

University of California Cooperative Extension



Annual Report ♦ Marin County

2003-2004

Staff



University of California Academic Advisors

Ellie Rilla

Director/Advisor, Marin

Pavel Svihra, Ph.D.

Environmental Horticulture

Jane Chin Young

4-H Youth Development

Cross County Advisors

Stephanie Larson

Livestock & Range Management

David Lewis

Watershed Management

Paul Olin, Ph.D.

Sea Grant Marine Advisor

Paul Vossen

Specialty Crops

UC Non-Academic Staff

Cindy Jensen

4-H Program Representative

Grant Funded Support Staff

Janice Alexander

Sudden Oak Death Regional Coordinator

Julie Carter

IPM Program

Frances Healey

Administrative Support

Elsa Latini

Food Stamp Nutrition Education Program

Steve Quirt

Organic & Sustainable Agriculture

Coordinator

Cathy Sinclair

School Gardens Program

Marin County Staff

Effie Cook

Secretary/Office Manager

Vickie Day

4-H Secretary

Master Gardener Program

Gael Paddack, *President*

Student Intern

Renee Grossi

Message from the Director

Ellie Rilla



Our Mission

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.

Our local mission in Marin includes working to sustain our agricultural community, protecting our unique environmental heritage, and helping communities shape wise public policy by strengthening community participation and leadership skills in our youth and adults. In Marin County we are also known as the Farm Advisor's Office.

Advisors and staff work with producers, industry representatives, resource agencies, and other interested community 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 and welfare

Urban Horticulture, with a special focus on:

- providing integrated pest management information and education to the landscape industry
- local coordination of Sudden Oak Death information
- 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

*UC Cooperative Extension
1682 Novato Blvd., Suite 150B
Novato, CA 94947
415.499.4204 (ph); 415.499.4209 (fx)
cemarin.ucdavis.edu*

Acknowledgements and Support

County Supervisors

Accomplishing our mission in Marin would not be possible without the strong and consistent support of the Marin County Board of Supervisors.

Susan Adams - 1st District
 Harold Brown - 2nd District
 Steve Kinsey - 4th District
 Charles McGlashan - 3rd District
 Cynthia Murray - 5th District

Awards

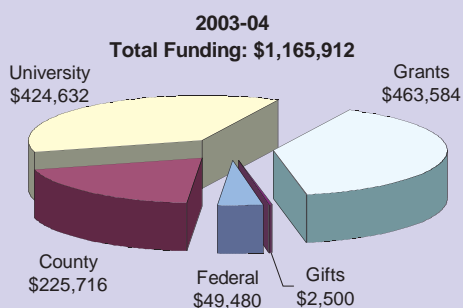
Our office received the 2003 Marin Economic Commission Award of Excellence for Agricultural Viability for our efforts to support



a viable county economy through encouraging product diversification and creating market and brand recognition for Marin producers.

Funding Sources

The University of California Cooperative Extension (UCCE) is a partnership between the University of California (UC), the County of Marin, and the United States Department of Agriculture (USDA). Each partner plays a key role in providing funding and support for Cooperative Extension (CE) programs in Marin County.



A special thank you to the second grade class of Bacich Elementary School for its Grown in Marin poster, featured on the cover.

Production Credits

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Volunteers

The 2003 Heart of Marin Volunteer Award went to two 4-H volunteers, Donald and Kathleen Seaman of Novato. Kathleen and Don provided 22 years of service to the VIP 4-H Club and Marin Guide Dogs for the Blind.



Master Gardener Al Stone was honored by the City of San Rafael for his work planning and designing the greenhouse restoration at Falkirk Mansion.

Grant Support

- \$18,100 Crop diversification program, Marin Community Foundation
- \$20,000 Dairy Nutrient Management Plans for Marin & Sonoma Producers, CF3 Funds from W. K. Kellogg Foundation
- \$31,269 Food Stamp Nutrition Education Program, USDA
- \$12,000 Grass-Fed Beef Nutrition Research & Website, CF3 grant from W. K. Kellogg Foundation
- \$50,000 Grown in Marin program, CE Heller Foundation
- \$8,875 Marin school gardens and IPM program, MCSTOPPP
- \$10,000 Olive Fruit Fly Control, CDFA
- \$10,000 Range Curriculum, RREA
- \$59,999 Restoration of native oysters in Tomales Bay, NOAA
- \$15,000 Riparian Revegetation Evaluation-Marin County Component
- \$65,000 Sudden Oak Death Regional Education, CA Dept. of Forestry
- \$19,200 Taking Charge of the Future, Marin Community Foundation
- \$34,000 Tomales Bay Water Quality Monitoring, California Sea Grant
- \$21,000 Tomales Bay Water Quality Project, Marin Community Foundation
- \$87,000 Watershed Assessment in Pt. Reyes National Seashore, Department of Interior, National Park Service
- \$6,000 Watershed Collaboration with 4-H & Bay Institute, USDA RREA
- \$6,640 Willis Evans Watershed Habitat Improvement Grant, Marin Municipal Water District

4-H Youth Development



Jane Chin Young and Cindy Jensen

Our 4-H Youth Development Program enrolled over 1,500 members through 11 community clubs, school embryology project groups, and the Food Stamp Nutrition Education

Program (FSNEP). We reached 4,000 more youths with educational 4-H exhibits at community events.

Club members participated in a variety of local club and county activities. Three West Marin clubs improved their neighborhoods' facilities and schools with a grant from the Marin Community Foundation. Two college student interns provided young adult mentoring for teen leaders teaching science literacy projects to younger members. These teen leaders will continue their environmental education projects through a new restoration project with the Bay Institute. We continue our leadership role with Farm Day by bringing together key agricultural and educational agencies for a free event that serves over 2,000 K-8 youths throughout Marin County.

Our work with the Marin County Children & Weight Coalition continues as we participate with the Marin County Peer Summit and the Healthy



Marin Pavilion of the Marin County Fair. The Coalition provides community education on healthier eating choices through interactive exhibits.

202 4-H leaders contributed 12,120 hours of volunteer service to Marin County youth, with, an equivalent value of \$266,640

Elsa Latini

Through the Food Stamp and Nutrition Education Program (FSNEP), I promote healthful eating patterns and physical activity for children and their families. This year I provided curricular training to 60 teachers along with classroom nutrition or garden activities to their 860 students. Research has found a clear connection between nutrition and learning: children have better attendance at



school, concentrate more on their lessons, and achieve improved performance and higher test scores if they are well nourished and healthy.

The age-appropriate UC curriculum integrates nutrition, health, plant science, and gardening. Studies have shown that one effective and enjoyable way to increase fruit and vegetable consumption is to involve children in vegetable gardening.

Watershed Management

David Lewis

Our project team completed work on the Tomales Bay Water Quality Project begun in 1999 with initial funding from the Marin Community Foundation. Our initial aim was to foster a cooperative community approach to resolving conflict in the Bay over water issues. We set out to quantify coliform and other nutrient loads to the Bay from agriculture practices, and what animal waste management practices could be modified to reduce pollution.



The 10 cooperators and many individuals from the Tomales Bay Watershed Council, the Marin Resource Conservation District (RCD), and the Tomales Bay Ag producer Group coalesced to make this project work.

\$1,067,500 in additional funding and support for this project was leveraged and all the cooperating dairies passed Regional Water Quality Control Board (RWQCB) regulatory inspection for water quality management.

In 2003, the San Francisco Bay Regional Water Quality Control Board presented certificates of recognition to 13 local dairies for their continued efforts in environmental stewardship. Half of these producers participated in our study area. In collaboration with the Marin RCD, we've obtained \$710,000 to implement water quality practices. Practices include exclusionary fencing, repositioning of feeding troughs, vegetative buffers, and changes in animal distribution.

Michael Lennox, Watershed Research Assistant, has continued our in-depth study of projects to revegetate area streams and rivers. He has surveyed 80 sites, including 18 in Marin County. Results document both beneficial outcomes such as increased shade and plant diversity and the negative outcomes such as increased weed and invasive plant species. We are sharing these results with local practitioners and land managers to provide direction on the installation and maintenance of these projects.

Paul Olin

The native oyster restoration status project in Tomales Bay is now in its third year. This past year, we sampled oysters throughout the

Bay with UC Davis Ecologist Ted Grosholz and his graduate student David Kimbro, and we are developing a good picture of where and when oysters recruit.

Park Hydrologist Brannon Ketchum and I received funds to conduct a coastal waters and watershed assessment in Pt. Reyes National Seashore. This phase of the project will gather already existing data and look for gaps in current information that might lead to additional research and monitoring to build a better understanding of our coastal aquatic resources.



Environmental Horticulture

Pavel Svihra

It's with mixed feelings that I announce my retirement as Horticulture Advisor in Marin and Sonoma counties effective January 28, 2005, my 66th birthday. This past year has been filled with research work related to Sudden Oak Death. I also organized workshops on IPM. Though I am officially retiring on February 1st, I will be around in an "Emeritus" capacity wrapping up research and working on publications, and helping our Master Gardeners solve local horticultural problems.



Paul Vossen

I conducted a pruning demonstration at the Gale Ranch in the early spring. Ten people were there to discuss growing methods for organically produced apples and to observe the details of apple tree pruning. The Gales' apple ranch is an example of a ranch that produces a specialty small-scale farm-produced item.

In April, organic & sustainable agriculture coordinator Steve Quirt and I presented an Olive Oil workshop at the McEvoy Ranch, which was attended by 45 people who were interested



in growing olives for oil locally. The workshop included a tour of the facility, pruning demonstration, discussion of McEvoy Ranch's organic production methods, and an oil tasting.

I led the California olive oil taste panel through several training tastings at the Frantoio Restaurant in Mill Valley to help them maintain their status as an internationally recognized taste panel by the International Olive Oil Council in Madrid, Spain. The taste panel works independently to certify California olive oils as meeting the international standard for classification as "extra virgin."

I conducted olive fruit fly research all summer at McEvoy Ranch and at several other locations in coastal climates to evaluate different organic control methods. These evaluations have helped several olive growers produce fruit that is virtually pest free and use methods that do not harm the environment or leave any toxic residues in the olive oil.

UCCE Master Gardeners

This last July, we mailed a questionnaire to 281 Marin households who had used the services of our UC master gardener desk in the past year. The names were randomly selected from

our log and specimen records. We wanted to evaluate our current customer service and look for ways to improve it. A total

of 174 Marin residents returned their form for a response rate of 62%. Respondents reported that 97% of them received the information and services they wanted and 97% said they would recommend

our services to their neighbors and friends. We also got high marks for our printed materials,

personal service, and office accessibility.

Comments ranged from "very well informed and genuinely friendly" to "valuable resource for Marin, specific to our conditions."

We also signed an "MOU" with the Marin Art & Garden Center to work more closely sharing resources and horticultural expertise. Master Gardener volunteers provided educational expertise and materials to school gardens at 31 Marin schools and with 2,890 school children and 182 teachers.



210 master gardeners provided over 13,415 hours of educational contacts, valued at \$295,130 to Marin County.

Livestock and Range Management



Stephanie Larson

This was a momentous year for grass-fed livestock efforts in Marin County. With the support of the Marin Board of Supervisors, and working closely with the Marin Agricultural Commissioners Office and local

livestock producers, we created the first ever grass-fed livestock ordinance certification program. Our Marin livestock producer working group, a UC Davis economist, and I worked to develop a Grass-fed Beef Cost Study (see *Publications & Links*).

Through all of these activities, we've already seen results! Several livestock producers have begun looking at different marketing options to improve the viability of their operations. These include producing and selling grass-fed beef and certifying 2,500 acres of pasture land for organic production.



I received a grant to research and compile a scientific review of the literature available on grass-fed beef, including nutrition, with Dr. Cindy Daily at California State University, Chico. A website was created which provides producers and

consumers with a place to access all the current information about this product. I also received a grant to develop protocol for nutrient management budgeting for Marin and Sonoma County dairies. Dayna Ghirardelli and Dennis Salisbury were hired to assist with cooperating dairies in both Marin and Sonoma Counties.

I continue to work with the Point Reyes Seashore Ranchers Association

(PRsRA) to improve ranch viability and communication between park personnel and the general public.

***"The work of UCCE has made more advances in five years than I've seen in 25 years of regulatory paperwork. They find the problems scientifically, research solutions scientifically."* - Dairies, water quality, and environmental regulation survey, Center for Collaborative Policy, CSU Sacramento**

Organic and Sustainable Agriculture

Steve Quirt

Our program was filled with success stories this last year. With agency partners and participating producers, we were able to: increase organic acreage from 1,781 acres to 5,200, implement a grass-fed livestock ordinance with the Agricultural Commissioner's Office, present workshops, produce newsletters, build and enrich our *Grown in Marin* website, and serve the greater agricultural community.

Our year of programs was rich and rewarding. We gave five comprehensive workshops on Seed Saving, On-Farm Composting, Organic Olive Production, Cover Crops, and Indigenous Micro-organism Cultivation. The satisfaction rate for our workshops ran a whopping 87%! Farmers tell us that these "Grown in Marin" talks and demonstrations have become an integral part of their continuing education. Our newsletter and website,

Grown in Marin, continue to be unifying tools for reaching all segments of the Marin agricultural community. Six issues a year

are produced in-house with the help of Frances Healey, who handles production, and Elsa Latini, who gets the 500 pieces out the door and into farmers' mailboxes.

Our relationship with the agricultural producers remain an important and rewarding part of our work. Cooperative Extension fulfills its mandate to reach out and share the valuable knowledge of the University with our farmers and ranchers, who in turn, provide us with such high quality food!



"I used your site for research and information for my second grade class at Laurel Dell School in San Rafael. We are preparing for our farm field trip through MALT. We love the pictures!" - Lisa Hanley, Laurel Dell School



Sudden Oak Death



Janice Alexander

This past year, I tried to put together a comprehensive slate of outreach materials and presentations on Sudden Oak Death (SOD). One very useful result has been a series of guides for groups affected by SOD - homeowners, arborists, recreational visitors, etc. - that detail symptoms and impacts and how they can minimize the spread of the pathogen through simple sanitation practices (see www.suddenoakdeath.org). I also worked closely with the 14 infested counties to get them an easy-to-use desk reference, our "Sudden Oak Death Information Binder." These efforts and others have given us a wide library of tools for our outreach efforts, which have been met with enthusiasm and praise (e.g., a Conservation Award for a SOD exhibit at the Piedmont Garden Show). Out on the ground, I met with over 900

"Thank you very much for showing me around the sites in California affected by Sudden Oak Death. Seeing the effects of the disease firsthand has been of enormous benefit in informing the decisions I am making to control the disease in England." - Ben Bradshaw, Minister for Nature Conservation & Fisheries, United Kingdom

people from a variety of small groups and organized larger training sessions for hundreds of professionals. In a new role for me, I acted as Tribal Liaison and assisted with outreach efforts to local tribal

nations, including a workshop for traditional plant gatherers with the North Coast RC&D. Finally, I've been able to get out in the forest myself, through research projects in our infested forestlands, including a study of survey methodology in cooperation with the USDA-Forest Service and California Department of Forestry and Fire Protection.



2003-04 Conferences, Workshops, & Tours

Most of the following workshops or events were co-sponsored by one or more of our collaborators listed on the back page.

- Dairy Day, Rohnert Park
- Farm Day, Marin Civic Center
- Garden Education Program at Marin Art & Garden Center
- Grass-Fed Beef Workshop, Pt. Reyes
- *Grown in Marin* Field Days on Cut Flower Production, Adding Value, Indigenous Microorganisms, Cover Crops and Soil Fertility, Olive Day, On-Farm Composting, Pt. Reyes
- IPM in the Winter, San Rafael
- Marin Economic Commission Field Tour, West Marin
- Marin Master Gardener Training, Ross
- Master Gardener Library Series, Novato, Mill Valley, San Rafael, Tiburon, Corte Madera, Fairfax
- Novato Organic School Lunch Event
- Oyster Restoration Field Day, Marshall
- Philip Morris Agricultural Diversification Tour, West Marin
- Riparian Resources Workshop, Walker Creek Ranch
- SOD Sampling & Analysis for Landscape Professionals, China Camp State Park
- Sudden Oak Death Workshop for Tribal Members, Santa Rosa
- Summer Ag Institute for Teachers, Nicasio School
- Tailoring Risk Management to Fit Your Farm and Ranch Workshop, Petaluma
- Water Quality Workshop, Pt. Reyes

Total attendees: 3,282

Publications & Links

For local program information visit
<http://cemarin.ucdavis.edu>

Information about Cooperative Extension statewide is available at www.ucanr.org

For more information visit:

Sudden Oak Death: www.suddenoakdeath.org

Grown in Marin: www.growninmarin.org

Grass-fed Educational Website:
<http://www.csuchico.edu/agr/grsfdbef/>

Grass-fed Beef Cost Study:
<http://www.agecon.ucdavis.edu/outreach/crop/cost-studies/BeefGFNC2004.pdf>

Cooperators

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.

Alcanza Even Start Program	Larkspur Farmers' Market	Novato Charter School
American Academy of Pediatrics	Laurel Dell Elementary School	Novato Children's Center
Bacich Elementary School	Lu Sutton School	Novato Enrichment Care
Bahia Vista Elementary School	Lynwood Elementary School	Novato Youth Center
Bayside Elementary School	Manzanita Child Care Development Center	Old Gallinas Children's Center
Bodega Marine Laboratory, UC Davis	Marin Academic Center	Pacific Aquaculture Caucus
Bolinas-Stinson Resource Recovery Project	Marin Agricultural Education Alliance	Pacific Coast Shellfish Growers Association
Brookside School - Upper and Lower Campuses	Marin Agricultural Land Trust	Park Elementary School
California Aquaculture Association	Marin Art & Garden Center	Pickleweed State Preschool
California Coastal Conservancy	Marin Center	Pt. Reyes Lions Club
California Department of Fish & Game	Marin Community Child Development	Pt. Reyes National Seashore
California Department of Food & Agriculture	Marin Community Foundation	Redwood Empire Small Business Development Center
California Department of Forestry & Fire Protection	Marin Conservation League	Regional Water Quality Control Board
California Department of Health Services	Marin County Agricultural Commissioner's Office	Richardson Bay Audubon Sanctuary
California Forest Pest Council	Marin County Dept. of Health & Human Services - Nutrition and Wellness Program-	Ross Elementary School
California Oak Mortality Task Force	Marin County Farm Bureau	San Domenico School
Canal Childcare Center	Marin County IPM Commission	San Jose Middle School
City of Novato	Marin County Libraries	San Pedro School
City of San Rafael	Marin County Office of Education	Sausalito Farmers' Market
College of Marin	Marin County Parks, Open Space & Cultural Services	SEED
Community Alliance with Family Farmers	Marin County Wildlife & Fisheries Committee	Slide Ranch
Department of Agronomy & Range Science, UC Davis	Marin Farmers' Market	St. Isabella School
Corte Madera Farmers' Market	Marin Food Policy Council	Saint Mark's School
Department of Community Development, UC Davis	Marin Food Systems Project	Strawberry Point School
Department of Conservation & Natural Resources, UC Berkeley	Marin Grape Growers Association	Sun Valley Elementary School
Department of Environmental Science, Policy & Management, UC Berkeley	Marin Learning Center	Tamalpais Valley Elementary School
Department of Fish, Wildlife & Conservation Biology, UC Davis	Marin Municipal Water District	The Bay Institute
Department of Forestry, UC Berkeley	Marin Organic	Tomales Bay Agricultural Group
Department of Plant Pathology, UC Davis	Marin ReLeaf	Tomales Bay Oyster Company
Dixie Elementary School	Marin Resource Conservation District	Tomales Bay Shellfish TAC
Edna Maguire Elementary School	Mary E. Silveira School	Tomales Bay Watershed Council
Environmental Education Council of Marin	McEvoy Ranch	UC Forest Products Lab
Fairfax/San Anselmo Children's Center	MCSTOPPP	UC IHRM Program
Gallinas Elementary School	Miller Creek Middle School	UC Sea Grant Program
Hamilton Child Development Center	National Marine Fisheries Service	UC Small Farm Center
Hamilton Elementary School	National Park Service	USDA Forest Service
Hog Island Oyster Company	National Wildlife Research Center	USDA Risk Management Agency
International Society of Arboriculture, Western Chapter	Natural Resources Conservation Service	Vallecito Elementary School
Lagunitas School District	North Bay Dairy Women	Veterinary Medicine Teaching and Research Center, Tulare
	North Coast Resource Conservation & Development Council	Walker Creek Ranch
	North Marin Water District	West Marin Chamber of Commerce
	Northbay Woolgrowers Association	Western United Dairymen



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