

Position Title: Rice Farming Systems Area Advisor - Colusa and Yolo Counties

Position: The Rice Farming Systems Area Advisor in Colusa and Yolo Counties will focus on the agronomic, water management, pest management, post-harvest, or other closely related fields of rice farming systems in Colusa and Yolo counties. The candidate is expected to have a minimum of a Master's Degree in plant sciences, agronomy, pest management, water management or other closely related discipline and excellent written and oral communication skills. Demonstrated ability in the areas of applied agricultural research and extension are desirable. The Advisor will be headquartered in Colusa County and administratively responsible to the Colusa County Director. The Advisor will develop a program as part of the UC ANR/CAES Rice Team and be mentored by that well established and supported group. In addition, the Advisor will be encouraged to develop a program within the California Institute for Water Resources.

Justification: A significant programmatic gap exists in the closely related disciplines of rice and water management in the Southwestern region of the Sacramento Valley. Rice production is a significant component of the economies of Colusa and Yolo Counties. Water management within rice production, particularly as it relates to water use, availability, and policy is critical to the health, wellbeing and economic prosperity of the people of California and the natural resources of the state. Critical issues in rice production and water management/policy to be addressed by the Advisor will support the UC ANR Public Value Statements of promoting economic prosperity, and protecting natural resources.

In California, rice is grown on approximately half a million acres, mostly in the Sacramento Valley, including roughly 180,000 acres in Colusa and Yolo Counties. Rice is the number two and four crop commodity by farm gate income in the most recent data from Colusa (\$286 M) and Yolo (\$52 M) Counties, respectively. Significant multiplier effects from rice dryers/processing facilities and farm equipment and input dealers provide further economic prosperity to the regional economy.

The Advisor will operate at an important interface between the agriculture and natural ecosystems, specifically with regard to water management. Land used for rice production also serves as wildlife habitat, and flood water diversion. The rice production zone is located in the heart of the state's largest watershed and co-occupies an area that is crucial to overwintering migratory waterfowl along the Pacific Flyway. Three National Wildlife Refuges are located all or partially in Colusa County and all are adjacent to rice production.

This position offers an excellent opportunity for a successful career. The Advisor will be well supported by the California rice industry, which is highly supportive of UCCE and has demonstrated capacity to adopt practices developed by UCCE to address production and environmental challenges. The potential for the advisor to engage in research areas with significant outcomes and measurable impacts is high. Additionally, the advisor would be expected to engage in the Rice Technical Working Group, a consortium of US rice researchers, that provides a platform for multi-state collaborative projects. Finally, given that rice is a major food source worldwide, there is abundant opportunity to develop international contacts and engage in research that delivers measurable results to the greater global community, as suggested by the UC Global Food Initiative.

This position will ease the work load and improve the retention potential of the two existing rice advisors in the Sacramento Valley: Brim-DeForest in Sutter, Yuba, Sacramento and Placer counties and Espino in Butte and Glenn counties. Both these advisors are also County Directors in large offices. With this position filled, each rice advisor would cover roughly a third of the rice acreage in the Sacramento Valley – approximately 180,000 acres for each advisor.

Extension: Expected extension activities will include planning and participation in collaborative education activities and presentation of relevant research-based material at grower meetings, industry meetings, workshops, short courses, field demonstrations and other educational programs independently 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 rice production and related issues. The advisor will also serve as a key resource of science-based information for rice related industry groups, public agencies, policy makers, and the general public. The UC Rice team's collective expertise is regularly sought by numerous agencies including the US Environmental Protection Agency, US Food & Drug Administration, CA Environmental Protection Agency, CA Department of Water Resources, CA Department of Pesticide Regulation, CA Air Resources Board, CA Rice Commission, CA Rice Research Foundation, USA Rice Federation, and the Environmental Defense Fund.

Research: The proposed position is expected to be familiar with all aspects of California rice farming systems and actively conduct research in select areas based on a needs assessment. The issues to be addressed may include water usage/movement in the region, water policy as it affects rice production, groundwater recharge and regulation, integrated pest management, herbicide-resistant weed management, relationship between environmental services and productivity,

post-harvest grain management, and sustainable farming practices. The biologically complex nature of and public interest in the California rice farming system provides a unique opportunity to conduct a high impact research and education program. UCCE is exceptionally well positioned to constructively participate in initiatives that will affect the long-term sustainability of this highly engaged, \$2 billion industry. 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 or funding agencies, UC Davis Agronomy Progress Reports, newspapers, trade magazines, California Agriculture, ANR peer-reviewed publications, professional society proceedings, and appropriate peer-reviewed scientific journals.

ANR Network: The advisor will be expected to collaborate with the UC ANR academics that constitute the Rice Workgroup. These include two rice farm advisors in northern California (Espino and Brim-DeForest), one agronomy advisor in the San Joaquin Valley (Leinfelder-Miles), and several specialists covering rice agronomics and fertility (Linguist), weeds (Al-Khatib), insects (Grettenberger), and phytopathology (Swett) along with numerous AES faculty. Knowledge gaps in this network are in the areas of agronomy, water/irrigation management, plant pathology, crop physiology, and post-harvest grain management. Ideally, the new advisor will fill one or more of these knowledge gaps with a preferred focus on water management. The UC Rice Workgroup is a dynamic and productive group of UC academics whose success is built upon a history of strong collaboration, the results of which have a documented impact from the local to the international levels. The new advisor is expected to actively and intellectually contribute to that ongoing success. The advisor will also be expected to join other ANR workgroups related to the advisor's expertise, the Agronomic Crops Program Team and the Water Management Program Team.

Network External to ANR: The California Rice Experiment Station (RES) is located in Richvale, a 40 minute drive from Colusa. The RES and UCCE have a long history of collaboration in testing new varieties and developing sound agronomic practices, and the advisor will be expected to continue this relationship along with other UC Rice Work Group members. The advisor will also be expected to collaborate with the California Rice Commission, an organization representing all rice growers dealing mostly with regulatory and environmental issues, providing technical input when needed to better address issues. Members of the Rice Workgroup receive strong financial support from the rice industry. For example, the California Rice Research Board (RRB) provides about a million dollars a year to support UC research. This substantial, ongoing funding stream enhances the probability of success for the new advisor. Moreover, the RRB recently established an endowment in ANR to support UCCE's work on rice related issues.

Support: UCCE Colusa County has the space and resources to support this position and will provide transportation (vehicle, maintenance and fuel), office space, supplies and equipment, administrative support, and IT services. Yolo County will provide meeting room space as well as meeting support including clerical assistance, copies, etc. for programs put on in that county and will provide mileage reimbursement for farm calls and meeting travel to Yolo County.

Other Support: The rice advisor will compete for research and extension support grants from the RRB and other funding agencies such as CDFA, DPR, EPA, USDA, etc.

Headquarters and Coverage Area: The Advisor will be housed in the UCCE Colusa office and work in Colusa and Yolo Counties.

Developed by: Rice Workgroup, Agronomic Crops Program Team, UCCE Colusa County Director, and UCCE Capital Corridor County Director. This position proposal is supported by the Agronomic Crops Program Team and was reviewed and is supported by ANR California Institute for Water Resources and the ANR Water Program Team. This position is proposed by the UCCE Colusa County Director.