

*UNIVERSITY OF
CALIFORNIA
COOPERATIVE
EXTENSION*

*Annual Report
Marin County 2001 - 2002*

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Dairy Quality Assurance

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Agricultural Producers Survey

Our Mission & Goals

The University of California Cooperative Extension in Marin is part of a statewide system that makes UC research based information available to local agencies, industries and the public. Cooperative Extension's mission is to serve California through the creation, development and application of knowledge in agricultural, natural and human resources.



Academic staff are at the forefront of change. Goals include working to preserve agriculture, protecting our environment, helping communities shape wise public policy, and strengthening community development and leadership skills in our youth and adults. In Marin County 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 information to solve community problems. We consult with individuals and organizations, publish newsletters, conduct local applied research, produce information for mass media, and conduct seminars and workshops.

Serving both Marin and Sonoma counties, the livestock, marine, range, and dairy science programs work with producers, industry representatives, resource agencies, and other interested groups addressing the following topics:

Agriculture and Natural Resources with a special focus on:

- ☞ promoting and diversifying Marin agriculture
- ☞ environmental protection
- ☞ water quality in Marin watersheds
- ☞ animal health & welfare

Urban Horticulture with a special focus on:

- ☞ providing Integrated Pest Management information to landscape industry
- ☞ coordination of Sudden Oak Death information locally
- ☞ volunteer Master Gardeners providing community service at schools, community gardens and other public spaces

4-H Youth Development with a special focus on:

- ☞ providing nutrition and gardening education and curricular materials
- ☞ hands-on project based learning
- ☞ science literacy
- ☞ 4-H teen teachers and mentors program

2001-2002 Funding Sources

Federal	\$ 67,410
County	204,555
University	369,753
Grants	262,953
Gifts	2,500

Direct funding comes from four primary sources: Federal 8%, State 39%, County 24%, and external grants at 29%. For every \$1 the county provides other sources contribute \$4.

Special Events

Second Annual Sudden Oak Death Summit

Coordinators: County of Marin; Multi-county Planning Committee; California Oak Mortality Task Force

Co-sponsors: Counties of Mendocino, Monterey, Sonoma, Napa, Alameda

175 people from 18 counties representing parks, fire, agriculture, neighborhood associations, special districts and local, state and federal agencies attended the summit for a briefing on the latest information on the disease.

Library Series

Coordinator: Mary Short, Master Gardener

Master Gardener volunteers taught a range of fall and spring gardening talks for 172 Marin residents at the Novato, San Rafael and Mill Valley public libraries. Master Gardeners focus on the least toxic approaches to solving horticultural problems and stress reduction of plant waste through composting and conservation of water through appropriate plant selection.

Farm Day

Coordinator: Jane Chin Young, Planning Committee

Co-sponsors: Marin County Office of Education; Farm Bureau; Marin Agricultural Land Trust; Marin Farmers Market; Marin County Fair & Exposition; Marin Center; 4-H Council; Corte Madera-Sausalito Farmers Market

Over 2,000 Marin schoolchildren ages 4-10 attend this annual educational event at the county exhibit hall where live animal and interactive exhibits teach about the heritage and diversity of Marin agriculture. Awards are given for the best essays and murals.



The Real Poop II: Livestock Agriculture and Water Quality

Advisor: David Lewis

Co-sponsor: Marin Agricultural Land Trust (MALT)

The second in a two-part series of community lectures was presented in conjunction with studies being conducted in Tomales Bay. Professor James Moore from Oregon State University offered research from Tillamook Bay that can provide lessons for Tomales Bay. A total of 60 community members attended.



4-H Program Events

Advisors: Jane Chin Young & Cindy Jensen

Cooperators: Marin 4-H Council; 4-H volunteer leaders; community organizations

4-H reached over 4,000 people through organized clubs and groups, collaborative events and fairs. 295 adult volunteer leaders donated 23,360 hours of service. With an enrollment of 650 youth members, community clubs provided learning and growth opportunities through community service and leadership programs. Almost 1,000 more youth in schools and youth centers participated in special interest projects in embryology, environmental education, and gardening.

Total Volunteer Hours in FY 2001-2002

4-H Youth Development Program

295 adult volunteers donated a total of 23,360 hours
Donated Value Equivalent \$513,920

Master Gardener Program

134 volunteers donated a total of 14,305 hours
Donated Value Equivalent \$314,710

Department Total: 429 volunteers donated 37,665 hours.



Volunteer and Community Recognition

Kathleen and Don Seaman, of the 4-H guide dog volunteers program, received a recognition award for their 22 years of service at a Board of Supervisors ceremony.

Jim Jensen, of the Tomales 4-H club, was selected as one of 8 teens to represent California at the National 4-H Conference in Maryland. Jim is a senior at Tomales High School and student body president.

Jim Farley, Manager at the Marin Center, was recognized by the Marin 4-H Council as the 2001 Friend of 4-H recipient at their annual awards program for his exemplary service to the Marin 4-H program.

Kathy Reiffenstein, outgoing Marin Master Gardener board president, was honored for her work on the *Marin Independent Journal* weekly column and her 5 years of volunteer service to the community.

2001-2002 Special Project Highlights



Organic & Sustainable Agriculture Program

Funding: Clarence E. Heller Foundation; County of Marin; UC Sustainable Agriculture Research & Education Program (SAREP)

Duration: 2002-2005

The project is designed to strengthen the viability and long-term success of Marin agriculture by assisting farmers and ranchers with diversification. The "Grown in Marin" program has several components including ongoing speaker series on crop and farm diversification, a monthly newsletter with information about new and profitable marketing opportunities, field trials assistance and the production of a web-based directory connecting farmers to consumers.

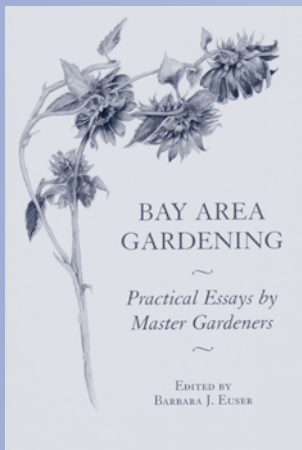


Sudden Oak Death (SOD) Regional Coordination

Funding: California Department of Forestry; California Oak Mortality Task Force

Duration: 2001-2003

Staff ecologist Janice Alexander provides regional and county coordination on Sudden Oak Death in close cooperation with the California Oak Mortality Task Force. Last fiscal year over 2,000 Marin residents were provided information about SOD. Janice maintains a database on current research efforts, and provides education materials and assistance to other infected counties.



Bay Area Gardening, Practical Essays by Marin Master Gardeners

Funding: Donations

This book contains 66 concise, informative pieces on a wide range of gardening topics, all written by Marin County Master Gardeners. Originally written for a weekly column in the *Marin Independent Journal*, each topic in this volume reflects basic philosophies such as non-toxic solutions to common pest problems, wise use of natural resources and reliance on a balanced ecology to create healthy, sustainable gardens. Proceeds from the sale of the book go towards supporting community service projects in Marin.





Food Stamp Nutrition Education Program

Funding: USDA & California Department of Social Services

Duration: 2002-2003

Marin County 4-H is participating in the Youth Food Stamp Nutrition Education Program (FSNEP) through USDA and the California Department of Social Services. This program promotes a healthy lifestyle for youth and their families who receive food stamps. Staff work with school programs to offer nutrition education. At the completion of the federal year, FSNEP had served 708 youth members, 75% of whom were under age 5 and 70% represented minority groups.



Marin Master Gardener IPM & School Garden Outreach Project

Funding: Marin County Stormwater Pollution Prevention Program (MCSTOPPP)

Duration: 1999-2003

Julie Carter and Cathy Sinclair coordinated the Public IPM and School Garden programs funded by MCSTOPPP. Over 21 schools received consulting on how to start, maintain and integrate their garden into the school curriculum. Information and materials on least toxic alternatives to household and garden pests were provided to almost 2,000 Marin residents at various workshops and special events held throughout the county.

What participants had to say about recent services:

Thanks so much for this wonderful book. It will be a great comfort when the weather is too bad for outside gardening. Thanks also to the Master Gardeners desk that provided bonus information on gophers. I have declared war on the varmint that ate my blue oat grass clump.

-Rosemary Bacy

My dad and I visited your office many times and with your help, we were able to identify many of the plants at my biology project site including grasses, wildflowers and 3 species of oaks. I was able to earn a 92% on my final project!

-Andy Zalko

Thank you for the superb job you and your staff did in putting on the 2nd Annual Sudden Oak death Summit. It was one of the smoothest events I have ever attended, crisply and efficiently programmed from beginning to end.

-Supervisor Cynthia Murray

This is an exciting time for agriculture in Marin and UC SAREP's visionary support of the organic and sustainable agriculture coordinator is one reason for that. Workshops have been well received and Steve is getting to know the concerns of ranchers countywide.

-Warren Weber, Organic Farmer

It is a pleasure to work with Jane Chin Young of UCCE on issues relating to child health. She has provided invaluable leadership and resources to the Marin Children and Weight Coalition of which I am co-facilitator. The wealth of knowledge and enthusiasm that Jane brings to all of our projects is most inspiring.

-Beverly Busher, Executive Director, American Academy of Pediatrics



Dairy Quality Assurance Program

Advisor: Stephanie Larson

Marin Dairy producers attended the trainings held in Petaluma and at least 50% of Marin producers have been certified. The certification process was established statewide to ensure a quality milk product and that producers have met specific environmental stewardship standards.

Grown in Marin Speakers Series

Coordinators: Steve Quirt & Ellie Rilla

Co-sponsors: Marin Organic; Marin Agricultural Land Trust

Funding: Clarence E. Heller Foundation; UC SAREP

Semi-monthly workshops in Pt Reyes for Marin farmers and ranchers with expert panels on value added and crop diversification topics.

2002 Marin Master Gardener Training

Coordinators: Tish Buckley & Cathy Teague

Master Gardeners coordinated this 16 week course on horticulture for 35 selected Marin residents. Class graduates become interns and provide at least 50 hours of community service at the office desk and in the community.

Expanding Your Business Potential

Advisor: Ellie Rilla

Co-sponsors: Redwood Empire Small Business Development Center; Marin Organic

35 agricultural producers attended an afternoon session on business plan development and successful marketing techniques from local entrepreneurs.

Winter Workshop for Grapegrowers

Advisor: Ellie Rilla

Co-sponsors: Marin Grape Growers Association; Agricultural Commissioner's Office

Pacheco Winery was the site for an afternoon workshop for 25 Marin commercial and non-commercial grape growers on erosion control, organic practices and varietal trials.

Water Quality Workshops

Advisors: Stephanie Larson & David Lewis

Several local workshops were held for producers on riparian pastures and grazing management, water development off stream, solar pumps, and funding opportunities for improving grazing practices.

Estate Planning Workshop

Advisor: Stephanie Larson

Co-sponsor: Marin County Resource Conservation District

Landowners attended an evening workshop on estate and financial planning for their ranch operations with presentations from an estate attorney, a CPA, and a conservation easement expert.



Nutrient Budgeting for Dairies

Advisors: Stephanie Larson & Dennis Salisbury

More stringent water quality regulations for dairy and other animal operations may have serious impacts for dairy operators. A workshop on budgeting dairy nutrients for maximum use in field fertilization applications was conducted for Marin and Sonoma dairy producers. New TMDL standards and compliance levels will roll out in 2003.

Quarantine Compliance for Sudden Oak Death (SOD)

Advisor: Pavel Svihra

Co-sponsors: California Oak Mortality Task Force; CDFA; CDFFP; USDA Forest Service; Cities of Novato and San Rafael

Daylong training was provided to 147 arborists and landscapers in June on sampling, recognition, and quarantine compliance for Sudden Oak Death. The course fulfilled California Department of Food & Agriculture requirement that arborists and landscapers be certified as non-regulatory SOD samplers.

Sudden Oak Death (SOD) Community Presentations

Coordinator: Kim Keirnan

Kim presented SOD updates to over 2,000 Marin and Bay Area residents at gardening clubs, Lions Clubs, Native Plant Society, K-12 & college classes, Conservation Corps, and park staff meetings.



Tomales Bay Water Quality Project

Advisor: David Lewis

Cooperator: Tomales Bay Agricultural Producers Group

This three year study monitored fecal coliform levels at ten cooperating dairy and beef operations in the Tomales Bay watershed. Producers are working to better manage nutrient outputs in order to minimize the nutrient loading to the Bay. The results from this research will assist operators in better responding to the anticipated TMDL requirements for reduced fecal coliform regulated and enforced by the Regional Water Quality Control Board.

Phytophthora ramorum Infection Rate and Symptom Progression in a Natural Forest

Advisor: Pavel Svihra

Cooperators: Dr. Dave Wood, UC Berkeley; Dr. Brice McPherson, UC Berkeley

A team of UC Berkeley researchers is studying the role of beetles in the deaths of SOD-infected trees. Sites are located on Marin Open Space District lands with funding for the field research provided by the California Department of Forestry.



Native Oyster Restoration

Advisor: Paul Olin

Cooperators: Hog Island Oyster Co.; UC Davis; Romberg Tiburon Center

Oyster shell bags and native olympia oysters are being outplanted in Tomales Bay as part of a multi-year research project to restore oyster populations and improve the overall ecology of Bay plant and animal

communities. Research has demonstrated an increase in the diversity and abundance of fish and invertebrates, and enhanced native oyster populations by providing good substrate for larvae to settle.



Agricultural Conservation Easement Survey

Advisor: Ellie Rilla

Cooperators: Dr. Al Sokolow, UC Davis; Marin Agricultural Land Trust; Yolo Land Trust; Sonoma Co. Agricultural Preservation & Open Space District

Forty-six agricultural landowners from Marin, Sonoma and Yolo counties who had sold conservation easements were interviewed to assess their satisfaction with their easements. The landowners in most cases were enthusiastic sellers. Their motivations included cash, keeping the land in the family and conservation. They reported generally satisfactory experiences with the easement program.

Copper Sulfate Effectiveness for SOD Prevention

Advisor: Pavel Svihra

Cooperators: City of Novato; Dr. Matteo Garbelotto, Extension Specialist & Adjunct Professor at UC Berkeley

Trials are underway, in cooperation with Dr. Matteo Garbelotto and other cooperators, for a preventative treatment for Sudden Oak Death. The trial looks at the effectiveness of preventing *P. ramorum* infection on mature coast live oaks with a copper sulfate spray. The field trials have been in place for the past year and are continuing this year at Miwok Park in Novato.

Phosphonate Effectiveness for SOD Prevention

Advisor: Pavel Svihra

Cooperators: Dr. Matteo Garbelotto, Extension Specialist & Adjunct Professor at UC Berkeley; Marin County Open Space District

With funding from USDA Forest Service, trials are underway to determine the effectiveness of phosphonate injections on 30 *P. ramorum* infected trees as a preventative. The team is monitoring each tree's health.

Partnerships and Collaborations

UCCE is dedicated to the principle of service, and believes that an informed and educated citizenry is necessary for the continued development of our society. Our goal is to ensure that high quality, creative and integrated research and extension programs are established and conducted in Marin County. To accomplish this, we need the help and expertise of many other groups and organizations. Following is a list of some of the groups with whom we collaborated this past year to accomplish many of our jointly held goals.

Private Agencies, Businesses and Organizations

American Academy of Pediatrics
California Aquaculture Association
California Forest Pest Council
California Oak Mortality Task Force
Community Alliance with Family Farmers
Environmental Education Council of Marin
Hog Island Oyster Company
International Society of Arboriculture, Western Chapter
Marin Agricultural Land Trust
Marin Agricultural Education Alliance
Marin Art and Garden Center
Marin Community Foundation
Marin Conservation League
Marin County Farm Bureau
Marin Farmers Market
Marin Food Policy Council
Marin Food Systems Project
Marin Grape Growers Association
Marin ReLeaf
Marin Organic
Northbay Woolgrowers Association
Pacific Aquaculture Caucus
Pacific Coast Shellfish Growers Association
Pt. Reyes Lions Club
Richardson Bay Audubon Sanctuary
SEED
Slide Ranch
The Bay Institute
Tomaes Bay Agricultural Group
Tomaes Bay Oyster Company
Tomaes Bay Watershed Council
Western United Dairymen

Public Agencies and Organizations

California Department of Fish and Game
California Department of Food and Agriculture
California Department of Forestry and Fire Protection
California Department of Health Services
City of Novato
City of San Rafael
FireSafe Marin
Marin Agriculture Commissioner's Office
Marin County Libraries
Marin County Office of Education
Marin Municipal Water District
Marin County Resource Conservation District
Marin County Wildlife & Fisheries Committee
MCSTOPPP
National Marine Fisheries Service
National Wildlife Research Center
Natural Resources Conservation Service
North Marin Water District
Parks, Open Space and Cultural Services
Pt. Reyes National Seashore
Redwood Empire Small Business Development Center

Regional Water Quality Control Board
Tomaes Bay Shellfish TAC
UC Forest Products Lab
UC Small Farm Center
USDA Forest Service, Pacific Northwest Region

Schools (pre-school, elementary, high school, college)

Bahia Vista Elementary
Bodega Marine Laboratory, UC Davis
Brookside Upper and Lower Campus
College of Marin
Department of Agronomy and Range Science, UC Davis
Department of Community Development, UC Davis
Department of Conservation & Natural Resources, UC Berkeley
Department of Fish, Wildlife & Conservation Biology, UC Davis
Department of Forestry, UC Berkeley
Department of Plant Pathology, UC Davis
Department of Environmental Science Policy & Management, UC Berkeley
Dixie Elementary
Edna Maguire Elementary
Old Gallinas Children's Center
Hamilton Child Development Center
Hamilton Elementary
Lagunitas School District
Laurel Dell Elementary
Lu Sutton School
Marin Academic Center
Mary E. Silveira School
Miller Creek School
Novato Charter School
Novato High School
Novato Youth Center
Park Elementary
Ross Elementary
San Dominico
San Jose Middle School
San Pedro School
St. Isabella School
St. Marks School
Strawberry Pt. School
Tam Valley Elementary
Terra Linda High School
UC IHRM Program
UC Forest Products Lab
Vallicito School
Veterinary Medicine Teaching and Research Center, Tulare

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