

Santa Barbara County UC Cooperative Extension Programs Progress Report April - June 2013



Temperature Profile Tower: Mark Battany, Viticulture and Soils Advisor, developed this instrument to measure air temperature at various heights to accurately quantify the potential risks and benefits associated with different vine training heights.

ADMINISTRATION

Note: This progress report covers the period from April 2013 – June 2013.

County Director Richard Enfield kept in contact with SB Agricultural Commissioner Cathy Fisher throughout the quarter. Richard Enfield worked closely with UCCE academics and staff to provide input to Cathy Fisher and to the Santa Barbara County Board of Supervisors that supported decisions regarding continuation of funding for UCCE activities in Santa Barbara County.

Rose Aigner provided administrative/clerical support to to the 4-H and Master Gardener programs in Santa Barbara County.

A representative from UCCE attended all the Agricultural Advisory Committee and Farm Bureau meetings during the quarter.

Rangeland and Watershed Advisor Dr. Royce Larsen serves on the Santa Barbara Agricultural Preserve Committee and he attended all the meetings during the quarter.

NOTABLE HIGHLIGHTS FROM THE REPORT

Mark Battany (Viticulture & Soils Advisor)

Mark continued with his temperature inversion measurements through the spring of 2013. When completed next year, this study will provide the most comprehensive information available for growers to determine whether or not wind machines will provide adequate frost protection in their respective growing areas. Mark also continued to collect temperature profile measurements at three sites in Santa Barbara County, after beginning the measurements in winter 2012. He plans to develop the most comprehensive understanding to date of how air temperature varies with height above the ground throughout the growing season in the Central Coast region.

Surendra Dara (Strawberry and Vegetable Crops Advisor)

Surendra completed three field studies and initiated a fourth study to address various pest and disease issues in strawberries. Additional greenhouse experiments evaluated a biopesticide for managing strawberry pests using aphids as a model insect. Surendra collaborated with the Agricultural Commissioner's office in testing management options for whiteflies. Whiteflies have emerged as a vector of disease in strawberries, and Surendra worked proactively with the Santa Barbara County strawberry industry to address and inform them about this potential threat and disease management options. He was very active with his outreach and gave eight presentations reaching out to 400 people from the strawberry and vegetable industries.

Mark Gaskell (Small Farms & Specialty Crops Advisor)

As part of a three-year project, Mark is conducting field trials on organic strawberry management with collaborating growers in the Santa Maria Valley. These trials examine the factors limiting efficient organic fertilization practices with emphasis on fertigation and application of certified organic fertilizers through drip irrigation systems. Mark is also evaluating pruning techniques for new primocane fruiting blackberry varieties under high plastic

tunnels, evaluating different mow-down and tip pruning regimes. These trials are underway with a collaborating grower in the Los Alamos Valley in Santa Barbara County. Coffee trials continue in southern Santa Barbara County near Goleta and Carpinteria. Commercial coffee plantings and variety trials have now been established on three farms in the area. New plantings of coffee have been successfully established in avocado orchards, planting coffee between avocado trees. Intercropping coffee with avocados offers promise as a way to improve farm income and diversify the farming enterprise while improving water and nutrient use efficiency.

Dr. Max Moritz (Wildfire U.C. Cooperative Extension Specialist)

During this quarter Specialist Max Moritz continued to develop his fire research and outreach program. This included ongoing attendance and communication with the Santa Barbara Fire Safe Council, and election to the Board of Directors in June. In a continuing collaboration with the Santa Barbara Botanic Garden, Max successfully trained volunteers to contribute to the live fuel moisture sampling program at two new sites in Santa Barbara County.

Ben Faber - Soils and Water, Avocados and Minor Subtropicals Advisor

Ben spear-headed the development and delivery of a Topics in Subtropics blog (<http://ucanr.edu/blogs/Topics/>) with current information for growers of subtropical crops. Ben met with the Ag Advisory Committee in May, reporting on research related to Polyphagous Shot Hole Borer, a new pest of avocados with an additional host range of 207 species of plants in 58 plant families. Ben also informed the Advisory Council of the retirement of Julie Newman, UCCE Environmental Horticulture Advisor in Ventura and Santa Barbara Counties.

4-H

Richard Enfield retired on June 27, 2013 serving as County Director and 4-H Advisor for 33 years. Dr. Katherine E. Soule joined UC Cooperative Extension as the Youth, Families, and Communities Advisor for San Luis Obispo and Santa Barbara Counties on June 25, 2013. Katherine places great value on diversity and is committed to developing and delivering inclusive 4-H programming.

Expressive Arts Key Leader Kathy Thompson created and coordinated a brand-new event, *4-H Extravaganza*, which included 4-H club and project booths, a fashion revue, and a project skills competition. A 7-week County-wide 4-H Chemistry Project took place April 9 – May 21, 2013. Many 4-H adult volunteers and youth members participated in Santa Barbara Fair & Expo at the Earl Warren Showground on April 24 – 28, 2013. Eight 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 on May 25, 2013.

UCCE Master Gardeners in Santa Barbara County

Master Gardeners were actively involved in National Public Gardens Day and presented three of the 10 garden talks held in Santa Barbara. Master Gardeners held their second annual plant sale and lecture series and three public workshops at the Louise Lowry Davis Center: *Edible Landscapes*, *Fabulous Herbs for Flavorful Food and Composting Simply Done*, and *Backyard Beekeeping & the Amazing Honey Bee*. In conjunction with National Public Gardens month, Master Gardeners participated with local public and private agencies and acted as van captains for the Garden Lovers Tour of three gardens: Lotusland, Casa del Herrero, Alice Keck Park Memorial Garden. Master Gardeners continue their monthly collaboration with the Santa

Barbara FoodBank “Grow Your Own Way.” The project distributes seeds and educational instruction and promotes gardening for home food production.

UC Cal Fresh

In Santa Barbara County approximately 38,000 public school students qualify for free and reduced school meals. More than 12,000 students (32%), attend school in the Santa Maria Bonita School District (SMBSD) located in Northern Santa Barbara. The cornerstone of our youth program is our unique No Prep Nutrition Education Kits which allow educators to implement quality nutrition education in their classrooms with no preparation or cost. Between April and June of 2013, 135 educators in SMBSD committed classroom time to nutrition education providing comprehensive nutrition lessons to more than 4500 SMBSD students. On average 35-50 family members received a nutrition and food demonstration, healthy recipe and nutrition tips newsletter each month. UC CalFresh Nutrition Education Program in collaboration with Santa Maria Thrive! provided family centered nutrition education from April through June to an average of 600 family members each month.

PLANT SCIENCES/HORTICULTURE

**Advisors Dr. Surendra Dara Dr. Ben Faber, Mark Battany,
Mary Bianchi, Dr. Mark Gaskell, and Julie Newman**

This program 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, implement improvements in cultural practices and pest control methods, and offer information that optimizes production, conserves natural resources, and protects the environment.

SURENDRA DARA - STRAWBERRY AND VEGETABLE CROPS & AFFILIATED IPM ADVISOR

Whiteflies emerged as an important pest and vector of a disease in strawberries. Surendra proactively worked on this issue and provided timely information to the local strawberry industry about the pest, its potential threat as a disease vector, and management options. He collaborated with the Ag Commissioner’s Office in verifying disease presence and in developing outreach efforts.

Surendra completed three field studies and initiated a fourth study to address various pest and disease issues in strawberries. He also completed two field studies to address strawberry plant health and nutrition management. He has initiated another similar study with jalapenos. Additional greenhouse experiments were conducted to evaluate a biopesticide for managing strawberry pests using aphids as a model insect. Surendra collaborated on a field trial evaluating alternatives to chemical fumigants

Surendra was very active with his outreach and gave eight presentations reaching out to 400 people from the strawberry and vegetable industries. He organized a well-attended strawberry field day in Santa Maria. He authored four handouts, two blog articles, and one popular magazine article during this quarter. Two of his articles were republished in Western Farm Press. He worked on updating UCCE pest management guidelines.

Through his meetings, field visits, phone calls, and other means of communication, Surendra contacted 1625 people. During this period, he provided three television interviews regarding his field work.

BEN FABER - SOILS AND WATER, AVOCADOS AND MINOR SUBTROPICALS ADVISOR

Ben Faber continued his work with Santa Barbara County subtropical fruit growers, providing evidence based information via phone and email regarding production issues. Ben has also spear-headed the development and delivery of a 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 6847 direct hits during this report period, demonstrating the value of science-based information for clientele of UC programs. Although no ability to collect access data specifically for Santa Barbara County exists, this information is readily accessible for local producers.

Ben met with the Ag Advisory Committee in May, reporting on research related to Polyphagous Shot Hole Borer, a new pest of avocados with an additional host range of 207 species of plants in 58 plant families. This insect is an invasive ambrosia beetle that forms a symbiosis with a Fusarium fungus, causing dieback on host plants in California. Ben also informed the Advisory Council of the retirement of Julie Newman, UCCE Environmental Horticulture Advisor in Ventura and Santa Barbara Counties.

MARK BATTANY - VITICULTURE & SOILS ADVISOR

Springtime temperature inversion assessment

Mark continued with his temperature inversion measurements through the spring of 2013, completing the spring frost season measurements in mid-June. With these 2013 measurements at 20 sites in Santa Barbara County he finished the second year of his planned three-year study throughout Santa Barbara, San Luis Obispo and Sonoma Counties. When completed next year, this study will provide the most comprehensive information available for growers to determine whether or not wind machines will provide adequate frost protection in their respective growing areas. Such information will become increasingly important as the water supplies for sprinkler frost protection become less abundant over time, as is now happening in many parts of California. A poster describing the early results of this project was presented at the 2013 American Society for Enology and Viticulture Conference in Monterey. This project is made possible with funding from the CDFR Specialty Crops Block Grant program.

Vine training height and the air temperature microclimate

Mark also continued 2013 temperature profile measurements at three sites in Santa Barbara County, after beginning the measurements last winter. Together with the measurements at four similar sites in San Luis Obispo County, he plans to develop the most comprehensive understanding to date of how air temperature varies with height above the ground throughout the growing season in the Central Coast region. This information is critical for helping growers determine the optimum height of vineyard trellising in this region, and in particular can help growers avoid poor trellising decisions. Unwise choices of vine training height can subject the

vineyard to increased frost risk in the spring and summer, as well as more risk of heat damage in the summer. This project seeks to accurately quantify the potential temperature risks associated with different vine training heights. To carry out this assessment he is measuring temperatures very precisely at one-foot height increments from one to eight feet above the ground at locations representative of the different growing areas in each county. This project received funding support from the American Vineyard Foundation to carry out the assessment through 2013 and into the spring of 2014.

MARK GASKELL - SMALL FARMS and SPECIALTY CROPS ADVISOR

UC Small Farms and Specialty Crops Farm Advisor Mark Gaskell is a collaborator on a research and education project with organic strawberry production directing funding from the USDA National Organic Research program to support Santa Barbara County agriculture. The project entitled “A Collaborative Research and Extension Network for Sustainable Organic Production Systems in Coastal California” supports Mark and a team of advisors and other UC faculty from Salinas, Santa Cruz, Watsonville, and UC Davis in creating a research / extension network.

As part of this three-year project, Mark is conducting field trials on organic strawberry management with collaborating growers in the Santa Maria Valley. These trials are examining the production and management factors that might limit efficient organic fertilization practices for strawberries. The project emphasizes fertigation and application of certified organic fertilizers through drip irrigation systems.

Varying rates of organic fertilizer were applied to strawberries at two organic farms in the Santa Maria Valley beginning in late 2012, and weekly fertilizer treatment treatments were continued during the first 5 months of 2013. Data collection began in February 2013 with weekly soil sampling and measurement of soil nitrogen. Yield data collection began in March 2013 and continued until early June. That data is now being analyzed and will be summarized during mid to late summer 2013 and initial results presented at grower meetings during 2013 and 2014.

Additional new organic fertigation trials are also being established on a site provided by a Santa Maria strawberry grower to evaluate different alternative fertilizer injection scenarios. These trials will evaluate changes in irrigation distribution uniformity and the amount of nitrogen released by emitter tape over different irrigation regimes. These trials will continue in 2013 and 2014. Additional trials are also evaluating the application of biochar and its effect on long-term improvement in soil organic matter on the sandy soils commonly used for strawberries in the Santa Maria Valley.

Mark has pruning management trials underway with a collaborating grower in the Los Alamos Valley. These trials are evaluating different mow-down and tip pruning regimes for new primocane fruiting blackberry varieties under high plastic tunnels. Results from these trails will be compared with open field blackberry trials near Santa Maria. Different treatment regimes have been applied during this reporting period and will continue into mid 2013. Initial harvests began in June 2013 and are continuing. Data is being collected on timing of production, and marketable fruit yield and size from the different mow down treatments.

Coffee trials continue in southern Santa Barbara County near Goleta and Carpinteria. Commercial coffee plantings and variety trials have now been established on three farms in the area. Additional coffee varieties were planted at Condor Ridge Ranch near Goleta during the reporting period. New coffee variety trials are being planned on additional farms in the Santa Barbara area. Plantings of coffee have been successfully established in avocado orchards, planting coffee between avocado trees. Intercropping coffee with avocados appears to offer promise as a way to improve farm income and diversify the farming enterprise while improving on water and nutrient use efficiency. A new planting will also be established in a Morro Bay avocado orchard to determine if coffee will ripen normally this far north and produce acceptable coffee quality. The Morro Bay plantings are planned for July 2013 and if successful will be processed and marketed by Goodland Organics at Condor Ridge Ranch in Goleta.

FIRE ECOLOGY AND MANAGEMENT **UCCE Specialist Dr. Max Moritz**

This program is 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.

During this quarter Specialist Max Moritz continued to develop his fire research and outreach program based out of the Santa Barbara County Cooperative Extension office in Goleta. This included ongoing attendance and communication with the Santa Barbara Fire Safe Council. Max was elected to the Council Board of Directors in June. He also attended the Santa Barbara County Farm Bureau meeting on May 7 and provided an update on his fire programs.

In a continuing collaboration with the Santa Barbara Botanic Garden, Max successfully trained volunteers to contribute to the live fuel moisture sampling program at the two new sites in Santa Barbara County. After a few more data points in the time series have been collected and reviewed, these data will be made available to the general public and to the Southern California Geographic Area Coordination Center (a multi-agency collaborative group for coordinating wild land fire resources) for inclusion into their regular fuels discussion updates. Results will also be uploaded to the National Fuel Moisture Database, expanding the coverage significantly for Santa Barbara County.

**UC CALFRESH NUTRITION EDUCATION PROGRAM (UC CalFresh NEP)
Advisor Richard Enfield, Program Representative III Kimberlee Hampton, Program
Representative II Lisa Paniagua & Program Representative I Andrea Keisler**

The University of California's CalFresh Nutrition Education Program (UC CalFresh NEP) is funded by the USDA and delivered by the University of California Cooperative Extension to San Luis Obispo and Santa Barbara Counties. In collaboration with local partners, UC CalFresh provides evidenced-based nutrition education to CalFresh recipients and other low-income individuals and families. It acts as a vital bridge with the community by tailoring the latest science, curriculum, and nutrition information to the needs of low-income families.

The program also provides educators at qualifying schools with research-based nutrition education curriculum and high-quality nutrition education training utilizing the USDA MyPlate as a guidance tool. Recognizing that healthy eaters are better learners, the goal is to help these community members make better nutrition decisions by focusing on increasing vegetable and fruit consumption, choosing low-fat/low-sodium foods, and balancing caloric intake by an awareness of portion size.

In Santa Barbara County approximately 38,000 public school students qualify for free and reduced school meals. More than 12,000 students (32%), attend school in the Santa Maria Bonita School District (SMBSD) located in Northern Santa Barbara. These students and their families are the target audience for UC CalFresh Nutrition Education Program.

UC Cal Fresh and Santa Maria Bonita School District

In Santa Barbara County, 53.3% of adults are overweight or obese, 39.5% of adults live in food insecure households, 14% of children are living in poverty, 11.2% of children are overweight for age, and 27,194 students qualify for free and reduced meals

UC CalFresh NEP's Santa Barbara programming efforts are concentrated in the Santa Maria Bonita School District (SMBSD) in Santa Maria. Currently, 135 educators representing 12 of the district's schools are enrolled in the program. SMBSD and UC CalFresh has a memorandum of understanding through 2014 and is looking forward to continuing to participate in a collaborative partnership with UC acting as a member of SMBSD's professional learning community. UC Cal Fresh NEP in collaboration with Santa Maria Thrive! provided family centered nutrition education from April through June to an average of 600 family members each month. In addition to district support, administrative support is evident at each school site in SMBSD.

UC CalFresh NEP provides interested educators with free research-based, age-appropriate nutrition curricula that are tied to both California's health content standards and core content standards. The cornerstone of our youth program is our unique No Prep Nutrition Education Kits which allow educators to implement quality nutrition education in their classrooms with no preparation or cost. Between April and June of 2013, 135 educators in SMBSD committed classroom time to nutrition education providing comprehensive nutrition lessons to more than 4500 SMBSD students. On average, educators enrolled in UC CalFresh NEP extend an average of 13 hours of nutrition education per school year to their students.

UC CalFresh NEP in collaboration with the Santa Barbara County Food Bank offers monthly Adult nutrition workshops at Evans Park Housing Authority. On average 35-50 family members received a nutrition and food demonstration, healthy recipe and nutrition tips newsletter each month.

MASTER GARDENERS

Advisor Mary Bianchi & Program Representative II Fiona Brennan

UCCE Master Gardeners (MGs), through their volunteer activities, 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. They interact directly with homeowners and back yard gardeners to provide information on plant selection, alternatives to pesticides, water conservation, and environmentally sound solutions for pest problems.

MG Program goals are to support healthy people and communities, healthy food systems, and healthy environments in Santa Barbara County through the extension of research-based knowledge and information on home horticulture, pest management, and sustainable landscape practices.

There are 56 Master Gardeners in the Santa Barbara County Program as of June, 2013.

Master Gardeners held their second annual Plant Sale and Lecture Series. Plants, seeds, new and used books and garden items were available for sale. During the sale Master Gardeners presented mini-lectures on the following topics: Beekeeping, Fabulous Herbs, Growing Raspberries Locally, Butterfly Gardens, and Composting. Each lecture was approximately 20-30 minutes followed by a Q&A Session. A help table was available during the entire sale to answer any questions related to the plants for sale or general backyard gardening questions.

Summary of Accomplishments:

Important outreach and education activities for the Master Gardener Program in Santa Barbara County from April 1, 2013 through June 30, 2013 resulted in 1,092 educational contacts through the following volunteer events:

- Master Gardeners volunteered 1,143 hours of community education on sustainable gardening. Using the estimate of \$22.14 for volunteer hours (http://www.independentsector.org/volunteer_time), this represents \$25,306 in support of education that includes water conservation, Integrated Pest Management, composting, and reduced urban pesticide use.
- Master Gardeners provided information and resources on sustainable landscape practices through a telephone helpline for a total of 36 hours.
- For the month of May, Master Gardeners were actively involved in National Public Gardens Day and presented three of the 10 garden talks held in Santa Barbara. The event was sponsored nationally by American Public Gardens Association (APGA) and Rain Bird. The three public workshops were held at the Louise Lowry Davis Center.

The Santa Barbara Parks & Recreation department assisted in coordination of these workshops.

The first workshop, *Edible Landscapes*, was presented by Master Gardeners Diane Galvan, Laurel Lyle, and Karen McConaghy, graduates of the Statewide Master Gardener Edible Landscape Train the Trainer program. The workshop described how to transform your landscape into one which is sustainable and provides you with fresh, healthy produce, herbs, and fruit year-round. They provided guidelines for a good edible landscape plan/design, discussed planting, maintenance, harvesting and storing your edible produce safely.

The second workshop covered two topics: *Fabulous Herbs for Flavorful Food and Composting Simply Done*, presented by Katy Renner and Steve Lewis, respectively. Katy presented an informative talk on preparing and selecting plants for your herb garden, some unusual herbs to consider, and tips for growing, harvesting, cooking and baking your herbs. Steve described easy to understand steps on preparing your compost, incorporating your compost into garden bed preparation, and composting tips for culinary herb gardens.

The last workshop was *Backyard Beekeeping & the Amazing Honey Bee*, by Master Gardener Barbara Hughes, who is also a member of the Santa Barbara Beekeepers Association. The presentation covered the history of beekeeping, the life of the honey bee, plants that attract bees, and how to get started in beekeeping.

In conjunction with National Public Gardens month, Master Gardeners participated with local public and private agencies in the Garden Lovers Tour of three gardens: Lotusland, Casa del Herrero, Alice Keck Park Memorial Garden. They accompanied the tour and docents from each of the facilities lead the tours. (Santa Barbara is the first in the nation to participate in the 2012 National Public Gardens Day on a citywide basis and to form a growing collaboration with over twenty nonprofit, public sector, university, and hotel partners).

Master Gardeners continue their monthly collaboration with the Santa Barbara FoodBank – “Grow Your Own Way”. The project distributes seeds and educational instruction and promotes gardening for home food production. There are at least two bilingual Master Gardener volunteers that are present to help give gardening information and answer any gardening questions the client may have. Approximately 80% of the clients are Spanish speaking. Master Gardeners play an integral role in assisting families with gardening questions and helping them grow their own food.

In June, Master Gardeners developed and delivered “Backyard Composting & Vermicomposting Composting – Simply Done” and “Vermicomposting – Worms That Eat My Trash” at Santa Barbara City College. Composting was presented by Master Gardener Steve Lewis and Vermicomposting was presented by Master Gardener Joel Marshall.

The Master Gardeners volunteer at an information table at the downtown Santa Barbara Farmers’ Market. The help table is staffed four times a month, weather and staffing permitting. This past fiscal year, they provided assistance to backyard gardeners on the following issues:

- Plant selection for climate and plant health
- Planting season for edibles and getting the most from crops

- Integrated Pest Management
- Sustainability and water conservation
- Plant disease diagnosis and County Ag pest alerts
- More complex gardening questions answered by the Help Line for follow up
- Awareness of the program and membership for annual training

Fiscal Year 2012-2013 Statistics:

- Table staffed 32 Saturdays*
- 25 individual volunteers*
- 256 total volunteer hours*
- 661 total people contacted*

Master Gardeners support school gardens at local schools and public education on gardening with their efforts at the Santa Barbara Botanic Garden, and the La Huerta Project at the Santa Barbara Mission.

SANTA BARBARA COUNTY 4-H YOUTH DEVELOPMENT PROGRAM
Advisor Richard Enfield and Program Representative III Sherry Mills
Office Assistant Rosemarie Aigner, Program Representative II Andrea Borunda

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 SB County by the University of California, Agriculture & Natural Resources.

4-H Club Enrollment and Number of Individuals Served

- At the end of this quarter, 852 youth members were enrolled in 4-H Community Clubs, an increase of 23% over the previous two years. Additionally, 62 youth participated in 4-H Military Club projects at Vandenberg Air Force Base. A total of 4,536 individuals participated in Santa Barbara County 4-H group enrollment programs, including 4-H Agua Pura watershed education, hands-on science, and other 4-H learning activities at various community and school events.
- The number of 4-H Adult Volunteers enrolled in the 4-H Community Clubs totaled 241 adults, an increase of 7% over the previous two years. When translating time into a dollar amount per hour of service to the 4-H YDP, these 241 volunteers contributed over \$435,000.00. This number is based on the assumption that our volunteers spend, on average, 75 hours per year contributing to 4-H.

4-H Professional Development and Volunteer Training

- SET Key Leader Kathy Foltz provided training in the 4-H experiential learning model to four students in the UCSB Chapter of the American Institute of Chemical Engineering on

April 2, 2013. The students became 4-H Adult Volunteers to lead a 4-H Chemistry Project.

- Shooting Sports & Safety Key Leader and Certified 4-H Shotgun Trainer Steven Adam taught a 4-H Shotgun Training Workshop on April 6, 2013 in Santa Maria. Seven 4-H Adult Volunteers took the training to become certified 4-H Shooting Sports & Safety – Shotgun Project Leaders.
- Sherry Mills and Andrea, 4-H program staff, attended the UC ANR Statewide Staff Conference: *California Roots, Global Reach* in Ontario April 9-11, 2013. They received training on youth science literacy, cultivating diversity, communication, managing work life, and relationship building.
- All Star Advisor Tiffany Crane and All Star Bailey Albin attended the South Sectional 4-H Leaders' Council Meeting in Walnut on April 13, 2013. They shared information and resources with volunteers from nine counties in the South Section and received program updates from California 4-H to bring back to the Management Board.
- Adult Leadership Key Leader Linda Greco and the Adult Leadership Program Development Committee put on a workshop for volunteer leaders on April 21, 2013 in Sisquoc. At the request of the committee, Advisor and County Director Richard Enfield came to educate and inform the volunteers about the potential loss of funding for UCCE and 4-H.
- Sherry Mills oversaw the Program Development Board meeting in Los Alamos on April 22, 2013, with the PDB Key Leaders and Management Board Assistant Director/Liaison to the Program Development Board Carla Renard in attendance.
- Camp Wahoo! Director Pat Bradley conducted training and planning meetings for the camp staff and counselors in Los Alamos on April 23, May 26, and June 30, 2013.
- Management Board Director Mary Thieleke Jackson conducted the annual joint meeting of the Management Board and Program Development Board on April 29 in Goleta. Sherry and Andrea were also in attendance.
- Sherry and Andrea joined a California 4-H Workgroup on Building and Sustaining Engagement with Diverse Audiences at the group's initial meeting at the UC ANR Staff Conference on April 10 and participated in the group's Webinar on May 30, 2013.
- All Star Advisor Tiffany Crane and All Star Bailey Albin attended the South Sectional 4-H Leaders' Council Meeting in Walnut on June, 8, 2013.
- Management Board Director Mary Thieleke Jackson conducted the Santa Barbara County 4-H Management Board Meeting in Los Alamos on June 17, 2013, with the adult and youth members of the board and Sherry in attendance.
- Sherry oversaw the Santa Barbara County 4-H Program Development Board meeting in Los Alamos on June 23, 2013, with the PDB Key Leaders and Management Board Assistant Director/Liaison to the Program Development Board Carla Renard in attendance.
- Sherry and Andrea met with an adult and a teen interested in starting a new 4-H Community Club and trained them on the requirements of starting a new club on June 25, 2013.
- Sherry distributed 4-H Project Leader Training materials to adult volunteers attending County 4-H Record Book in Lompoc on June 29, 2013.

4-H County-wide Events for Youth & Families

- Expressive Arts Key Leader Kathy Thompson created and coordinated a brand-new event, *4-H Extravaganza*, which included 4-H club and project booths, a fashion revue, and a project skills competition. The event was held at the Town Center Mall in Santa Maria on April 6, 2013, and provided a wonderful opportunity for 4-H'ers to outreach to the community. Families from THRIVE Santa Maria were given special invitational flyers. Nine 4-H Community Clubs, 30 adult volunteers, 60 youth members, Visibility Director Don Fletcher, Sherry, and Andrea participated in the event.
- A 7-week County-wide 4-H Chemistry Project coordinated by SET Key Leader Kathy Foltz and lead by UCSB Chemical Engineering students trained as 4-H Adult Volunteers, took place April 9 – May 21, 2013. This was the third consecutive year of this project. Participants learned about chemical reactions, various materials, and enjoyed educational hands-on experiences such as making lava lamps, writing invisible messages, making dry ice soap bubbles and egg parachutes, and had lots of fun. This enriching experience was *enjoyed* by 10 youth members from 3 different 4-H Community Clubs.
- The County-wide SET Committee presented the 4-H Agua Pura watershed education model at the Vieja Valley School Science Night in Santa Barbara on April 11, 2013.
- Many 4-H adult volunteers and youth members participated in Santa Barbara Fair & Expo at the Earl Warren Showground on April 24 – 28, 2013. They donated their time to help organize the entries and set up the displays in the 4-H and youth departments before opening day. During Fair & Expo, 4-H members exhibited animals, hand-made items and educational posters, and performed live presentations and demonstrations for the public. The 4-H Agua Pura watershed education model was presented to students, parents, and teachers from six schools, who came to the Fair & Expo School Day Tour on April 25. The model was also presented throughout the 5-day event.
- Two County-wide Sheep & Goat Clinics were held at the Santa Ynez Equestrian Center on May 11 and June 8, 2013. These clinics were coordinated by Carla Renard and the Santa Ynez 4-H Club. Nutrition and fitting were discussed as well as showmanship techniques and feedback for novice, intermediate and experienced show exhibitors.
- Exhibit Day Chairman Mike Norris oversaw County 4-H Exhibit Day held at the Santa Maria Fairpark on May 18, 2013. This very exciting annual 4-H educational event is where youth members come together to show large animal, small animal, and still exhibits and compete for the title of County Winner in each division. Project leaders, 4-H families, alumni, and friends come out to support the 274 young people who showed off what they'd been working on during the program year. Over 800 people attended the event.
- The annual County 4-H Member Record Book Judging was held in Lompoc on June 29, 2013. Thirteen clubs participated by entering a total of 108 gold seal Record Books. Forty-five adult volunteers judged the books and awarded 34 County Winner and 44 Medalist awards.

4-H State-wide and Nation-wide Events Attended by County 4-H Members

- Eight 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 on May 25, 2013.
- Citizenship Key Leader Allan Jones and five teens from the Lucky Clover and Santa Ynez 4-H Clubs make up the Santa Barbara County 4-H delegation to the 2013 4-H

Washington Focus Program. After participating in a trip to Washington D.C. and the East Coast on June 23 – 29, 2013, they returned home to plan a local service learning project as part of the program.

4-H Management Board, Program Development Board and Staff Changes

- Karen Skou-Ludwig was selected as Management Board Awards Director on June 4, 2013.
- Kathy Thompson's term as the Program Development Board's Expressive Arts Key Leader and Mike Norris's term as Large Animal Science Key Leader ended. Kathy Thompson applied for, and was selected, as the new Large Animal Science Key Leader on June 4, 2013.
- Julie Jorge was selected as the Program Development Board's new Expressive Arts Key Leader on June 20, 2013.
- Richard Enfield retired on June 27, 2013 as County Director and 4-H Advisor for the University of California Cooperative Extension in San Luis Obispo and Santa Barbara Counties. He served the University of California for more than 33 years.
- Dr. Katherine E. Soule joined UC Cooperative Extension as the Youth, Families, and Communities Advisor for San Luis Obispo and Santa Barbara Counties on June 25, 2013. She has a diverse educational experience with a BA in English, MS in Agriculture—both from Cal Poly—and PhD in Counseling and Human Development Services from the University of Georgia. She brings passion for education, research, and collaboration. Katherine places great value on diversity and is committed to developing and delivering inclusive 4-H programming. Through this position, Katherine is honored to work alongside those committed to 4-H and improving the lives and well-being of our local youth and other residents.