

Humboldt and Del Norte UC Cooperative Extension 2016 Year in Review

Published April 2016

*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.*



New oak restoration funding (page 4).



UC President Janet Napolitano visits with Greg Dale of Coast Seafoods on a tour of the north coast.

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Director's Report

The year started with discussion of drought effects, fueled by speculations as to how 100 million dead trees in California would drive large wildfires, but it is amazing to see how a few months, and a lot of rain, can change your perspectives. For those of you who have dirt roads to maintain and have jumped on board with storm proofing your roads, this was the winter to wait for. On my own place, all the culvert upgrades really paid off. I credit my UC colleagues, Pacific Watershed Associates, DFG, and Natural Resources Conservation Service, for helping our region understand that undersized culverts and poorly designed roads really are a liability.



2016 had many milestones for Cooperative Extension. Our communities were visited by the UC president for the first time ever; Janet Napolitano, former Secretary of Homeland Security and Governor of Arizona (see photo left) was inspired by our community's ability to work together across many complex issues. We also helped advance major policy changes that provide new tools to manage oak woodlands (see page 4) and for bioenergy advancement (see page 4). We thank Assemblymember Jim Wood for carrying both of these bills and working so hard for our region.

In this 2016 *Year in Review*, we offer highlights of how our programs touch families, communities, and local businesses. To accomplish our mission, we partner with both Humboldt and Del Norte Counties to offer **practical** solutions to life's challenges, **connecting** the issue to the information resources of the University of California, and providing **trusted** research-based solutions.

All of us at Cooperative Extension feel so fortunate to work with you. If you are looking for an opportunity to give back to your community, consider becoming a 4-H leader or a Master Food Preserver (page 7). These community members are having a lot of fun sharing their skills.

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

Yana Valachovic, County Director and Forest Advisor



Redwood Symposium (page 2)



Master Gardeners in Crescent City (page 7)



Fire science education (page 2)



Master Food Preservers (page 7)

UCCE Partners with the Community through

Nebraska ranchers visit the Hunt Ranch (Bridgeville)



FIRE OUTREACH AND EDUCATION

In her first year as the Area Fire Advisor, Lenya Quinn-Davidson hosted a number of trainings and workshops focused on fire-related issues. Events in Lake County, Garberville, and Eureka covered wildfire effects, oak woodland restoration, and prescribed fire. A strong theme of Lenya's work this year has been prescribed fire on private lands, and she has worked closely with Livestock Advisor Jeff Stackhouse to provide more training and inspiration to landowners throughout Humboldt County. In August, Lenya and Jeff invited ranchers from Nebraska and Iowa to visit Humboldt County and share their prescribed fire successes, and in December they hosted a prescribed fire training for private landowners. More events, including live-fire trainings on local ranches, are planned for 2017.

Female participants in the Prescribed Fire Training Exchange



WOMEN-IN-FIRE PRESCRIBED FIRE TRAINING EXCHANGE

For the last four years, the Northern California Prescribed Fire Council has worked with UCCE, the Fire Learning Network, and others to host a two-week, hands-on prescribed fire training event in the fall (the Nor Cal TREX). In 2016, the event had a unique focus on women who work in fire, and women and men came from 11 states and 4 countries to improve their prescribed fire skills, learn about local fire ecology, and build a supportive network for women as they advance in their fire careers. The event, called "WTREX," was the first training with this focus, and more WTREX events are being planned in different parts of the country for the coming years. The Council will continue to host the Nor Cal TREX every October here in northern California. For more information, visit the Council's website at www.norcalrxfirecouncil.org, or email UCCE's Lenya Quinn-Davidson, the lead organizer for these events, at lquinn@ucanr.edu.



Redwood symposium attendees in Eureka

REDWOOD SYMPOSIUM

In September 2016 Yana Valachovic and her collaborators, brought the Redwood Symposium back to Eureka to help the region's landowners, managers, and policy makers exchange ideas. This symposium is part of a continuing effort to promote the development and communication of scientific findings to inform management and policy decisions. Over 350 people attended this regional three-day conference, where more than 70 talks were featured and four field trips allowed participants to learn from each other. If you missed the event, the presentations were recorded and posted on the event website (<http://ucanr.edu/sites/Redwood2016/>) and a written proceedings is in development. Since 1996, when the event started in Arcata, the symposium has been held in Rohnert Park (2003) and in Santa Cruz (2011), stay tuned for a future redwood symposium in 2021.

Educational Programs

EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM (EFNEP)

Serving both Humboldt and Del Norte Counties, Jessica Rebholtz and Dorina Espinoza provide impactful and quality nutrition education and healthy lifestyle classes to adults and youth in our communities. Now in its fifth year, the USDA-funded Expanded Food and Nutrition Education Program (EFNEP), works with adults and middle school youth to improve their lives one meal at a time. In 2016, 62% of adult participants improved in at least one nutrition practice (i.e., meal planning, making healthy food choices, preparing food without adding salt, reading nutrition labels and/or feeding children breakfast), and 66% demonstrated an improved ability to manage at least one food resource practice (i.e., compare prices, does not run out of food or uses grocery lists). The youth program also showed success, with 68% improving their ability to choose foods consistent with dietary recommendations. To deliver the program Dorina and Jessica collaborate with the California Tribal and Yurok Tribe Temporary Assistance for Needy Families (TANF), Bonnie Brown and Lee Brown Programs, Humboldt County Office of Education, Eureka Resource Center, Eureka City Schools District, Fortuna Elementary School District, Loleta Union Elementary School District, McKinleyville Union Elementary School District, and others. All classes are taught in English or Spanish by Jessica Rebholtz.

USING RADIO TO DEVELOP COMMUNITY CONNECTIONS

Yana Valachovic has begun hosting a call-in radio program to share stories about what makes this region so special and to bring community conversation to important regional issues. Join Yana when she hosts KHSU's (90.5 FM) Thursday Night Talk. She hosts the evening program a few times a year and typically interviews agriculture and natural resource producers and professionals. Recent programs have covered biomass energy, quinoa (Humboldt's emergent crop), fire, and fishery issues. The shows are archived and can be listened to at a later time.

WINTER HERD HEALTH

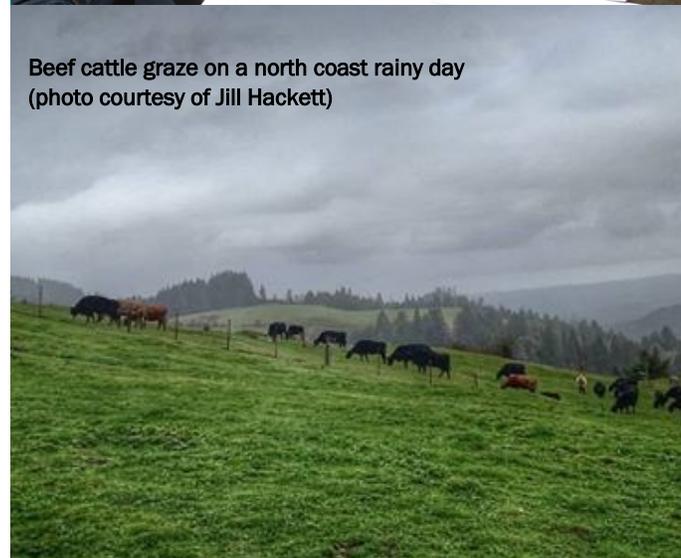
The 2016 winter livestock meeting, held in Eureka, was a great success! The program was designed in response to participant requests and included information on protein supplementation strategies, livestock economics and market outlooks; poisonous plants of Northern California, milk thistle control strategies on Humboldt rangelands, and a local veterinarian's perspective on bovine reproduction challenges. Of the presentations, attendees were most excited about Josh Davy's (livestock advisor from Tehama County) presentation on protein supplementation in which he helped producers navigate the challenges and dietary needs of the lactating beef cow, discussed the marketing ploys of some protein supplementation companies, and provided a cost-benefit analysis of the best ways to keep your herd in good nutritional health during late summer when protein supplementation is often necessary.



McKinleyville Middle School youth prepare for a food tasting.



Studio guests during a live KHSU interview



Beef cattle graze on a north coast rainy day (photo courtesy of Jill Hackett)

UCCE Creates Knowledge through



Black oak in the Bridgeville area experiencing Douglas-fir encroachment

OAK WOODLAND RESEARCH, POLICY AND RESTORATION

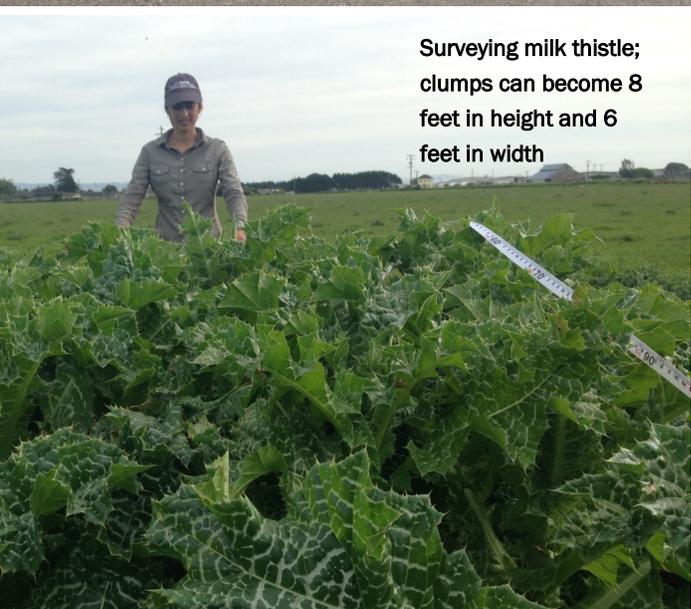
Last year was an exciting year for North Coast oak woodlands, and for Yana Valachovic, Jeff Stackhouse, and Lenya Quinn-Davidson, who are all working together on important oak-related efforts. Drawing from UC's data collected in the north coast and Yana's efforts in Sacramento, 2016 saw the passage of two critical policy pieces that relate to oak restoration and management on private lands: 1) the development of a Special Prescription option within the California Forest Practice Rules to allow for commercial utilization of conifers cut during restoration activities, and 2) Assembly Bill (AB) 1958 (Wood), which creates a new exemption rule to support restoration efforts. The UCCE team also completed the first field season of a Natural Resources Conservation Service (NRCS)-funded research project aimed at assessing oak woodland restoration effectiveness, and helped found the nascent Northwestern California Oak Network, which will provide regional coordination around oak-related research, policy, and restoration. They also worked with NRCS and other partners to establish a new five-year, \$2.68 million dollar oak woodland restoration grant program for landowners in Humboldt, Mendocino, and Trinity counties.



Tour of DG Power where saw mill residues are converted to bioenergy

BIOENERGY FOR HUMBOLDT

The need to dispose of bark and milling residues has long been a regional challenge. Humboldt is fortunate to have three power plants that can utilize both saw mill and forest residues to provide a renewable source of energy and simultaneously help with forest health and wildfire prevention, and provide a means to dispose of chips and bark. Recent decreases in natural gas prices have impacted these regional power plants and in 2016 two of the power plants were shuttered. In response to this crisis, Yana Valachovic and Dan Stark worked with regional policy makers to help support development of a community choice energy program. This 2017 program will enable Humboldt to pursue its own priorities, such as local energy generation, and to support economic development. Additionally in 2016, at the request of Yana and the County of Humboldt, Governor Brown signed AB 1923 (Wood) to help incentivize small-scale bioenergy development.



Surveying milk thistle; clumps can become 8 feet in height and 6 feet in width

MILK THISTLE RESEARCH

Milk thistle is a problem in some of Humboldt County's best range and pasture lands. Jeff Stackhouse initiated a milk thistle control trial assessing 7 herbicides (6 conventional and 1 organic) at 2 application rates. Results suggested that 2, 4-D and Triclopyr (Garlon) were best at controlling very large, well established thistle plants. Results were similar within the fog belt and in interior pastures. Additionally, Stackhouse is working with Dr. Susan Edinger Marshall (Humboldt State University) to assess organic control options to control milk thistle on organic rangelands. In this project, Jeff and Susan are assessing the efficacy of 3 organic herbicides (vinegar, Suppress, and Avenger), mowing, digging individual plants, and digging + seeding. Early results suggest that the two hoeing methods are the most effective. Contact Jeff Stackhouse for more information and updates as these trials progress.

Research and Special Projects

FORAGE TRIALS

Jeff Stackhouse is working with a group of UC livestock and natural resource advisors and specialists to assess the newest varieties of drought-resistant clover and medic varieties from Australia for livestock forage. To date, the team has established research sites in Lassen, Tehama, Napa, and Humboldt counties. The team hypothesizes that with establishment of drought-tolerant plant species, and the addition of hardy legumes, local livestock operations will become more robust as forage options persist later into the growing season. If managed correctly, successful medic seedings may provide economic benefits, especially during future droughts and later in the annual forage cycle.

TRIBAL EXTENSION PROGRAM

The Federally Recognized Tribes Extension Program (FRTEP) is in its 6th year. This program is supported by a USDA grant to address a long-standing need among tribes for equal access to extension, with a focus on youth and production agriculture. Deborah Giraud, Norma McAdams and Allie Hostler had a very active year working with tribal partners. 2016 highlights included: 1) working with Klamath, Weitchpec and Pecwan school gardens, where students received hands-on lessons in plant life cycles, seed propagation, transplanting, composting, vermicomposting, water conservation, nutrition and more; 2) supporting the Hoopa High School garden club greenhouse project with materials, educational lessons, and information about agriculture careers; 3) helping two students from Jack Norton School attend the Klamath Siskiyou Outdoor School for natural resource restoration and outdoor skills development; 4) helping support the harvest festival at the Hoopa rodeo grounds; and 5) providing food preservation and fruit tree care workshops. It is exciting to see that many of the tribal communities are gardening and several tribal staff were able to attend the Master Gardener program. The FRTEP thanks Kaelie Pena and Nicole Woodrow (FRTEP interns), who both moved on to full-time jobs in June.

COYOTE BRUSH TRIALS

Jeff Stackhouse, in response to a community interest, installed a research project to evaluate control methods for coyote brush using a variety of chemical and application techniques. In the absence of periodic fires, coyote brush invades rangelands throughout the north coast. Included in the research are glyphosate (Roundup Max), imazapyr (Rotary 2 SL), 2,4D (Weedar), and triclopyr (Element), along with three application techniques, including 1) foliar spray to wet, 2) drizzle spray to wet, and 3) hack and squirt. Preliminary results support the application of both glyphosate and imazapyr as effective chemical agents to control coyote brush and the early evaluation suggests that both drizzle and foliar spray methods successfully kill the plants, though drizzle requires less labor. The research sites will be evaluated for one more year and final statistical results should be available in 2018.

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UCCE staff at the Humboldt County Agriculture Center
(Jacki Bennett and George Nelson not pictured)

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	
Astronomers of Humboldt	Humboldt Co. Wool Growers Association
Buckeye Conservancy	
Bureau of Land Management	Humboldt/Del Norte Open Door Clinic
Bonnie and Lee Brown Residential Treatment Center	Humboldt Redwood Company
CAL FIRE	Humboldt State University
CA Beef Cattle Improvement Association	James Able Forestry
CA Center for Rural Policy	Karuk Tribe
CA Conservation Corps (Fortuna Center)	LatinoNet
CA Department of Fish and Wildlife	Mattole Restoration Council
CA Department of Parks and Recreation	McKinleyville Middle School
CA FarmLink	Natural Resources Conservation Service
CA Fire Science Consortium	Northcoast Co-op
CA Oak Mortality Task Force	Northcoast Environmental Education Network
Coastal Connections	Northcoast Gardening Collaborative
College of the Redwoods	Northcoast Regional Land Trust
Decade of Difference	Northern CA Prescribed Fire Council
Del Norte Co. Dept. of Health and Human Services	Northern CA Society of American Foresters
Del Norte Farm Bureau	Northwest California Resource, Conservation & Development Council
Environmental Protection & Information Center	Pregnancy Care Center
Fire Learning Network	Redwood After School Network
Fire Adapted Communities Learning Network	Redwood Coast Institute
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	Small Business Development Corporation
Friday Night Live	Society for Range Management
Green Diamond Resources Company	South Fortuna Elementary
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 Co. CattleWomen's Association	Western United Dairymen
Humboldt Co. Department of Health and Human Services	Wild Rivers Community Foundation
Humboldt Co. Farm Bureau	Winship /Zane After School Program
Humboldt Co. Fire Safe Council	Wiyot Tribe
Humboldt Co. Food Policy Council	Women in Timber
Humboldt Co. Office of Education	Yager/Van Duzen Environmental Stewards
Humboldt Co. Resource Conservation District	
Humboldt Co. Weed Management Area	

4-H IN HUMBOLDT AND DEL NORTE

WHAT IS 4-H?

The 4-H program is an informal and practical educational program for all youth 5-19 years of age. In 4-H 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.

BELONGING

Humboldt and Del Norte Counties have 225 caring 4-H adult volunteers working with 613 4-H youth members. The adult volunteers develop positive caring relationships with the youth and help them feel physically and emotionally safe through a respectful and inclusive environment. Our adult volunteers really get to know the 4-H youth through multiple interactions like club meetings, fund raisers, and community service events. The volunteers provide listening ears, follow through on commitments with the youth, provide examples of boundaries, help build team work, and help create a sense of connection and belonging to their communities.

MASTERY

Volunteers receive training to equip youth with the resources, support and tools to guide them in tapping into their interests and curiosity and learn to problem solve and meet challenges. The 4-H adult volunteers bring their expertise and interests to the 4-H youth to lead projects and activities through a hands-on experiential learning environment. A sample of the varied projects offered by our talented adult volunteers includes: bucket calf, photography, quilting, dairy cattle, digital media, dog care & training, food preservation, engineering, shooting sports & archery, cycling, and rabbits.

INDEPENDENCE

The 4-H youth become independent thinkers, decision-makers, and agents of change through leadership development opportunities, such as co-chairing the 4-day overnight Summer Camp, chairing Coats-for-the-Cold donation drive, chairing the annual county-wide Lamb BBQ fundraiser, co-chairing the annual Presentation Day, chairing Tour of the Unknown Coast assistance team, and serving as an officer in a 4-H Club. In addition, we have youth serving as 4-H County Ambassadors where they are the liaisons between the office, 4-H members and volunteers, and the public. Further, we had youth participate in Leadership Washington focus and build confidence in their ability to motivate and direct others in meaningful action; practice effective communication; work with others to create and accomplish goals; and exchange ideas, practice respect, and form friendships with other 4-H'ers from across the nation.

GENEROSITY

Youth build a connection with their communities through community service learning activities. By participating in these activities youth develop an awareness and compassion for others.

Extends Services through Volunteer Programs

MASTER FOOD PRESERVERS

Master Food Preservers provide educational outreach in food preservation in both Humboldt and Del Norte counties. The 5th train-the-trainer program was held in February 2016, and included 14 graduates who attended 9 classes delivered through a combination of lectures, videos and practiced hands-on preparation of preserved foods. These trained and certified volunteers can be seen at the Arcata farmers' market, where they have prepared recipe sheets for ideas on how to prepare what's in season. By buying in-season and in bulk, families can preserve foods, save money on their food budget, and have a stash of food when the power goes out. 2016 included community workshops at the family resource centers and Food for People. 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!



2016 Master Food Preserver graduates

MASTER GARDENERS

In 2016 the 13-week Master Gardener class had 30 graduates. After completing their training, Master Gardeners share their knowledge by volunteering with various projects throughout Del Norte and Humboldt counties. Highlights from 2016 include: 1) two Master Gardeners attending an integrated pest management advanced training in Butte County and sharing that information locally; 2) United Indian Health Services development of tribal gardens, and tribal staff improving their skills through participation in the Master Gardener program; 3) Zeal Stefanoff teaching gardening at Blue Lake summer day camp every Friday throughout the summer; 4) participating in the Humboldt County Fair with mini-workshops and having staff available throughout the fair to answer questions; 5) Bill Peer, Melanie Kuhnelt and Claire Perricelli supporting the beautiful Ryan House garden. The interest in home gardening continues to thrive and the Master Gardener program is helping support local interest and education!



4-H leaders smile for the camera at a training.



Master Gardeners teaching composting at Arcata Elementary School.



4-H members at the fair with their animals.

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If you have special needs,
please let us know.

Upcoming Workshops and Events

2017 Events

- Beef Quality Assurance Training.** April 26th, Eureka.
- Dairy Calf Workshop.** May 11th, Ferndale.
- Live Fire Training.** June 12th (tentative), Bridgeville.
- Oak Woodland Restoration and How Recent Policy Changes can Support your Project.** Late spring, date TBA, Eureka.
- Forestry Institute for Teachers– K-12 teacher curriculum enhancement program.** July 9-15, Humboldt State University, Arcata.
- Nor Cal Prescribed Fire Training Exchange (TRES).** Late October, across northwestern CA.
- Family Succession Planning.** Fall 2017, Crescent City.
- Dairy Water Quality Compliance.** Fall 2017, Ferndale.
- Sudden Oak Death Management.** Fall 2017, location TBA.
- 4-H Lamb BBQ.** October 2017, Fortuna.

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
- Information related to **production, harvest & processing of foods** ucfoodsafety.ucdavis.edu