



Humboldt and Del Norte UC Cooperative Extension 2014 Year in Review

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UCCE is dedicated to improving the quality of life of Californians by developing and delivering research-based information in agriculture and natural resources, and by supporting healthy families and communities.



Director's Report

Spring is upon us! As the growing season begins I am enjoying reflecting on the fruits of the last year.



In this 2014 Year in Review, we offer highlights of how our programs touch families, communities and local businesses. To accomplish our mission we partner with Humboldt and Del Norte Counties to offer **practical** solutions to life's problems, **connecting** the issues to the informational resources of the University of California and providing **trusted** research-based solutions.

During 2014 our amazing team was busy. We hosted several well-attended "Let's get local" farm tours in both counties. Deborah Giraud (plant sciences advisor) offered a Small Farm - Master Gardener program and the Master Food Preserver program (see page 3). Jeff Stackhouse (livestock advisor) provided a broad range of animal and natural resource educational events and extended UC Davis research to our region. Our work in wildland and prescribed fire gained momentum. With grants funds we have been able to provide specialized programming for tribes (see FRTEP story page 5) and nutrition education (see EFNEP page 5).

This January Thomas Stratton joined our program and is bringing fresh ideas and lots of 4-H experience from Oregon. Thomas replaced Sandy Sathrum, who retired after spending 38 years with UC 4-H (12 years as a 4-H staff person, 16 years as a 4-H Leader, and 10 years as a 4-H member).



As we have for the last century, in 2014 we brought many UC experts to our region; they addressed cottage food business development, family succession, beef herd health, farm water quality management, safe and appropriate techniques for prescribed fire, nutrition, youth development, forest health and more.

You are more than welcome to stop by, give us a call, or follow us on Facebook. We look forward to assisting you.

Yana Valachovic, County Director and Forest Advisor



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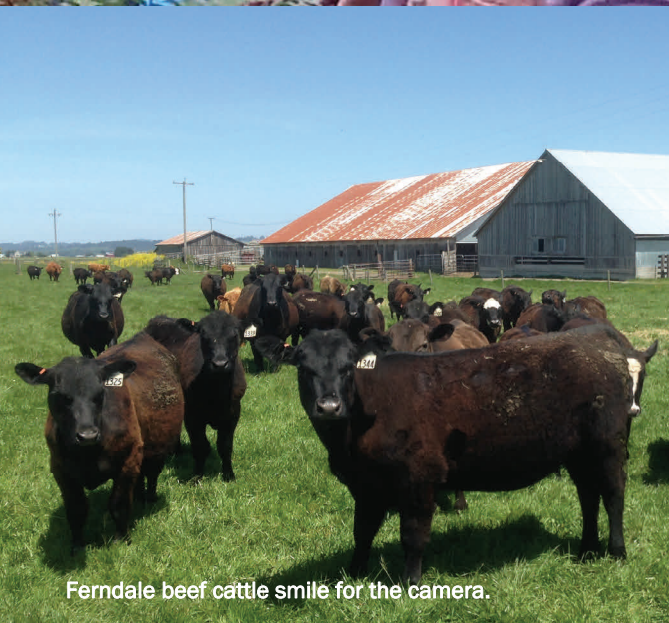
UCCE Partners with the Community through



Field tour participants walk the fireline next to a recent prescribed burn at Whiskeytown.



Teachers learn to measure tree height.



Ferndale beef cattle smile for the camera.

FIRE OUTREACH AND EDUCATION

UCCE is the northern hub of the California Fire Science Consortium, which provides a number of fire science resources to managers and landowners throughout the region. Last spring, we hosted field tours in Redwood National Park and Whiskeytown National Recreation Area, highlighting the unique plant communities in each place and the role of fire science in shaping management strategies. During the fall, we co-sponsored two events that were organized by the Northern California Prescribed Fire Council, including a two-week prescribed fire training (TRES) event as well as a large fire management conference in Sacramento. More events are planned for the coming year. Webinars, research briefs and other resources are available on the Consortium website at www.cafiresci.org and on the Council website at www.norcalrxfirecouncil.org.

FORESTRY INSTITUTE FOR TEACHERS

For the last 20 years, the Forestry Institute for Teachers (FIT) has provided K-12 teachers with knowledge, skills and tools to effectively teach their students about forest ecology and forest resource management practices. The week-long program, which takes place in the summer, brings together natural resource specialists and teachers from rural and urban settings, working side by side to gain a deeper understanding of the intricate relationships between forest ecosystems and human use of natural resources. FIT seeks to provide balanced, science-based education vital to the understanding of how decisions are made about management of forests and the natural resources upon which humans depend. Since 1994, ~700 teachers have been through the Humboldt FIT program! To learn more, visit forestryinstitute.org.

LIVESTOCK WORKSHOPS

2014 was a great first year for our new livestock program. The Winter Livestock Health Tours covered beef cattle mineral supplementation and rangeland water quality, followed by the Spring Dairy Workshop, which addressed dairy water quality and the new farm bill. The 4-H Livestock Show and Sale Buyer's Letter workshops assisted youth in developing buyer's letters and presented ideas for marketing their livestock prior to the youth livestock auctions. Humboldt County Goat Education Day unveiled concerns about potential poisonous plants resulting from intensive goat grazing practices. California-Pacific Society for Range Management annual meetings granted continued education credits to rangeland professionals and discussed rangeland management and Aleutian geese. McArthur FFA Advanced Leadership Class visited Humboldt County to see the diversity of North Coast agriculture, including oysters, grass-fed dairies, Easter lily bulbs and redwood production. Lastly, the annual California Dairy Quality Assurance program was provided by UCCE and others in Ferndale this fall. A big "Thank You" goes out to all who attended these workshops and to the producers who hosted these events!

Educational Programs

EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM (EFNEP)

The USDA-funded EFNEP in Humboldt and Del Norte Counties has helped improve the lives of families in our community for the past two years! One mom of the Healthy Moms program stated, “I have taken time to plan meals based on healthier choices.” This mom was one of the 232 parents to complete the program this year. Of those adults, 86% improved in their nutrition practices, such as planning their meals, making healthy food choices, reading nutrition labels and encouraging children to eat breakfast. We continue to collaborate with community agencies, such as the Pregnancy Care Center, California Tribal and Yurok Tribe TANF (Temporary Assistance for Needy Families), Humboldt County Department of Health and Human Services, Bonnie Brown and Lee Brown Programs and the Family Resource Centers. In addition to the adult program, we graduated 90 youth at Crescent Elk Middle School in Del Norte County. Although many youth struggle with making healthy food choices, our program helps guide their decision-making process through the Eat Fit program, which focuses on goal setting, label reading, breakfast, exercise and advertising. One student shared the challenge and her triumph: “Even though sweets aren’t healthy, they are nice once in a while, but veggies are great all the time. So are fruits.” Of the graduates, 80% improved their ability to make healthy food choices that are consistent with the federal dietary recommendations. All classes are taught in English or Spanish by Jessica Rebholtz.

LET’S GET LOCAL FARM TOURS

In Del Norte, over 60 participants visited Annie Mack’s Family Produce, Alexandre EcoDairy Farms and Ocean Air Farms. One of the day’s many highlights was seeing the innovative, truly free-range chicken operation that began years ago as a Future Farmers of America (FFA) and 4-H project by two of the Alexandre children. At the Humboldt Farms and Wines Tour along the Avenue of the Giants, 25 participants toured two produce farms, Flood Plain Produce and the Corn Crib, and concluded with a tour of vines and wines at Rosina Vineyards.

WATER REGULATORY COMPLIANCE

UC specialist Dr. Deanne Meyer and livestock advisor Jeff Stackhouse have been working closely with Humboldt and Del Norte dairy producers, in collaboration with Western United Dairymen, the Humboldt County Resource Conservation District and the Natural Resources Conservation Service to assist dairy producers with water quality regulatory compliance. Dr. Meyer has also been working closely with the Easter lily bulb growers in Del Norte County to address water quality concerns. Additionally, she led an effort to assess the comprehensive investment all north coast dairymen have committed to improving water quality since 2012. These data will be presented to the state water board during future discussion of proposed fee increases on confined animal operations across the state.



Jessica Rebholtz, nutrition educator, with Crescent Elk Graduates.



Chickens and watchful puppies at Alexandre EcoDairy Farm.



Ferndale dairy cows coming in for milking.

UCCE Creates Knowledge through



Douglas-fir getting a stronghold in an oak woodland.



Brendan Twieg testing stream water for sudden oak death.



A tanoak killed by sudden oak death in Redwood National Park.

OAK WOODLAND RESEARCH

Yana Valachovic and Lenya Quinn-Davidson are currently leading a large, multi-county research project focused on conifer encroachment in deciduous oak woodlands. Last summer marked the second and final field season of the project, which will compare the ages of oaks and conifers in encroached stands and characterize the impacts of encroachment on biodiversity and tree health. The dendrochronology lab at Humboldt State University is leading the tree age component of the study, and is currently processing more than 1800 tree cores that were collected over the last two years. Early results have already documented that some of the oak trees date back to the 1700s, with conifers only becoming dominant in most sites in the second half of the 20th century.

STREAM MONITORING TO DETECT SUDDEN OAK DEATH (SOD)

Three new stream sites in Humboldt County tested positive for *Phytophthora ramorum* (the pathogen that causes sudden oak death) during the 2014 stream monitoring efforts. Monitoring streams and rivers is one of the most widely used and efficient methods for detecting *P. ramorum*, and it continues to be an important tool for tracking the pathogen at the margins of the infestation in the North Coast. Thanks to the collaboration of numerous community, tribal, private, state and federal groups and agencies, 99 stream sites are monitored annually from February through May for *P. ramorum* in Humboldt and Del Norte (with one site in northern Mendocino), making the North Coast the most intensively monitored region in California. Brendan Twieg and Dan Stark have been busy surveying the region's streams and forests to map the extent of the infested areas of the North Coast. These maps are available at cehumboldt.ucanr.edu/Sudden_Oak_Death/ and specialized maps can be made for your specific needs.

SUDDEN OAK DEATH GETS TO REDWOOD NATIONAL PARK

A sudden oak death infestation in Redwood National Park was uncovered on a joint scouting trip by UCCE and Redwood National Park in summer 2014. Suspecting that the disease may be spreading down the Redwood Creek corridor from the closest known infestation in the area—near the residential area of Redwood Valley—the team started on a 3-day trip down Redwood Creek, on foot, from Lacks Creek (about 7 creek miles upstream of the southern Park boundary). To their surprise, they found infected trees 15 creek miles northwest of the nearest known infestation, not far upstream of the well-known Tall Trees Grove in the Park. Further aerial and ground scouting turned up another infestation 2 air miles farther north along Redwood Creek in the Park. How the disease spread here is unknown. The Park's vegetation manager has instigated treatments of the infestations to reduce local spread. This disease point is the farthest north in California and puts the disease close to Yurok tribal lands and Del Norte County.

Research and Special Projects

DAIRY HEALTH

UCCE scientists across the state are interested in assessing Bovine Respiratory Disease Complex (BRD) prevalence in dairy calves and identifying management practices that may lead to increased BRD. Preliminary analysis of North Coast dairies has shown that dairy breed (Jerseys) and group housing may lead to increased BRD occurrence, whereas age of calf, geographic region, organic versus conventional and sex of calf did not show significant results. Future analysis of 10,000 calves across the state should provide additional insight and will likely identify management factors that are harder to detect at smaller scales.

TRIBAL EXTENSION PROGRAM

The Federally Recognized Tribes Extension Program (FRTEP) is a USDA grant program created to address a long-standing need among the tribes for equal access to Extension programs, with a focus on youth and production agriculture. In 2014, the staff included Andrea Lanctot, Kailie Pena and Deborah Giraud. Andrea worked with schools in Klamath, Weitchpec, Pecwan and Orleans to expand and support existing school garden projects. The program brought kids into the garden and delivered hands-on lessons about plant life cycles, seed starting, transplanting, cultivation, harvesting, composting, vermicomposting, pollination, water conservation, nutrition and more. The “Ishkeesch tunviiv” (Children of the River) after-school program in Orleans revitalized the community garden and incorporated a native food field trip to harvest Indian potato with Frank Lake (USFS researcher and cultural resource specialist). The Orleans 6-8th grade class also repaired and ran a greenhouse to grow starts for the Orleans community garden and other school gardens. FRTEP also supports the Hoopa High School garden club greenhouse project, brought in a grant for the high school garden, leads sessions on college and career exploration and preparedness and just started a community health survey. Yurok, Hoopa and Karuk students participated in a six-day Oregon college tour, which included special tours with Native American college students and on-campus long houses. With support from FRTEP, the Klamath Siskiyou Outdoor School hosted their annual cost-free natural resource restoration and outdoor skills camp. Twenty youth participated in hands-on river restoration projects, learned about local ecology and got to participate in rafting, paddle boarding, kayaking and backpacking. Deborah Giraud helped draft a grant with Hoopa 4-H leader Allie Hostler to revitalize the Hoopa Rodeo grounds. The grant helped the Hoopa 4-H club and Pony Project plant shade trees, purchase a tractor and buy new arena sand. To celebrate and raise further funds, the Hoopa 4-H club hosted a Blackberry Festival at the rodeo grounds, complete with gymkhana, horse pie bingo, archery shooting, carnival games, face painting, mist tent and local vendors. Throughout the fall and winter, canning, food preservation, cottage food and fruit tree pruning workshops were offered in Klamath, Hoopa, Weitchpec and Orleans.

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UCCE staff at the Humboldt County Agriculture Center

UCCE Partners with the Community and

COMMUNITY PARTNERS

UCCE contributes to the community through partnerships and collaborative activities with local groups, organizations, and agencies to achieve common goals. The following is a list of some of the partners with whom we collaborated this past year. We appreciate working with each of you. Thank you for your service to our community!

American Ag Credit	James Able Forestry
Buckeye Conservancy	Karuk Tribe
Bureau of Land Management	LatinoNet
Bonnie Brown Residential Treatment Center	Learn and Serve America, EHS Project Serve
CAL FIRE	Les Brown Residential Treatment Center
CA Beef Cattle Improvement Association	Mattole Restoration Council
CA Center for Rural Policy	McKinleyville Family Resource Center
CA Department of Fish and Wildlife	Natural Resources Conservation Service
CA Department of Parks and Recreation	Northcoast Co-op
CA FarmLink	Northcoast Environmental Education Network
CA Fire Science Consortium	Northcoast Gardening Collaborative
CA Oak Mortality Task Force	Northcoast Regional Land Trust
College of the Redwoods	Northern CA Prescribed Fire Council
Community Assistance Network	Northern CA Society of American Foresters
Crescent Elk Middle School	Northwest California Resource, Conservation & Development Council
Decade of Difference	Pregnancy Care Center
Del Norte Co. Dept. of Health and Human Service	Redwood Coast Institute
Environmental Protection & Information Center	Redwood Community Action Agency
Food for People	Redwood National and State Parks
Food Council of Del Norte Co. and Adjacent Tribal Lands	Redwood Region Logging Conference
Fortuna Family Resource Center	Rio Dell Family Resource Center
Friday Night Live	Small Business Development Corporation
Green Diamond Resources Company	Society for Range Management
Healthy Moms, Eureka	St. Joseph Hospital— Madre a Madre Program
Hoopla Valley Tribe	Temporary Assistance for Needy Families (CA Tribal, Yurok)
Humboldt and Del Norte Cattlemen's Association	USDA Forest Service
Humboldt Area Foundation	Watershed Research and Training Center
Humboldt Community Network	Western United Dairymen
Humboldt Co. Department of Health and Human Service	Westside Community Improvement Assoc.
Humboldt Co. Farm Bureau	Wiyot Tribe
Humboldt Co. Fire Safe Council	Women in Timber
Humboldt Co. Food Policy Council	Yager/Van Duzen Environmental Stewards
Humboldt Co. Office of Education	Yurok Tribe
Humboldt Co. Resource Conservation District	
Humboldt Co. Weed Management Area	
Humboldt Co. Wool Growers Association	
Humboldt Redwood Co.	
HSU Forestry and Wildland Resources Department	

4-H IN HUMBOLDT AND DEL NORTE

WHAT IS 4-H?

The 4-H Youth Development Program, coordinated by Dorina Espinoza and Thomas Stratton, seeks to engage youth to help them reach their fullest potential. Youth experience a sense of belonging within a safe and inclusive environment, master their skills through hands-on learning, develop their independence through leadership opportunities, and learn generosity through service learning projects. All these experiences are fostered through partnerships with caring adult volunteers. Together youth and adults partner to 'Make the Best Better' at the local level.

CARING ADULT MENTORS

Nearly 290 adult volunteers are partnered with youth through the Humboldt and Del Norte 4-H programs. The adults are screened, trained and supported to work with youth in a safe and inclusive environment. The 4-H youth work with adult mentors to become proficient in public speaking, problem solving, achieving goals, caring for others and making healthy lifestyle choices. These 4-H Adult Volunteers use their own creativity to help youth develop a sense of belonging and achievement in their communities.

EQUIPPING WITH LIFE SKILLS

All 4-H activities engage youth to develop the skills they need to be successful throughout life. The youth are introduced to a variety of topics that allow them to pursue their own interests. The adult volunteers use UC curricula for over 50 hands-on projects, ranging from junk-drawer robotics to animal husbandry and filmmaking, all to ignite curiosity, develop critical thinking and stimulate career prospects. They set and accomplish meaningful goals that help them reach skill mastery.

DEVELOPING YOUTH LEADERS

The 4-H program provides opportunities for youth to be the leaders of today. They have opportunities to serve as members and even chairs of 4-H committees at the local, regional, state and national levels. They also collaborate with other groups to bring events to our community, including the Northcoast Youth Summit, a day of inspiring speakers and leadership workshops. These youth mature in self discipline and responsibility to become independent thinkers and leaders of tomorrow.

RESPONDING TO COMMUNITY NEEDS

Service learning activities connect 4-H youth to local needs in tangible ways to benefit others. Whether collecting goods for Food for People, providing a petting zoo, or growing pumpkins for school kids, each project strengthens our communities through generosity.

STRENGTHENING RELATIONSHIPS

4-H prepares youth to be the leaders of today, which transfers into taking the lead in future endeavors. Youth have opportunities to participate on local, regional, state and national levels, meeting people from all walks of life and preparing for a lifetime of success! 4-H is a place where generations spend quality time exploring, growing and learning together to better themselves and others.

Extends Services through Volunteer Programs

MASTER FOOD PRESERVERS

This program provides educational outreach in food preservation. The third MFP train-the-trainer program was held with 14 graduates in March 2014. The participants attended 8 classes delivered through a combination of lectures, videos and hands-on preparation of preserved foods. There are now 26 volunteers teaching food preservation techniques in Humboldt and Del Norte. They meet once a month to plan programs and fulfill continuing education requirements to keep abreast of the latest information. The bi-monthly demonstration classes at the Eureka Co-op have been well attended. Lately, the group has been helping people learn how to make sauerkraut and kimchi—two foods of great local interest. If you would like a demonstration for a group of your friends or neighbors, give us a call and we will match you up with a volunteer or two!

MASTER GARDENERS

This year a new course, the Small Farm and Master Gardener Short Course, was held with 25 participants. With this new format, Deborah Giraud organized the program to visit four commercial farms and have five classroom educational sessions. The past graduates of the Master Gardener programs continue to volunteer on various projects throughout the county. For example, Master Gardeners Claire Perricelli, Melanie and Ron Kuhnle and others have been working to develop the Ryan House and Garden Project in Eureka. The project includes a heritage rose and cottage garden, a vegetable garden and now young fruit trees. The Heritage Society, with Bill Peers at the lead, has bought the building and gardens. Over the last 8 years College of the Redwoods Historic Preservation students, led by Bill Hole, renovated the Ryan House victorian, which will house the Heritage Society.



Canning tomatoes at the Ag Center.



Deborah Giraud leads a pruning workshop.



2014 4-H awards night

**University of California
Cooperative Extension-Humboldt and Del Norte
5630 South Broadway
Eureka, CA 95503-6905**

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If you have special needs,
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Upcoming workshops and events

Upcoming 2015 events

California State Fair Youth Livestock Exhibitor Quality Assurance and Ethics Training: April 21st at 6 p.m., Del Norte County Fairgrounds, Crescent City.

Fire ecology tour: Learn how a previous prescribed burn aided in slowing a 2014 wildfire and protecting the town of Weaverville, April 22 from 9 a.m.– 3 p.m.

North Coast Sudden Oak Death Coordination Meeting: April 23 from 9 a.m.– 5p.m., Fortuna River Lodge.

Eel River Groundwater Legislation Meeting: April 27th from 10 a.m. to 12 p.m., Agriculture Center, Eureka.

Ties to the Land: Succession Planning Workshops: April 28th and May 5th from 6:00-8:30 p.m. at the Agriculture Center, Eureka.

Fire ecology tour: Tour the 2014 Lodge Fire, May 7 from 10 a.m.– 3 p.m. at the UC Angelo Reserve, Laytonville.

Northern California Chaparral Fire Hazard Summit: May 19 from 10 a.m. to 4 p.m., Hopland Research and Extension Center.

Redwood Region Forest Management and Marketing Opportunities Workshop: May 20 from 9 a.m. to 5 p.m., Agriculture Center, Eureka.

Forestry Institute for Teachers– K-12 teacher curriculum enhancement program: July 12-18, Humboldt State University, Arcata.

Useful Resources

This collection of excellent informational resources can help you in the home, garden or with your agriculture or natural resource business.

- **Pest management** information for your home or garden ucipm.ucdavis.edu
- **Forestry resources**, publications and big ideas on how to steward California forest lands ucanr.org/sites/forestry
- Tips on how to grow a successful home **orchard** homeorchard.ucdavis.edu
- **Small and family farms** resources and information sfp.ucdavis.edu
- Research-based information on important issues facing the **horticulture industry** ohric.ucdavis.edu
- Downloadable **publications** regarding agriculture and natural resources anrcatalog.ucdavis.edu
- UC research-based information, accomplishments, and statewide extension activities in planting, growing, and harvesting **fruits and nuts** fruitsandnuts.ucdavis.edu
- Information relevant to California vegetable **consumers, growers and processors** vric.ucdavis.edu
- Research in **weed management** wric.ucdavis.edu