**Roberts Ranch Internship – Grazing Plan, Implementation, Livestock Management**

Extension agent/specialist mentor name and county/region. Karen Crumbaker, Larimer County Extension.

Are there any other identified mentors (e.g. campus-based faculty/staff or other Extension personnel) associated with this project? Kevin Jablonski, Assistant Professor, CSU College of Animal Sciences; Abe Ott, Snap Lands; Zach Thode, Manager of Roberts Ranch.

In what region(s) will the student be working (county/region)? Northern Larimer County; The Roberts Ranch is 20 miles northwest of the CSU campus in the Laramie Foothills of northern Colorado.

Please describe the proposed internship goals, scope, and objectives.

Goals: This internship will:

1. Train an intern to develop, implement and monitor a grazing plan for summer and fall managed grazing on ~12,500 acres of the Roberts Ranch in Livermore CO.
2. Provide side by side hands on experiences including:
	1. Develop Range monitoring including plant/animal species identification skills
	2. Develop low stress stockmanship livestock handling and moving skills
	3. Develop hands on skills for managing temporary fences and livestock water inventories

Scope: The work will include:

1. Early season planning in May for where, how, and how many cows will be grazed throughout the summer. Work to be completed alongside professionals, and Extension.
2. During the grazing season the work will include ~20 hours per week of moving temporary fences, checking livestock water.
3. Throughout the summer weekly monitoring of range health including identifying indicator plant/animal species.

Objectives: This internship will provide hands on training for how to develop:

1. Successful grazing plans, best methods for implementing these plans,
2. low stress cattle handling techniques
3. responsive range monitoring including plant/wildlife species identification.

How was this applied research project identified? The Roberts Ranch in 2020 transitioned from a 12-month grazing operation to 6-month grazing with more managed rotational grazing to help the ranch recover from some previous overgrazing. This transition made apparent the value of managed grazing, but also the limited trained workforce that is available to help plan, implement and monitor successful grazing in this region. There is a need to monitor, and report on successful grazing practice on the Ranch to enhance future management plans.

With which stakeholder group(s) will the intern work? CSU Larimer County Extension for bi-weekly updates and some assistance in plant identification; Faculty with the College of Animal Sciences for 2 onsite visits and occasional bi-weekly meetings to ensure experiential learning; the Roberts Ranch Manager for weekly updates and some tours; and professional range stewards for side by side experiential learning.

What student learning outcomes do you anticipate and are there opportunities for professional development? The intern will learn how to make a grazing plan based upon local observable inputs including: past monitoring reports, field inventory, and climatic annual variables. The intern will gain a basic skills for managing temporary fences, plant identification, and low stress stockmanship. The intern will learn how to monitor and report on the impacts of grazing on the rangeland. The intern will attend up to 4 ranch tours to better understand the economics, ecology, history, archeology, and anthropology on the Roberts Ranch.

Do you have a specific mentor style that you would like to share with potential interns?

The intern will work with primarily on the ranch planning and implementing the grazing plan with professional range stewards including staff from the Roberts Ranch, Snap Lands, and Leachman Cattle of Colorado. There will be bi-weekly meetings with mentors from CSU and extension to work through any problems.

Are travel funds available? Opportunities to provide student assistance with housing? There is an option for the intern to live in a bunkhouse on the ranch if interested, details to be further resolved if intern expresses interest.