

Proposal Name	7269 18 Livestock and Natural Resources Area Advisor Sonoma Marin
Project Summary	Advisor will serve clientele in Sonoma and Marin Counties with a general disciplinary focus on livestock production systems including grazing, such as targeted grazing, pasture and range management, nutrition, herd health, animal husbandry, genetic selection, reproduction, harvesting/processing and marketing.

About the Position Proposal Development

What is your title / representation to submit this proposal?	Regional Team Leader
Please indicate the groups that co-developed the proposal. Group type(s): for Advisor proposals - Regional Team number (1-5), REC System, Program Team(s); for Specialist proposals - which Program Team(s) the initial idea came from.	Regional Team 5, Stephanie Larson, Sonoma County Director, David Lewis, Marin County Director and Monica Cooper, Napa County Director. This position is supported by the Forest and Rangeland Systems Program Team and the Meat Production and Food Safety Program Team.

About the Proposed Position

What is the proposed headquarters? For Advisor proposals, enter UCCE county office. For Specialist proposals, enter campus acronym and name of department or center.	Sonoma
For Advisor proposals only: Enter the names of the county(ies) that the proposed position covers. For Specialist proposals, enter "Statewide".	Sonoma, Marin

**Contacts**

<b>Name</b>	<b>Position</b>	<b>Affiliation</b>
Stephanie Larson	Principal Investigator	Sonoma County

**Position Title:** Area Livestock and Natural Resources Advisor, Sonoma and Marin Counties

**Developed and proposed by:** Stephanie Larson, Sonoma County Director, David Lewis, Marin County Director and Monica Cooper, Napa County Director. This position is supported by the Forest and Rangeland Systems Program Team and the Meat Production and Food Safety Program Team.

**Position:** Advisor will serve clientele in Sonoma and Marin Counties with a general disciplinary focus on livestock production systems including grazing, such as targeted grazing, pasture and range management, nutrition, herd health, animal husbandry, genetic selection, reproduction, harvesting/processing and marketing.

The successful applicant will have a minimum of an MS degree in animal science, range management or a closely related field. Ideally the applicant will have knowledge in animal science and range management, and have or the ability to have, the minimum course work to become a Certified Rangeland Manager. This position will report to the Sonoma County Director and will interact internally with the UC Davis Dept of Animal Science, and Plant Science, and Veterinary Medicine, and the following ANR Program Teams, Meat Production and Food Safety, Forest and Rangeland Systems, and the Diversified Farming and Food Systems.

**Justification:** The focus of this position will be livestock and natural resources, restoration, stewardship, and resiliency of natural ecosystems that characterize the North Coast region. These lands provide opportunity for multiple purposes including watersheds that capture, store, and release water for downstream uses; vegetation and soils that capture and store carbon; forage for grazing by livestock and wildlife; wetlands that provide habitat for endangered species; and ecosystems that may be accessed by recreational users and provide health benefits for the community.

These lands and their dependent communities are at risk from climate change, extreme weather, wildfire, intensification of use, urbanization, and invasive species. This position will address the identified risks through the development and implementation of evidence-based practices. Outreach will be accomplished through community engagement, partnership and networking with private landowners, public and private agencies. The position addresses UC ANR's stated public values of improved agricultural efficiency and profitability, improved food security, increased ecological sustainability of agriculture and landscapes, protecting California's natural resources, increased preparedness and resilience to extreme weather and climate change, promoting healthy families and communities, and protecting where we live.

The majority of livestock are cattle; however, there's a growing business of targeted grazing that use sheep and goats for vegetation management. Nearly all the cattle produced in the region consist of cow/calf and yearling operations which operate on a complex and diverse land ownership basis. Several operations produce beef for the retail trade. Livestock graze mostly private lands in but public lands (Point Reyes National Seashore) in Marin County. The diversity in ecosystems and ownership, combined with the magnitude of acreage create a never-ending need for science-based problem solving.

Animal Science issues in the area include a vast number of production centric issues such as animal performance, genetics, animal health, and marketing. These will especially be important for producers who choose to locally market their livestock, to pair performance with the environment and produce a desired end product. Local food systems are also dealing with reduction in food wastes to reduce carbon footprints. This position can play an important role in education and research on how livestock production can serve a role in the reduction, or recycling, or upcycling of local food wastes into meat production.

Rangeland issues are also important in the area. These counties receive some of the greatest rainfall in California; however, rangeland acreage is limited relative to the demand by producers. This creates limited opportunities for producers to acquire more land, meaning they are often bound with increasing the productivity of the land they currently have in an economical manner. However, with the amount of rainfall the area receives, successful management/research opportunities exist to achieve this goal. In addition, the region has had some of the largest and most destructive wildfires in California's history, creating opportunities for research in fire fuels reduction.

With livestock grazing as the largest agricultural land use throughout the region, producers face numerous issues pertaining to land access infrastructures, predators, and climate change. Climate adaptation and resiliency of oak woodlands, riparian corridors, wetlands, and transition zones between rangelands and forests. The position will assess vulnerability and measure natural ecosystem resiliency across the landscape to protect rangelands and natural resources, increase the ecological sustainability of landscapes, and increase preparedness to extreme weather and climate change. The myriad of land management strategies employed on the different ecosystems in the watersheds, rangelands, and brushlands have a wide range of effects on grazing needs and opportunities.

**Extension:** This position will extend science-based information to clientele on livestock management practices to enhance production efficiency and ranch profitability, and help minimize any negative impacts associated with livestock production. Managing ecosystems, while not a new opportunity, is an area where UC is well positioned to provide leadership and generate success. Key clientele groups include livestock producers, public resource management agencies (Natural Resource Conservation Service (NRCS) and, and Resource Conservation Districts), nonprofit conservation organizations (such as fire safe councils, local watershed councils, land trusts and other non-government organizations) and several youth groups (4-H, and FFA). Collaboration with these groups will identify issues and opportunities for extension of livestock and land management information using seminars, workshops, field days, internet resources and producer-oriented and peer-reviewed publications.

**Research:** This advisor, collaborating with other CE advisors and specialists, AES faculty, and clientele will help implement management practices that improve livestock production in the region and will address production, animal health, food safety, meat processing and marketing, water quality, soil quality, and ecosystem health. Species most emphasized is cattle, but also includes sheep, goat, and small-scale poultry.

The advisor will work with new and existing producers to develop educational outreach programs and research that address challenges to help support the diverse livestock community. Farm Bureau and local cattlemen's associations provide quick avenues to become trusted and embedded within the community. These opportunities are important because they provide the avenue to create relationships that enable ANR to become part of the local community.

**ANR Network:** The advisor is well poised to develop strong programmatic ties with livestock, plant science, forestry, natural resource, water, and range advisors on the North Coast and not the Bay area. Likewise, specialist support is equally strong.

This position will be supported by CE Specialists and AES researchers at UCD (Animal Science; School of Veterinary Medicine; Plant Science; and Agriculture Economics), the UC Berkeley Dept of Environmental Science, Policy and Mgmt., and Specialists housed at UC Riverside, specifically for livestock entomology. There are immediate opportunities to collaborate with these campus-based colleagues on existing projects. These assets offer collaborative and mentorship opportunities to help make this position successful.

**Network External to ANR:** The external stakeholders for this position include; landowners and land managers, government agencies including USDA Natural Resources Conservation Service and the Farm Service Agency, County Agricultural Departments, Sonoma County Water Agency, Marin t); NGOs including Sonoma County Ag & Open Space District, Marin Agricultural Land Trust (MALT), California Rangeland Trust; private industry including California Cattlemen's Association, California Cattlemen's Association, California Wool Growers, and the public. Cattleman's Association. Local and statewide Farm Bureau, Sonoma Marin Cattlemen's, and other agricultural and conservation organizations strongly support this position.

**Support:** Sonoma County offers robust support for the advisor including:

- Transportation – The advisor will be provided a shared vehicle for the livestock and natural resource program. These vehicles are depreciated and replaced through the county budget for a reliable source of transportation,
- Office space– Personal and private office space, including an additional conference room, and storage space will be provided
- Supplies and equipment – The robust Sonoma County budget includes all necessary supplies and equipment including office supplies, computer and IT, and printing,
- Staff Support – Day to day staff support includes two full time office staff, clerical and Field Assistant to help with data entry, field research trials, newsletter preparation and extension events.
- The position will be housed in the Sonoma County office, with county travel support provided. When duties incur travel to neighboring County, there is county funding to pay for mileage into Marin County.

**Location:** The advisor would be housed in Sonoma UCCE office located in Santa Rosa, CA.