

**University of California
Cooperative Extension
Mendocino and Lake Counties**

**Annual Report
1998-1999**

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University of California Cooperative Extension

Mission Statement

The mission of the University of California Division of Agriculture and Natural Resources is to serve California through the creation, development and application of knowledge in agricultural, natural and human resources.

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Program Description

The University of California Cooperative Extension in Mendocino and Lake Counties is part of a statewide system that makes UC research-based information available to local agencies, industries, and the public. Our mission is to sustain a vital agriculture, environment, and community in Mendocino and Lake Counties by providing University of California research-based information on management, nutrition, and youth development. In the counties we are also known as the Farm Advisor's Office.

Our programs operate through a unique partnership between county government, the UC system, support from the USDA, and other private funds. Backed by the resources of the UC campuses, our educational programs use practically-applied research to solve community problems. We consult with individuals and organizations, publish newsletters, produce information for mass media, and conduct seminars and workshops; we also conduct research on local problems.

4-H Youth Development and Human Resources

4-H Program

The 4-H Program continues to grow and expand with the help of three paraprofessionals. In Mendocino County total group enrollment is over 1,500 including about 700 youth in the traditional 4-H program plus youth registered in the After School Program and special projects. In addition, over 260 adult volunteers support the 4-H program. The Lake County 4-H program reaches over 250 youth with about 100 adult volunteers. Recent 4-H activities include:

- The Mendocino Coastal representative was successful in organizing a 4-H club for the Comptche area in addition to introducing the

Coastal community to more 4-H activities through short-term projects such as 3-on-3 basketball. Coastal 4-H members also work with the animal shelter to socialize the animals so they are more adoptable. To better serve coastal clientele, an office in Fort Bragg opened in October of 1999.

- ❑ The Inland 4-H Program Representative was successful in building up the teen program by organizing an interstate exchange. Also High 4-H (for members in grades 7-12) meet for a variety of social and leadership activities throughout Lake and Mendocino County.
- ❑ The Navajo Churro Project successfully organized and funded a trip to take 79 Navajo Churro sheep and two truckloads of fleece to the traditional weavers of the Navajo Nation in Arizona. The Mendocino 4-H members were "adopted" by the Navajo Nation and also shared program ideas and fun other 4-Hers from Navajo County, Arizona.
- ❑ The 4-H Summer Camp was the biggest and most successful to date. This summer a total of 42 teens served as directors, deans, and counselors at a four-day camp for 175 younger members aged six to 13 years old.
- ❑ The Lake County Summer Day Camp offers families an alternative to day care for school-age children during the summer months. Special activities provide supervised fun for youngsters.
- ❑ The 4-H Program Representatives are busy spreading the word that the 4-H program is more than "cows and plows." Information booths were staffed at the local fairs emphasizing the variety of projects available in addition to the more traditional animal projects. Many potential new members were identified through outreach programs at the fairs.

Hunger Task Force

Advisor Evelyn Conklin-Ginop is currently conducting a food study involving local food banks and food distribution centers in Lake and Mendocino Counties as part of a larger survey. After the survey is completed, the published findings will help to set up a Hunger Task Force to address local needs. Results of the food study will be shared with legislators.

Food Stamp Nutrition Education

With the change in the new Welfare Reform Laws and the number of families in Mendocino and Lake Counties receiving Food Stamps, it became obvious to Advisor Conklin-Ginop that there was a need to provide an educational program to assist families in making better and healthier food choices within their budget. She applied for and received a Food Stamp Nutrition Education (FSNEP) grant from the USDA in 1997 to hire a half-time paraprofessional (Linda Edgington) to develop and conduct this Mendocino County program. Because of the overwhelming success of the program in Mendocino County, Advisor Conklin-Ginop pursued another FSNEP grant for Lake County. Funding for this program begins in October, and a search for a FSNEP program representative is underway.

The FSNEP Program Representative works with various agencies to reach low income and Food Stamp recipients. Over the past year, the program in Mendocino County reached 146 families teaching them about food safety, stretching food dollars, and basic nutrition using the food guide pyramid and conducting food demonstrations.

The Food Stamp Nutrition Education Program is delivered through Mendocino County human service agencies including the WIC program, Social Services, Alcohol and other Drugs Program and North Coast Opportunities' Head Start Program. The newest and one of the most effective partnerships is with the Young Parent Program at Ukiah High School. The program intends to expand to the outer areas of Willits, Potter Valley, and Hopland and is also exploring program delivery through Migrant Education. A similar outreach program is planned for Lake County. Once the Hunger Task Force completes the food survey, there are plans for the FSNEP program representatives to set up mini workshops at the local Food Banks.



Livestock and Natural Resources



The Livestock and Natural Resources Program is focused on training clientele in water quality issues, natural resource management, and livestock production. Ongoing research looks to answer specific questions with regard to livestock grazing and water quality issues.

Educational Programs

- Water Quality Planning Short Courses:** Ranchers and vineyard managers representing 68 properties in Mendocino and Lake Counties participated in a water quality planning short course where they learned how their management can affect Mendocino and Lake Counties' erosion and nutrient loading of the counties' waterways. The landowners have received more than 22 hours of instruction on causes, correction, and prevention of non-point source pollution. Those courses resulted in the formation of three watershed groups in Willits, McNab Creek, and the Russian River. Graduates of our courses are the chair and co-chairs of these watershed groups. In cooperation with the Natural Resource Conservation Service, another series of short courses is currently in progress in Gualala and Willits.
- Cattle College:** A six-session Cattle College course completed in mid-May of 1999 provided more than 18 hours of instruction on methods of improving cattle production through the use of research-based techniques. The course covered nutrition, animal health, marketing, range and pasture management, and reproduction. Twenty-two ranchers from Lake and Mendocino County completed Cattle College.
- Cow-calf Quality Assurance Program (QAP):** A beginning and an advanced animal health quality assurance program is planned for this fall. Cow-calf producers who participate in the program, co-sponsored by the California Cattlemen's Association, can certify their herds and increase the marketability of their product. QAP certified calves receive a premium price when sold.

- Grass Identification Field Days:** Two Grass Identification Field Days were held in May at the Hopland Research and Extension Center where about 50 participants learned to identify grasses, sedges, and rushes throughout the rangelands of Mendocino, Lake, and Sonoma Counties. This popular program is repeated annually.
- Dairy Hoof Health Field Day:** On September 24th a field day was held in Point Arena on dairy hoof health care. One hundred percent of the north coast Mendocino County dairies attended the training and live animal demonstrations.
- Sheep Shearing School:** This annual five-day hands-on course is intended to teach participants how to shear sheep to maintain a quality wool clip and minimize stress to both the participants and the sheep. Included in the course is care and maintenance of shearing equipment.
- Web Site:** To assist livestock and natural resource owners and managers, a web site provides information on diverse topics ranging from water quality to cattle and sheep health and range management. The site, located at <http://danr.ucop.edu/ucce/r>, also provides local access to other web sites in the Division of Agriculture and Natural Resources.

Research

Watershed Study: More than \$95,000 in grants helps the Livestock and Natural Resources Advisor conduct applied research on paired-watershed studies, sediment inventory, and stream temperature studies. In addition, two projects surveying both domestic livestock and wildlife for water-borne pathogens that can affect human health are in progress. Initial results show that by keeping young lambs away from riparian areas contamination by *Cryptosporidia parvum*, a protozoal parasite that can cause illness or death in humans with compromised immune systems, is minimized. An extensive research program on the Garcia River is examining air and water temperature, dissolved oxygen, canopy cover, macroinvertebrates and various riparian assessment techniques to assist landowners in that watershed determine best management practices to minimize effects of NPS pollution.



Forest and Wildlands Management

Outreach Programs

The Forestry and Wildlands Program conducted and participated in a number of educational workshops aimed at improving awareness among landowners, agency personnel and policy makers regarding conservation of natural resources. Topics included estate planning for forestland owners, oak woodland conservation, management considerations for wildlife and fisheries habitat, water quality considerations in native forest systems and forest sustainability considerations.

Research Programs

Research and creative activity projects are aimed at providing information to clientele for both short and long-term management considerations. Research topics include:

- Evaluating relationships between silviculture and vertebrate feeding damage to second-growth redwood stands.
- Monitoring land-use management impacts on wetland habitats in oak woodland habitats.

- Creation of the Redwood Forest Foundation, Inc. A non-profit organization made of timber, environmental and academic interests with an intent of pursuing financial options for timber land ownership and management.

Public Service

The program continues to provide support to a number of public efforts. Some of these efforts include: the Mendocino Forest Council, the California Department of Forestry Jackson Demonstration State Forest Advisory Committee, Navarro River Watershed Advisory Committee, the Mendocino and Lake County Office of Education, Lake County Resource Conservation Districts, the California Association of Resource Conservation Districts and the California Forest Stewardship Committee.

Integrated Hardwood Management Program

The North Coast IHRMP program is active in addressing the recent expansion of vineyard development in oak woodlands. The program organized and participated in a number of workshops and other educational events during 1998-99. Another activity includes participation in the Pierce's Disease management committee. The committee's role is to evaluate impacts on oak woodland resources and develop a management manual. Additionally, a joint effort between the IHRMP program and north coast viticulture advisors is developing a riparian management manual for vineyards to lessen the impacts from vineyard development.

Viticulture and Plant Science

Research Programs

Evaluating New Plant Material for Vineyards: There are still many acres of vines planted on A XR-1 root stock that will need replacement in the next ten years as "B" type phylloxera invades Mendocino County. We have confirmed finds of this pest in every grape growing region in the county. As vineyards are replanted, growers have

the opportunity to update and improve the cultivars they are growing and the clones of these varieties. Since most vineyards last 30 to 50 years, choosing the right plant materials is critical. During the past year, we concluded a trial at La Ribera Vineyards in Ukiah that evaluated the performance of Cabernet Sauvignon planted on 10 root stocks. The trial is ten years old and has given us valuable information on resistance to nematodes, drought, and poor soil conditions. Growers have visited the trial many times and are planting their vineyards based on observations and results from this trial.

Evaluating wine grape cultivars that are suited to warm sunny conditions is an important effort underway in Lake and Mendocino Counties. The most commonly planted wine grapes in new planting in California originated in Northern Europe, which has a relatively cool climate. While Pinot Noir, Chardonnay, Merlot, Sauvignon Blanc and Cabernet Sauvignon perform well in the cooler regions of California, they don't always result in top quality products when grown in the warmer regions of the state. The climate of Southern Europe is more like California. Since so many of California's ornamental flora comes from that region, it makes sense that the wine grapes from there would also perform well in our state.

In Lake County, ten wine grape cultivars from the Mediterranean are being evaluated in two locations. The one acre plots were started as a joint effort of the Lake County Wine Grape Commission, and UC Cooperative Extension under the initial direction of Rachel Elkins. The vines in this plot are in their second year of mature bearing. Experimental wines are being made by Dr. Oenes Huisman, UC Berkeley, and his friends who are talented amateur wine makers. One location is in the warmer Red Hills area and the other is in the Big Valley area which has deeper soils and a cooler climate. The two plots are managed by cooperators Bob and John Roumiguire.

In Mendocino County, a two-acre vineyard planted to 46 cultivars is located at the UC Hopland Research and Extension Center (HREC). This year is the first data collection harvest. Wines are being made by five cooperating wineries including Gallo Sonoma, Sebastiani, Fetzer, Fife and Domaine St. Gregory.

The interest in this project goes well beyond growers in Lake and Mendocino Counties. Last fall, Viticulture Advisor Glenn McGourty traveled to Europe for two months, visiting vineyards and wineries along the Mediterranean Rim in Portugal, Spain, France, Italy and Greece. He purposely visited the native areas of many of the varieties in the University's HREC test plot. He also located expert speakers on these different varieties. Last year, working with UC Davis University

Mediterranean Winegrape Trial



The following varieties are planted in the vineyard at the Hopland Research and Extension Center.

<i>Sangiovese</i>	<i>Grenache</i>
<i>Freisa</i>	<i>Nebbiolo</i>
<i>Alghianico</i>	<i>Mourvedre</i>
<i>Dolcetto</i>	<i>Syrah</i>
<i>Cinsault</i>	<i>Corvina</i>
<i>Canaiolo</i>	<i>Temperanillo</i>
<i>Montepulciano</i>	<i>Roussanne</i>
<i>Arneis</i>	<i>Fiano</i>
<i>Marsanne</i>	<i>Pinot Gris</i>
<i>Viognier</i>	<i>Padegebit</i>
<i>Negroamaro</i>	<i>Marzameno</i>
<i>Chardonnay</i>	<i>Muscato di Terracina</i>
<i>Suavis</i>	<i>Muscato di Pantarella</i>
<i>Mammalo Toscano</i>	<i>Souzao</i>
<i>Greco</i>	<i>Verdehlo</i>
<i>Peperella</i>	<i>Touriga</i>
<i>Tocai</i>	<i>Pelaverga</i>
<i>Pinot St. George</i>	<i>Teroldego</i>
<i>Malvasia bianca</i>	<i>Picolit</i>
<i>Muscat blanc</i>	<i>Furmint</i>
<i>Aleatico</i>	<i>Forestera</i>
<i>Lambrusco</i>	<i>Peperella</i>
<i>Clairette</i>	<i>Vernaccia</i>
<i>Morastel</i>	<i>Nebbiolo lampia</i>
<i>Corvina</i>	<i>Refosco</i>
<i>Grillo</i>	<i>Inzolia</i>

Extension (UNEX), an "Emerging Varietals" conference was held at the University, featuring five international speakers, with 125 people in attendance. Many of the varieties presented were virtual unknowns in the United States, with no supporting literature translated into English. Written descriptions and photographs were assembled for the participants and wines tasted from their native regions.

Two new developments in the viticulture program are an "Emerging Varietals" teaching vineyard at UC-Davis featuring many of the cultivars discussed at the conference. Planted by the UC Viticulture and Enology Department, the focus of the vineyard is varieties from the warm regions of Europe. The second development is the hiring of a student intern from Italy to assist in the field and lab work associated with the Mendocino and Lake County experimental plots. Ivana Picciau is a student of viticulture from the University of Turin and also is assisting with the translation of technical information on the Italian varieties being tested.

Already this trial is helping to encourage growers and wineries to plant and vinify new varieties including Sangiovese, Dolcetto, Syrah, Viognier, Marsanne, Roussanne and others. Visitors from other wine growing regions and countries including Napa and Sonoma Counties, the Central California Coast, Spain, Italy, Argentina, Greece and Australia have visited the test plots.

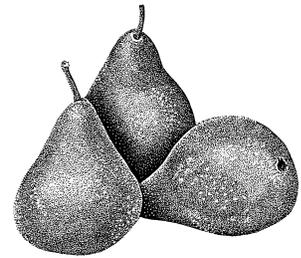
Finally, Anderson Valley is gaining a great reputation for Pinot Noir and Chardonnay. Two new clonal trials have started cooperatively with Roederer Estate US to systematically evaluate new materials for planting in Anderson Valley.

Educational Programs

Master Gardener Program, Fort Bragg: Finding reliable gardening information is often difficult, and training skilled volunteers has been a problem for the Mendocino Coast Botanical Gardens in Fort Bragg. The Gardens is a tremendous draw for tourism and relies heavily on volunteers for their operations. Working with UCCE, a Master Gardener Program was taught with UC and local instructors. Participants receive 60 hours of training and volunteer an equal amount of time back performing a variety of tasks, including answering garden calls, serving as garden docents, and teaching children about gardening. This service-oriented program helps to build skills and create interest in horticulture on the coast and improves the quality of life for the coastal region. Twelve people successfully completed the program.

Mendocino County Promotional Alliance

The Mendocino County Promotional Alliance (MCPA) was successfully funded by Mendocino County for fiscal year 1998-99. UCCE Mendocino County has a position on the MCPA Board of Directors, and Glenn McGourty serves in that capacity. During the first year, MCPA developed bylaws, set policy, hired an executive director, staged one Mendocino County promotional event in San Francisco, and is planning events in Sacramento, Chicago and San Francisco during the next 6 months. More importantly, MCPA is providing a framework to effectively promote Mendocino County as a tourist destination and a food and wine region. For the first time, multiple industries and chambers of commerce are working effectively and in a coordinated fashion to accomplish this task. The concept of public/private partnership and investment in this important task is taking root, and a new era of regional promotion has been born.



Pomology

The Lake/Mendocino County Pomology Program currently focuses on three major areas: insect pest management, disease management, and horticulture. In 1999, Pomology Advisor Rachel Elkins supported and/or supervised five grant-funded research assistants, the Lake County Pomology Research Associate, one Mendocino County-paid agriculture technician, and one student aide. Along with pears, other crops served by the program include walnuts, apples, and olives. Besides Lake and Mendocino Counties, Advisor Rachel Elkins also serves pear growers in Sutter and Yuba Counties and partially supports a grant-funded research assistant based in the Sutter-Yuba office.

This past summer, a UC grant-funded intern assisted the Pomology Advisor with three major projects:

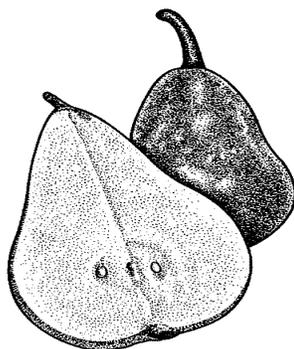
- The six-leaflet series, **Agriculture in Lake County, California**, was developed as a follow up to the very popular forum **Farmers and Neighbors: Exploring Land Use Conflicts and Solutions** that was presented by UCCE on December 7, 1996;
- The **Lake County Farmers and Neighbors Ag Tour**, was on September 16, 1999. This guided tour was attended by members of local planning departments, county and city officials, local tribal members, real estate agents and chambers of commerce. Stops were hosted by local growers and agriculture groups. The purpose of the tour was to give these individuals the opportunity to learn about local agriculture and view actual situations where farmers and their non-farming neighbors must work to co-exist successfully.
- The second edition of the **Lake County Factbook**, a publication of tables, graphs, and maps showing land use demographics in Lake County was published. It was originally produced to accompany the Farmers and Neighbors forum in 1996. These projects are part of the Lake County Farmers and Neighbors Program initiated by the Pomology Advisor in 1995.

Research

Codling moth (*Cydia pomonella*) is the key pest of pears in California. The economic threshold for damage in cannery loads is 5% (including all defects). Damage in untreated controls runs from 10-50%, signifying a great need for effective control. In 1998, the California Department of Pesticide Regulation severely restricted the use of the organophosphate insecticide azinphosmethyl (e.g. Guthion™), the most effective codling moth insecticide available to pear growers. In 1999, EPA further restricted the use of azinphosmethyl under the Food Quality Protection Act (FQPA). The main alternative insecticide, encapsulated methyl parathion (i.e. PennCap™), was eliminated by EPA under FQPA as of January 2000. These state and FQPA use restrictions have necessitated the immediate transition of the 20,000 acre California pear industry into alternative pest management programs.

Current research in pears focuses on the implementation of mating disruption using an alternative and reasonably priced dispenser, the puffer. This dispenser, developed by the late UC Riverside researcher Dr. Harry Shorey, was the focus of three years of pear industry-funded UC research in Lake County from 1996 to 1998, transitioning to commercial demonstration in 1999 under CalDPR and USDA grants obtained by the Pomology Farm Advisor. Funding allowed an implementation team to monitor dispenser efficacy, trap catches, egg laying, and fruit damage, as well as deliver a comprehensive extension program.

In 1999, the cooperators involved in the project consisted of ten pear growers in Kelseyville, Lake County and four growers in Potter Valley, Mendocino County. Puffers were applied to approximately 900 acres of Bartlett and Bosc pears. The growers paid for dispensers and pheromone, a substantial monetary commitment. An economic analysis of alternative programs is also underway.



Extension Goals for Mendocino and Lake Counties

To continue to provide educational and applied research programs that ensure:

- Preservation of Mendocino and Lake Counties' natural resources through promotion of scientifically sound management practices.
- Agricultural and forestry practices are both economically and environmentally sustainable.
- Animal and plant agricultural products are creatively marketed so that the economic base is expanded.
- The Board of Supervisors of Mendocino and Lake Counties receive timely information on resource and land use issues so they may make informed decisions.
- Local youth become informed future leaders by their participation in both traditional and non-traditional 4-H activities.
- The people of our area are provided unbiased information so they can make informed decisions and improve their quality of life.

Extension Objectives

- Develop a coordinated, science-based UCCE Specialist, Advisor and landowner/watershed group applied research and monitoring program to systematically address the critical issues and knowledge gaps in stream temperature dynamics and sediment delivery on rangeland and coastal streams in Mendocino and Lake Counties.
- Increase the use of electronic media – satellites and the World Wide Web – to deliver information and educational programs to more remote areas of both counties.
- Continue to identify new crops and marketing opportunities for growers that are both economically sound and environmentally sensitive.
- Expand the number of youth and volunteers involved in both traditional and non-traditional 4-H programs.
- Increase the educational materials available to low income families and youth to improve their quality of life.

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