University of California Cooperative Extension Santa Cruz County

PROGRAM REPORT: 2008-2010

















OUR PROGRAMS

AGRICULTURAL RESOURCES SUPPORT AND STRENGTHEN THE AGRICULTURAL INDUSTRY



Programs include research and education in integrated pest management and invasive species, farm profitability, sustainability, marketing, regulatory pressures, and pressures at the agricultural-urban interface.

NATURAL RESOURCES PROTECT, CONSERVE, AND ENCOURAGE THE WISE USE OF NATURAL RESOURCES

Programs include research and education in marine fisheries and protected areas, landsea linkages, farm water quality; water quality and the Monterey Bay National Marine Sanctuary, and Sudden Oak Death.



HUMAN RESOURCES EDUCATE AND SUPPORT THE HEALTHY DEVELOPMENT OF YOUTH AND FAMILIES

Programs include research and education in science, engineering, and technology to help youth develop leadership, citizenship, and life skills, access to quality afterschool educational programs and childcare, high-risk behaviors in youth, and nutrition education.

ADVISOR STAFF

SANTA CRUZ COUNTY ADVISORS

Mark Bolda

Strawberry & Caneberry Farm Advisor

Caroline Pomeroy

Marine Fisheries/Sea Grant Advisor

Richard Starr

Marine Biology/Sea Grant Advisor

Lynn Schmitt-McQuitty

Youth Development Advisor

Steve Tjosvold

Environmental Horticulture Farm Advisor

Laura Tourte

Farm Management Advisor

CROSS COUNTY ADVISORS

Aziz Baameur

Small Farms Advisor

Larry Bettiga

Viticulture Farm Advisor

Jianlong Bi

Entomology Farm Advisor

Michael Cahn

Irrigation & Water Resources Advisor

William Coates

Pomology Farm Advisor

Steve Koike

Plant Pathology Farm Advisor

Richard Smith

Vegetable & Weed Science Farm Advisor

RESEARCH SUPPORT STAFF

David Chambers

Research Associate

Neal Murray

Research Associate

Stephanie Fontana

4-H Program Representative

Monise Sheehan

Research Associate

COUNTY STAFF

Robin Friedman

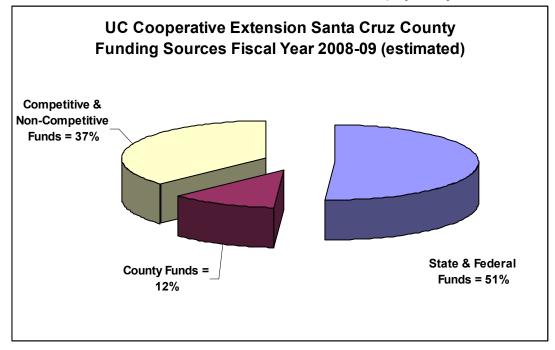
Clerk

Teresa Garbini

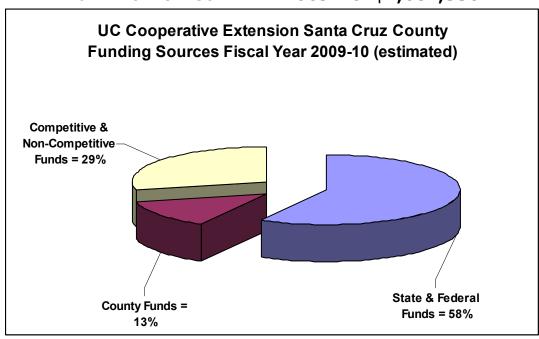
Division Secretary

UC COOPERATIVE EXTENSION SANTA CRUZ COUNTY FUNDING

TOTAL FUNDS FISCAL YEAR 2008-09: \$1,981,362



Total Funds Fiscal Year 2009-10: \$1,681,330



UC COOPERATIVE EXTENSION SANTA CRUZ COUNTY PROGRAM AREA & ADVISOR HIGHLIGHTS

AGRICULTURAL RESOURCES

Steve Tjosvold, Environmental Horticulture Farm Advisor

- Sudden Oak Death. Research, information, and outreach for diseases caused by *Phytophthora ramorum* that affect Santa Cruz County woodlands and nurseries.
- Light Brown Apple Moth. Research, information, and outreach to commercial nurseries, government and other agency partners, and the public.
- Master Gardeners. Research-based education and outreach to the public in reducing pesticides, water, and fertilizer use in gardens and home landscaping. Over 100 adult volunteers participate in this program. Please see additional information below.

Mark Bolda, Strawberry and Caneberry Farm Advisor

- Alternatives to Methyl Bromide. Research and outreach on non-chemical fumigant alternatives, including anaerobic soil disinfestation, raised bed trough systems using sterile media, and biofumigation using cole crops.
- Light Brown Apple Moth. Research and outreach to area berry growers on mating disruption techniques to reduce and manage this pest.
- Spotted Wing Drosophila. Research and outreach to area berry growers on management techniques, including field sanitation and organically acceptable strategies.
- Berry varieties and production techniques. Research and outreach on caneberry and blueberry varieties including production, quality, and marketing.

Laura Tourte, Farm Management Advisor

- The Farm Business and Market Place website. Designed and developed website
 to provide Central Coast farmers with a 'one stop' place to easily access a wide
 variety business and marketing information. Website address:
 http://ucce.ucdavis.edu/farmbusinessandmarketplace
- Alternative Weed Management. Research and outreach on alternative weed management strategies, including robotics, herbicide use reduction, and their effect on economics for area vegetable crops.
- Research and educational workshops on costs of production, record keeping and farm management, especially for small, beginning and limited resource farmers.

UC COOPERATIVE EXTENSION SANTA CRUZ COUNTY PROGRAM AREA & ADVISOR HIGHLIGHTS

NATURAL RESOURCES

Richard Starr, Marine Biology/Sea Grant Advisor

- Collaborative Research. Projects with charter boat skippers and recreational fishing clubs with the goal of improving fish assessment techniques, and learning about populations, movements, and mortality of area marine fishes.
- Marine Protected Areas (MPAs). Research of deep portions of the new MPAs to evaluate deep-water fish and invertebrate communities in Central California. Developed and distributed booklet to describe habitats and fishes.
- Marine Fisheries Management. Workshops with scientists, resource managers, environmental organizations and fishermen to help understand and improve fisheries management in California.

Caroline Pomeroy, Marine Fisheries/Sea Grant Advisor

- Santa Cruz Wharf Recreational Fishery Project. Characterize wharf anglers, seafood consumption, environmental conditions and toxin patterns and concentrations to encourage safe seafood consumption. Partnered with UCSC to train 31 student interns to assist with data collection.
- Santa Cruz Harbor Commercial Fishing Community Profile. Social science research to provide a history and description of the harbor, commercial fisheries, and the fishing community to enhance decision-making for stakeholders at the local, regional and statewide levels.
- Sustaining Fishery Systems. Provide science-based information to raise awareness of community leaders and the general public about commercial fisheries, and support informed policy and personal decisions to help sustain natural resources and the viability of communities that depend on those resources.



UC COOPERATIVE EXTENSION SANTA CRUZ COUNTY PROGRAM AREA & ADVISOR HIGHLIGHTS

HUMAN RESOURCES

Lynn Schmitt-McQuitty, 4-H Youth Development Advisor

- Initiative to Increase Science Literacy in Natural Resources, Agriculture and Nutrition. Projects include:
 - 4-H Science, Engineering and Technology (SET) initiative, which brings curricula, education, and training to Santa Cruz County through programs such as Forensic Science, Robotics, The Power of Wind, and Tools of the Trade: Inspiring Young Minds to be SET Ready for Life.
 - Professional Development Training of science related curricula for area professionals, including Watsonville Parks and Cultural Services, and the Campus Kids Connection staff.
- 4-H Club Program. Volunteer program for County youth to build life and citizenship skills. Over 200 youth and 100 adults participate in various programs and projects. Projects include those in aerospace and rocketry, animal husbandry, creative arts, and outdoor activities.



Kathleen Nolan, Cross County Nutrition Education Coordinator

 Collaborated with Network garden educator to bring comprehensive nutrition education (from story book to planting bed) to low-income students in Santa Cruz County.

UC COOPERATIVE EXTENSION SANTA CRUZ COUNTY CROSS COUNTY ADVISOR PROGRAM HIGHLIGHTS

AGRICULTURAL RESOURCES

Larry Bettiga, Viticulture Farm Advisor

- Vineyard Floor Management. Research alternative management practices to address environmental concerns such as soil erosion and water quality.
- Vineyard Quality and Productivity. Research and evaluate vineyard diseases and control practices, and cultivar selection to improve productivity and quality of wine grapes.

Jian Bi, Entomology Farm Advisor

- Pest Management Alternatives. Research and outreach to evaluate new pest management tools to prevent crop losses as well as reduce chemicals in the environment.
- Invasive Species. Research and outreach on invasive species including Light Brown Apple Moth and Spotted Wing Drosophila.

Michael Cahn, Irrigation and Water Resources Farm Advisor

- Water Quality. Research and evaluate practices to enhance water quality including use of polyacrylomide (PAM) to reduce sediment and nutrient concentrations in agricultural runoff.
- Irrigation Efficiency. Research and outreach to improve water use efficiency and agricultural runoff.

Steve Koike, Plant Pathology Farm Advisor

- Identification of New Pathogens. Research and work with area vegetable and berry farmers to identify and help manage new pathogens and diseases causing crop losses for area growers.
- Research and education on E. coli and survival in area soils.

Richard Smith, Vegetable and Weed Science Farm Advisor

- Water Quality and Fertilizer Use. Research and education on low residue cover crops, sediment losses, storm water runoff and monitoring of soil nitrates to provide best management practices for area growers.
- Weed Management Alternatives. Evaluation of weed control options for minor crops such as cilantro, leeks, beets and spinach.

VOLUNTEER PROGRAMS

ESTIMATED VALUE OF PROJECTS & COMMUNITY SERVICE

| PROGRAM | FY 2008-09 | FY 2009-10* |
|---|------------|-------------|
| Master Gardeners Project/Community Service Hours | 8,212 | 8,000 |
| 4-H Youth Development Club Program Project/Community Service Hours (Adults) | 270 | 270 |
| Estimated Value of Community Service (\$)** | \$171,760 | \$167,467 |

^{*} Estimated hours through June 2010.

^{**} Estimated by total number of adult volunteer hours x \$20.25 per hour (Independent Sector: Value of Volunteer Time, 2008 National Average).



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