

**Agronomy Advisor
Colusa, Sutter, and Yuba Counties**

Position Description: The general disciplinary focus of the CE Agronomy Advisor will be plant sciences and include optimizing agronomic field and row crop systems, while maximizing net farm income, conserving natural resources, and safeguarding the environment. Primary emphasis will be on forage crops, wheat, safflower, tomatoes, dry beans, corn, and hybrid seed crops. Focus of work will be on soil, water, plant nutrition, improved varieties, pest management (weeds, insects, and diseases), marketing, and economics. The candidate is expected to have a minimum of a Master's Degree in Plant Sciences, Agronomy, Pest Management or other closely related discipline and to have demonstrated excellence in the areas of applied agricultural research and extension. UCCE Sutter/Yuba and Colusa are the proposed supporting units for this position.

Justification: Field (excluding rice), row and seed crops have a total value of nearly \$250 million for the three county area (2010 Agricultural Commissioner crop reports). The area has a diverse mix of field, vegetable and hybrid seed crop production systems that are integral to the economic sustainability of the rural communities served by the proposed position. Currently, there are no CE Agronomy Advisors serving the needs of this clientele in these counties. This position would fill a large void left by the retirements of Advisors Schmierer (agronomic crops) and Murray (vegetable and seed crops) in 2011 and the transfer of Advisor Cahn approximately 10 years ago. Many family-owned farms in these counties depend on the University of California for information on sustainable crop production. The current method of trying to get by with assistance from neighboring Advisors is not sustainable and is putting the reputation and local support of Cooperative Extension in jeopardy. This position would fill the currently unmet needs for research and outreach in field, row and seed crop production for local communities.

The critical issues addressed by this position include nutrient management efficiency; integrated pest management, including evolving endemic pests, introduced pests and increasing weed resistance to herbicides; water management relative to crop production, sustainable farming practices, water quality and conservation; rising production costs; integrating technology into production practices; and increasing agricultural/urban interface issues. The CE Agronomy Advisor will address these critical issues in an integrated approach that balances the needs of California agriculture with those of resource conservation and environmental protection.

The likelihood of significant outcomes and impacts resulting from the leadership of this position are high as indicated by past successes resulting from UC efforts to address critical issues related to field, row and seed crops in these counties. For example, UC efforts in this area were instrumental in expansion and efficiency improvements in the processing tomato industry, development of sustainable pest management programs for various crops, and identifying newly introduced pests. In addition, strong local support in this area has been demonstrated for UCCE research and extension programs to meet the needs of this clientele.

The CE Agronomy Advisor will provide essential leadership to address critical issues facing field, row and seed cropping systems in the three counties. The Advisor will be an essential link between university research and education units to facilitate collaboration and teamwork. The

main goal of facilitating these partnerships will be to develop and deliver effective local applied research and extension programs that address critical needs, have statewide impact, and inform policy decisions. The Advisor will identify and consider the needs of all relevant major clientele groups in the planning, development and execution of applied research and education programs. In this capacity, the Advisor will consult with local clientele, university academics, commodity groups (Dry Bean Advisory Board, Wheat Growers Association, Processing Tomato Advisory Board, etc.), seed companies (Seminis, Monsanto, Pioneer, Sakata, etc.), agricultural industries, consumers, policy makers, environmental agencies, and public agencies to prioritize and address critical issues related to crop production.

Extension: The CE Agronomy Advisor will provide local leadership for planning and coordination of extension education and implementation of research-based practices and technology to field, row and seed crop clientele in Colusa, Sutter and Yuba Counties. In addition, the Advisor will collaborate with other academics to contribute to appropriate statewide extension activities. The Advisor will also facilitate collaborative activities among appropriate county-based and campus-based academics. Expected extension activities will include planning and participation in collaborative educational activities and presentation of relevant research-based material at grower meetings, industry meetings, workshops, short courses, field demonstrations and other educational programs independently and/or in conjunction with other UC academics. The Advisor will be expected to contribute to educational materials such as publications, newsletters, appropriate UC websites, and other relevant social and print media to extend information on field, row and seed crop production and related issues. The Advisor will also serve as a key resource of science-based information for field, row and seed crop related industry groups, the public, public agencies and policy makers.

Key clientele include growers, farm managers, pest control advisers, allied industries, commodity groups, seed companies, irrigation districts, conservation/environmental groups, public agencies, and consumers.

Research: The CE Agronomy Advisor will provide local leadership for planning, coordinating and conducting applied research activities related to field, row and seed crops in Colusa, Sutter and Yuba Counties for the University of California. Stimulating interdisciplinary collaboration and active participation in appropriate UC ANR Program Teams and Workgroups will be an essential role for this position. The issues to be addressed by this position may include changes in crop production systems management, integrated pest management, nutrient efficiency, water quality and water use efficiency, and other issues related to production of field, row and seed crops.

Research results will be disseminated through a variety of publication outlets including those for clientele as well as academic colleagues. Publications may include county CE newsletters, internet websites and blogs, technical reports to commodity boards/funding agencies, UCD Agronomy Progress Reports, newspapers, trade magazines, California Agriculture, ANR peer-reviewed publications, Professional Society Proceedings, and appropriate peer-reviewed scientific journals.

ANR Continuum: The CE Agronomy Advisor position will be supported by numerous UC assets that currently conduct field, row and seed crop related research and education programs in California. The Advisor will be expected to work as an integral team member with others to address critical research and outreach priorities that have statewide impact. Collaborative partnerships would be formed with other UCCE Advisors, campus-based UC AES and CE faculty in the plant sciences and other discipline related departments, UC-affiliated USDA scientists, Statewide UC-IPM, UC Agricultural Sustainability Institute, as well as others. Disciplinary collaborations may include plant nutrition, plant physiology, soil science, irrigation and water resources, environmental toxicology, wildlife biology, agricultural engineering, economics, plant pathology, entomology, nematology, vertebrate pest management, nutrition, and others.

This position would integrate into current UC Workgroups including Grain Legume, Tomato, Alfalfa, and Small Grains to identify opportunities and develop collaborative projects to meet clientele and UC needs. Expected collaborators include UCCE Advisors, Long, Miyao, Brittan, Roncoroni and Munier; and UCCE Specialists and AES faculty Putnam (Forages), Davis (Plant Pathology), Godfrey (Entomology), Lanini (Weeds), Pettygrove (Soils), and Dubcovsky (Wheat). In addition, the Advisor would be expected to continue long-term cooperative programs to evaluate varieties and advanced experimental lines; and facilitate the introduction of new varieties and crops through a series of statewide trials conducted in collaboration with other academics (examples include processing tomatoes and wheat).

The generally acknowledged gap in this network of research and extension efforts is a dwindling capacity to meet the needs of field, row and seed crop clientele in the Sacramento Valley and a complete lack of program delivery in Colusa, Sutter, and Yuba Counties. In addition to the aforementioned retirements of Advisors Schmierer and Murray in 2011 and the transfer of Cahn, anticipated retirements in the next few years of two neighboring Advisors working in this programmatic area will be devastating to the ability of UC to meet clientele needs in the Northern Sacramento Valley region. There is an urgent need to build capacity and bring in new academic personnel to take advantage of mentoring opportunities before all institutional memory is lost.

Support: UCCE Sutter/Yuba and Colusa will provide office space, administrative support, transportation, office supplies, IT support services, internet access, and telephone access.

Other support: The CE Agronomy Advisor will compete for research and extension support grants from the Dry Bean Advisory Board, the Wheat Growers Association, the Processing Tomato Advisory Board, and the Seed Production Industry (Seminis, Monsanto, Pioneer, Sakata, etc.). In addition, funding for research and extension activities may be secured for appropriate projects from funding agencies such as USDA-AFRI, CDFA-FREP, DWR, DPR, Western SARE and EPA.

Location: The CE Agronomy Advisor position will have responsibilities for Colusa, Sutter, and Yuba Counties. UCCE Sutter/Yuba and Colusa are the proposed supporting units. As these units are currently moving towards a multi-county partnership, headquarters location is to be determined.