

Local Food Systems & Direct Marketing Operations Food Safety Specialist

Position Description:

The focus of this position is preharvest microbial food safety for the growing segment of California farmers that retail directly to their local public through farmer's markets and related venues such as community supported agriculture. This position will be 0.5 FTE UCCE Specialist and 0.5FTE AES in Veterinary Medicine Extension within the Department of Population Health and Reproduction. The successful candidate will have expertise or training in diagnostic microbiology of food safety pathogens, small-scale animal production agriculture, and a demonstrated ability or potential to develop intervention strategies that reduce the dissemination of microbial pathogens in the preharvest production environment. A particular emphasis are foods of animal origin given the higher microbial threats associated with commodities, such a locally processed meats, eggs, milk, and cheese. PhD required in an appropriate scientific discipline (microbiology, epidemiology, food science, etc.) with DVM or equivalent degree preferred. This research and extension position will interact closely with I&R faculty, AES faculty, UCCE Specialists and Farm Advisors involved in preharvest food safety, healthy eating, local foods, and food security, and will develop an extramurally funded program using a multidisciplinary approach to reduce microbial hazards in the small farm environment.

Justification:

Both within California and nationally there is a rapidly growing trend for consumers to prefer locally-grown, fresh food and commodities that are either locally harvested and/or processed by members of the local community. This preference for local foods creates a unique opportunity to enhance the profitability of California small farmers while simultaneously encouraging healthy eating behaviors among the public. This new ANR position will provide food safety services (outreach, research, etc.) to farmer's markets, community supported agriculture, and other direct marketing systems, along with addressing the needs for home and community gardeners. Many ethic markets derive their products from these operations. These smaller operations typically do not have professionally trained food safety staff, are often exempted from inspection, and can have mixed plant and animal agriculture systems which create unique microbial risks. These local commodities are often inadequately regulated, such as locally processed meat facilities, local egg production operations, and milk, and would benefit for a UCCE Specialist with targeted expertise in this segment of the food continuum. For ANR to contribute to the growing trend in locally-grown foods and those farmers who are developing these systems, we need a UCCE Specialist focused on developing innovative, practical solutions to microbial food safety for this unique segment of California agriculture.

The research and extension activities of this position will enhance our state's competitive, sustainable food systems, enhance the health of California and California's agricultural economy, and to insure safe and secure food supplies. Outcomes anticipated from this timely position include:

- (1) Improved microbial safety and thus economic profitability for California grown foods;
- (2) A small farms agricultural community that is trained in modern, adoptable good agricultural practices that allows the expansion of direct marketing systems, farmers markets, and more generally California's agricultural industries;
- (3) Positioning California agriculture as a national leader in providing fresh, locally-grown safe

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foods of animal origin, developing innovative community supported agricultural systems, thereby helping insure the sustainability of our state's dynamic and progressive plant and animal food systems that specialize in local value added products.

Extension:

This position will develop and extend science-based information on how to minimize the introduction and dissemination of microbial pathogens within the preharvest small farm environment. Key clientele will involve producers, ranchers, and growers, allied professionals and agricultural organizations, regulatory agencies, and academic clientele such as UCCE Farm Advisors and AES faculty. Anticipated interactions will include collaboration on research and demonstration projects; conducting workshops, field days, and seminars; web-based training courses for growers and producers; and publication of lay and peer-reviewed publications.

Research:

The specialist will identify key sources of microbial pathogens and modes of transmission into the agricultural production environment, identify critical control points to reduce the occurrence of microbial pathogens in food animals and their products, and develop good agricultural practices that minimize the pathogen contamination of raw product prior to harvest. Publication outlets include California Agriculture, ANR peer-reviewed 8000 series, peer-reviewed agricultural journals, and lay grower, rancher, and producer publications.

ANR continuum:

There is a loosely organized network of UCCE advisors, specialists, AES and I&R faculty that are working on the various aspects of microbial preharvest food safety across California. The specialist can collaborate on numerous existing and planned research and extension projects targeting this issue. For example, scientists at the Western Institute for Food Safety and Security (WIFSS) and faculty/specialists at the School of Veterinary Medicine and College of Agriculture and Environmental Sciences at UC Davis have active programs in microbial safety of foods of animal origin. WIFSS in particular will provide seed funding, key contacts, laboratory support, and a collegial environment for the specialist to quickly develop their research and extension program and to rapidly engage California's vibrant agricultural industry.

Support:

Veterinary Medicine Extension, located within the Department of Population Health and Reproduction at UC Davis, will provide administrative support, office space, and computing and telephone support. Both the Department of Population Health and Reproduction and WIFSS will provide laboratory space for research and administrative support for grants and contracts.

Other support:

WIFSS has developed numerous collaborative relationships with state and federal agencies that provide funding for research and extension on food safety and related issues. The specialist will have the opportunity to collaborate with WIFSS programs and scientific staff, contribute to food safety professional training, and take a leadership role on relevant aspects of these funded programs. In addition, the specialist can collaborate with the California Animal Health & Food

Local Food Systems & Direct Marketing Operations Food Safety Specialist

Safety Laboratory System and interact with the newly formed partnership with BGI (Beijing Genome Institute) at UC Davis.

Location:

This position would be located at UC Davis given the existing network of food safety scientists, UCCE specialists, and agronomists at such entities as the School of Veterinary Medicine, College of Agriculture and Environmental Sciences, and WIFSS. Furthermore, location at UC Davis will allow the specialist to interact with the Center for Produce Safety, Center for Food Animal Health, One Health Institute, and other such programs located at UC Davis.