Barbara website at <http://cesantabarbara.ucanr.edu/>.

Please let me know if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Mary Bianchi". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Mary Bianchi, County Director and Horticulture Advisor

mlbianchi@ucanr.edu

Viticulture

Advisor Mark Battany

The Challenge

Growers of wine grape vineyards throughout California face challenges with increased competition for limited water supplies and potential changing climate conditions.

Improved information on climate conditions resulting from local field research can provide growers with the knowledge to make the most informed decisions possible to ensure that their vineyards remain productive and economically viable under these changing conditions.

The efficient management of irrigation water will become increasingly more critical in the future. Limitations of water supplies will force all farmers and other water users to generate the maximum possible returns from their available water.

Addressing the Challenge

Improvements in the efficiency of irrigation management can be achieved by having access to more accurate weather data. The highly variable landscapes and microclimates of the Central Coast limit the accuracy of using data from fixed weather stations to describe conditions elsewhere in the region. This presents a limitation to the use of practices such as climate-based irrigation scheduling, in which irrigation amounts are calculated based on the evapotranspiration conditions.

The CA Dept. of Water Resources is now utilizing a model called 'Spatial CIMIS' to estimate the evapotranspiration conditions throughout the state, based on data from fixed weather stations and satellite imagery. How accurate these estimates are for specific regions on the Central Coast needs to be evaluated to determine the accuracy and utility of this potentially valuable data resource for local farm managers. Farm Advisor Mark Battany has been conducting comparisons of the reference evapotranspiration conditions predicted by this model against measurements of reference evapotranspiration estimated by using water-filled evaporation gauges.

This work began in 2011 in vineyards throughout Santa Barbara County and is currently underway in vineyards in San Luis Obispo County. Up to 18 individual sites are monitored throughout the summer irrigation season with individual evaporation gauges at each site. Each gauge has an automated recording device to track the daily amounts of evaporation that occur, and these daily amounts are compared to the values predicted by the Spatial CIMIS model. Better understanding of the Spatial CIMIS data will enable growers to utilize this potentially valuable resource.



This water-filled gauge (ETgauge model E) automatically records evaporation rates throughout the day in this vineyard setting. This measurement is an estimate of the reference evapotranspiration for the site, which is then compared to the output of the Spatial CIMIS model for the same days and locations.

Public Value

The University of California Viticulture/ Soils program in Santa Barbara County is focused on developing and extending critical research-based information to help wine grape growers maintain sustainable production. This effort benefits Santa Barbara County through:

- Achieving sustainable wine grape vineyards that enhance productivity, crop quality and economic returns to growers with benefits to the entire local economy
- Vineyard irrigation and soil management practices that help reduce water use and maintain soil productivity, thus relieving the strain on impacted water resources and ensuring more reliable supplies for all water users
- Improved understanding of frost conditions and protective measures to help achieve effective practices that minimize impact on water resources

Strawberries and Vegetables

Advisor Surendra Dara

The Challenge

Public health and environmental resources are protected through efficient use of agricultural inputs and safe agricultural practices. Strawberry and vegetable growers and pest control advisors are continually in need of information on improved production technologies and strategies for managing endemic and invasive pests, diseases, and weeds. Optimizing inputs and maximizing returns with food safety in mind are key strategies for healthy, safe, and prosperous agricultural operations.

The Strawberry and Vegetable program identifies growers' needs, develops solutions based on sound scientific research, and extends information in a timely and proactive manner.



Strawberry Field Day- May 07, 2014

Addressing the Challenge

Research and outreach efforts address major concerns of the strawberry and vegetable growers and also promote sustainable management practices for a safe environment.

- Organized a strawberry field day where 100% of the feedback indicated that information was excellent or very good and 100% indicated that they would use the information.
- Communicated with and provided feedback to Ag Commissioner's pathologist and entomologist about multiple pest and disease issues.
- Interviewed by three web portals and a print magazine about Bagrada bug, pests of leafy greens, and a beneficial fungus.
- Developed 12 extension publications, available to Santa Barbara County growers, about new and existing pests and their management.
- Three studies in vegetables, two studies in strawberries, and one study in blackberries were conducted to improve integrated pest management practices for weeds and insect pests.
- Three studies to enhance plant growth and health, two studies to improve irrigation and nutrient management were also initiated.
- Continues to provide timely information on production practices, pest, disease, and weed management to the clients and reached out to 258 people through direct contact and 198 people through meetings held during this period.

Public Value

The UCCE strawberry and vegetable program promotes a prosperous local economy, as well as a safe and healthy food system through:

- Improved production practices by optimizing input costs and increasing yields
- Innovative research on alternatives to chemical fumigants, insecticides, miticides, fungicides, and improved Integrated Pest Management practices
- Efficient use of fertilizers and irrigation water which contribute to reduced leaching of nitrates, reduced ground water contamination, and water conservation
- Education on invasive pests and diseases that impact both the farming community and home gardeners better equips them to take appropriate preventive and/or control measures.

Small Farms and Specialty Crops

Advisor Mark Gaskell

The Challenge

Small-scale fruit and vegetable growers rely on relatively higher value, lower volume specialty crops to remain economically competitive. UCCE field trials and educational programs are focused on developing new crop alternatives and alternative cultural practices to make small-scale agriculture more viable and competitive in Santa Barbara County.

Field trials are conducted – often on the farms of cooperating growers and the results of those trials, associated greenhouse or laboratory studies, and the experiences of other specialists are then assembled into educational outreach programs to educate and guide growers and industry representatives on the best current science-based information.

Addressing the Challenge

Acreage of organic fruit and vegetable production continue to expand in California and nationwide in response to growing public demand for organic produce. New and established growers need research-based information to guide them for efficient management of organic strawberry and other long season organic fruit production. Data from field trials conducted during 2013 showed that there was little difference in strawberry production between different rates of applied organic nitrogen fertilization. Field trials during the prior two reporting periods compared two types of liquid organic fertilizers and followed the fate of nitrogen applied as organic fertilizer through routine filtering and then sampled at various points along the irrigation stream. Samples collected for the first 20 weeks of irrigation during a typical strawberry production season have now been analyzed by the UC Davis Analytical Lab. These results are now being summarized, but preliminary results clearly show markedly lower amounts of organic N deposited from emitters than the amounts intended from organic fertigation.

Multiple projects currently underway with blueberries, blackberries, and coffee assist growers to more efficiently and profitably produce these crops in Santa Barbara County and along the southern California coast.

Field trials during the reporting period include:

- Blackberry varieties, mowing, and pruning practices for the most profitable production season.
- Blueberry varieties that extend the market season or produce during the most profitable part of the market season.
- Cultural practices for successful coffee production and evaluation of cropping systems to interplant coffee in established avocado orchards.



Coffee cherry harvest from one of the 12 coffee varieties being evaluated at Goodland Organics Farm, Goleta, CA. June 2014.

Public Value

Small-scale agricultural producers need reliable and current information on the most promising crop alternatives and the most efficient cultural practices if they are to remain economically viable. Recent research and educational outreach programs have included:

- Development of alternative small fruit – berry crop varieties and cultural practices contributing to establishment of blueberries, blackberries, and raspberries as profitable new crops in Santa Barbara County.
- Development of new information and practices to guide organic strawberry and other long season organic fruit growers for efficient management of nitrogen and water.
- Providing the research and educational base for establishment of coffee and tea as new crops in Santa Barbara County.

Soil/Water/Subtropicals

Advisor Ben Faber

The Challenge

Santa Barbara County's agricultural competitiveness depends on adopting new scientific and technological innovations derived from new knowledge in agriculture. Research and educational efforts must enhance the opportunities for markets and new products. Creating a sustainable local agricultural economy also depends upon improving water quality, quantity, and security; managing pests and diseases; and improving cultural management practices for subtropical producers.

The Soils/Water/Subtropicals Program in Santa Barbara County has a 60 year history of local research and extension that optimizes crop production, maximizes net farm income, conserves natural resources and protects the environment.

Addressing the Challenge

Ben Faber continues his extension work with Santa Barbara County subtropical fruit growers, providing evidence based information via phone and email regarding production issues, with more than 40 contacts during this quarter.

Ben also coordinated and/or authored 2 articles for the Topics in Subtropics blog (<http://ucanr.edu/blogs/Topics/>) with current information for growers of subtropical crops. This readily accessed information on crop production had 13,184 direct hits during this report period. Although this information is not specific to Santa Barbara County, it is information that is readily accessible and useful to Santa Barbara producers and is used by local growers. Typical viewership is 300 per day.

The California Cherimoya Association's annual meeting was held April 13th at the UC Hansen Agricultural Center in Ventura, with 103 people in attendance. Santa Barbara County grows half of all cherimoyas produced in the United States, so this was an important regional effort for this industry.

- Applied research that will benefit subtropical producers in Santa Barbara County includes projects examining the following:
 - Performance of 'Hass' avocado on 6 different rootstocks
 - Water requirements of raspberries grown in tunnels
 - Ongoing projects with local grower cooperators, including
 - Girdling effect on lemon production
 - Lemon rootstock effect on lemon production
 - Strawberry establishment with reduced water applications
 - Pitahaya variety evaluation and cultural practices



Santa Barbara grows half of all cherimoyas produced in the United States.

Public Value

Healthy people and communities, healthy food systems, and healthy environments are strengthened by a close partnership between the University of California and its research and extension programs and the people of Santa Barbara County.

- The Soils/Water/Subtropical Program provides innovation in applied research and education that supports:
 - Sustainable, safe, nutritious food production through the delivery of information on soil and water management
 - Economic success in a global economy through production of high quality fruit
 - A sustainable, healthy, productive environment through improved water and nutrient management
 - Science literacy within the agricultural community promoted by rapid access to evidence based information

Fire Ecology & Management

Specialist Dr. Max A. Moritz

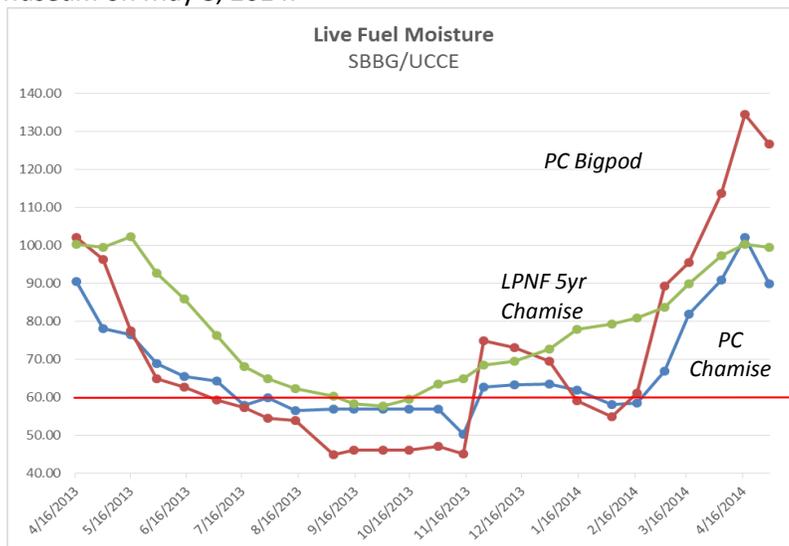
The Challenge

Understanding the nature of fire in California can help to save lives, minimize property damage, and protect the environment. Focusing broadly on fire ecology and management, this program brings UC research expertise to Santa Barbara County on the following topics:

- Quantifying the natural ranges of variation in fire regimes (including frequency, size, seasonality and intensity) within fire-adapted vegetation.
- Understanding where and when various fuel management techniques are likely to succeed and be sustainable.
- Mapping fire weather patterns, which historically have been associated with the greatest losses.
- Modeling linkages between fire activity and climate change.

Addressing the Challenge

During this quarter Specialist Max Moritz recruited and began training of a new intern to help with Live Fuel Moisture (LFM) data sampling and processing and provided an invited presentation at the Santa Barbara County Fire Chief's Wildfire Season 2014 Briefing at the Natural History Museum on May 8, 2014.



The above LFM plot shows results for a site near Painted Cave Road. Species sampled include chamise (*Andenostoma fasciculatum*), the most common plant used for LFM monitoring, and bigpod ceanothus (*Ceanothus megacarpus*), the most common plant growing on the front-range above Santa Barbara. Bigpod LFM is much more sensitive to local environmental fluctuations and water stress. The plot also shows the 5yr mean trend for chamise from the Los Padres National Forest (LPNF) sampling site near the top of San Marcos Pass; the 60% "critical" level recognized by agency personnel. Note that the current levels, at least for chamise, are already back down to approximately 60%.



The fire history image shows all fires in the CalFire fire perimeter database since 1950. Areas in brighter red depict multiple burnings. Note that the fire patterns largely follow the boundaries of LPNF and are restricted to chaparral. There is much less fire activity in this region than in areas to the south, which experience many more ignitions and are exposed to Santa Ana winds.

Public Value

Fire is an important and natural process in almost every terrestrial ecosystem of California, yet it is one of the most persistent threats facing communities that live on fire-prone landscapes.

Communicating and implementing the latest scientific information about fire research is crucial for making communities safer, reducing property damage, saving lives, and protecting the environment.

UC Cooperative Extension helps Santa Barbara County create safer, healthier and more prosperous communities through efforts that emphasize the following:

- Education of homeowners about fire danger and preparedness steps.
- Communication with fire managers, policy makers, and planners about long-term fire-related decision making.

UC CalFresh Nutrition Education Program

Advisor Dr. Katherine E. Soule and Program Representatives Lisa Paniagua and CR Taylor-Burns

The Challenge

In 2009, the Santa Barbara County Department of Public Health reported that approximately 1/2 of adults and 1/3 of teens in the county are overweight or obese. Obesity is a contributing factor of disease and death. Rates of obesity are generally higher among low-income populations.

To improve the health of the public, the University of California CalFresh Nutrition Education Program (UC CalFresh NEP) provides high-quality, nutrition and physical activity education programs for youth and adults in Santa Barbara County, focusing on low-income populations.

Addressing the Challenge

From April through June 2014, 129 UC CalFresh Nutrition Education educator extenders each taught their students an average of 13 hours of nutrition education between April and June. Additionally

- Staff conducted 126 classroom visits, exposing over 3,780 students to healthy fruit, vegetable and dairy recipes.
- Fifteen adults participated in a 4-class series at Bonita Elementary school over a 2 week period, learning the importance of nutrition education, healthy recipes, portion size, and physical activity.
- Each month staff in collaboration with THRIVE! Santa Maria assisted the food bank community advocate volunteers in preparing and presenting a healthy recipe from fresh ingredients in their Healthy School Pantry food bag, reaching approximately 250 family members per month.
- Staff presented an interactive nutrition booth at the Santa Barbara County Fair and Expo at the UC Small Farms Exhibit. During the celebratory days for children, seniors and Latinos nutrition and physical activity information was extended to over a 125 fair-goers.
- On May 8, 2014 staff celebrated 100 years of UCCE Science and Service with 34 Santa Maria Bonita School District educators and reached over 1,000 students. The students participated in counting pollinators, discussing water conservation and where our food comes from within their school gardens.
- UC CalFresh Staff presented a culturally relevant healthy recipe food tasting at Evans Park Housing Authority in collaboration with Santa Barbara County Food Bank. UC CalFresh staff worked collaboratively with Santa Barbara County Public Health Nutrition Program staff to provide support and education for the local community.



UC CalFresh Community Educator Melissa LaFreniere asks students questions about MyPlate as they spin the MyPlate wheel at the Santa Barbara County Fair and Expo UC ANR Small Farms Exhibit.

Public Value

The UC CalFresh NEP in Santa Barbara County is focused on improving the health of the public, which in turn reduces public costs, by providing research-based quality nutrition education. These efforts include:

- Serving as a vital bridge between the learning and knowledge of the UC system and our community.
- Promoting healthy living, food safety, food budget maximization, and physical activity to CalFresh recipients and other low-income individuals, families, and youth.
- Tailoring the latest science, curriculum and information to the needs, culture and language of low-income communities to provide culturally sensitive programming that meets nutrition education and resource needs in Santa Barbara County.
- Enhancing individual efforts to make healthier lifestyle choices by utilizing the Socio-Ecological Model (SEM) to encourage social and environmental (e.g. home, school) changes.

Master Gardeners

Advisor Mary Bianchi and Program Representative Fiona Brennan

The Challenge

Communities beyond the reach of the land grant campuses of the University of California present special challenges for outreach and extension of research in new horticulture practices to home gardeners.

Research based information about home horticulture, pest management; sustainable landscape practices and other environmental and natural resource issues support informed decisions by home gardeners promoting healthy, safe and prosperous communities in Santa Barbara County

Local Master Gardener volunteers, trained by the University of California, provide information and problem solving opportunities.



Master Gardener presenting drought tolerant plants. Photo courtesy of Steven Lewis.

Addressing the Challenge

Master Gardeners delivered three public workshops in the month of May for National Public Gardens Appreciation Month in collaboration with Santa Barbara Parks & Recreation that reached 155 community members:

- **Butterflies in your Garden** workshop covered the following topics: the lifecycle of butterflies, how to attract butterflies to your garden, how to raise butterflies and the benefits of butterflies in your garden
- **Water in Your Garden-Friend or Foe?** The workshop covered useful tips on irrigation, monitoring plants and soil for water needs and optimal water management in your garden.
- **Beautiful Garden Design for Drought** presented an array of top water-wise plant choices for your garden and how to create a beautiful garden design using these plants and others.

Bilingual Master Gardener volunteers demonstrated growing food for home gardens for the Santa Barbara Food Bank – “Grow Your Own Way” project, reaching 92 largely Spanish-speaking community members

Information tables staffed by Master Gardeners at Earth Day, the SB Botanic Garden Native Garden tour and downtown Santa Barbara Farmers’ Market reached 557 home gardeners by answering questions on the Asian Citrus Psyllid, converting lawns to drought tolerant gardens and drought tolerant plants. Through our volunteer work at Alice Keck Park Memorial Gardens and Huerta Garden at the Mission, Master Gardeners reached 80 community members and helped raise awareness about butterfly gardens and sustainable methods of planting, care, and soil management in collaboration with other community organizations.

Master Gardeners volunteered 1,066 hours to community education on sustainable gardening, representing \$23,614 in educational activity on water conservation and integrated pest management.

Public Value

The University of California Master Gardener Program in Santa Barbara County is focused on promoting extending research based information on sustainable landscape practices. This effort benefits Santa Barbara County through:

- Safe gardening practices that help to protect water and water quality, support healthy ecosystems and enhance wildlife and biodiversity.
- Sustainable local food systems that enhance food security for families, neighborhoods, and communities.
- Sustainable landscape practices that create efficient communities by conserving water and energy, and reducing and reusing green waste.
- Effective prevention, detection and management of invasive and endemic species through public outreach and education that helps to preserve a prosperous agricultural economy.
- Increasing science literacy of Master Gardeners and their clientele through quality education and outreach.

4-H Youth Development Program

Advisor Dr. Katherine E. Soule and Program Representatives Sherry Mills and Andrea Borunda

The Challenge

Communities of scientifically literate, well-informed, and actively engaged citizens are essential to create positive changes needed to solve important issues facing our nation and help us to prosper in a global economy.

The University of California 4-H Youth Development Program provides training and resources to local volunteers who partner with youth to bring about positive change in our communities. The 4-H program equips youth with hands-on science activities, healthy living knowledge, leadership experiences, and service-learning opportunities. Participation in 4-H prepares youth to understand and acquire the skills that will allow them to become problem-solvers and astute leaders.

Addressing the Challenge

At the end of this quarter, 788 youth members were enrolled in 4-H Community Clubs. 266 youth participated in 4-H Military Club projects at Vandenberg Air Force Base. The number of individuals who participated in special programs, including 4-H Agua Pura watershed education, hands-on science, Santa Maria-Bonita Healthy School Food Pantry, and other community and school events totaled 4415. Some highlights included:

- Presentation of the 4-H Agua Pura watershed education model to over 250 students & families at the Vieja Valley School Science Night in Santa Barbara on April 10, 2014.
- The 4-H Agua Pura watershed education model was presented to over 1,076 students, parents, and teachers from 18 schools at the Fair & Expo.
- 4-H Extravaganza was held at the Town Center Mall in Santa Maria in April and provided a wonderful opportunity for 4-H'ers to outreach to the community.
- At County 4-H Exhibit Day, 251 youth members came together to show large animal, small animal, and still exhibits and compete for the title of County Winner in each division.
- Fifteen Santa Barbara County 4-H youth members and their families traveled to UC Davis to participate in the annual California State 4-H Field Day and California State 4-H Presentation Day in May.
- 4-H Member Record Book Judging was held in Lompoc on June 21, 2014. Eight clubs participated by entering a total of 84 gold seal Record Books.
- 4-H staff and volunteers presented hands-on educational or recreational activities to 500 – 700 visitors to the monthly Santa Maria-Bonita Healthy School Food Pantry.



Santa Barbara County 4-H youth members participating in the Goat Showmanship class during the Santa Barbara County 4-H Exhibit Day event held at the Santa Maria Fairgrounds on May 17, 2014.

Public Value

In Santa Barbara County, the University of California 4-H Youth Development Program is focused on providing youth with opportunities to develop strong, positive youth-adult partnerships while engaging in meaningful activities, which lead to:

- Reduced participation in risky behaviors (e.g. underage drinking, pregnancy, gang activity), which can decrease related public costs.
- Increased academic success and/or science literacy, which contributes to a highly qualified and productive workforce.
- Increased civic engagement, which can strengthen communities through youth training in leadership skills, innovation, critical thinking, and healthy living.
- Increased youth literacy in science, engineering, and technology through special programming, projects, and access to University curricula.
- Increased environmental stewardship and agricultural knowledge, which ensures a safe, sustainable, and secure food supply.