**Grazing as a Potential Tool for Controlling Cheatgrass**

-- A proposal for the 2022 Summer Extension Internship Program --

**Mentors and Application Contact Information**. The extension mentor will be Annie Overlin (annie.overlin@colostate.edu), CSU range extension agent for eastern Colorado and the San Luis Valley. The primary academic mentor will be Bill Romme(william.romme@colostate.edu). In addition, Paul Evangelista (Paul.Evangelista@colostate.edu) and Tony Vorster (Anthony.Vorster@colostate.edu), will be mentors with the project. All three are research ecologists at CSU’s Natural Resource Ecology Laboratory (NREL). Aaron Swallow (aaron.swallow@tercioranch.com) is the Environmental Manager of the Trinchera Blanca Ranch in southern Colorado where the intern will be stationed.

**Internship goals, scope, and objectives.** The primary goals will be to gain experience in a variety of ranch operations and to experiment and evaluate how livestock grazing can be used to reduce the abundance of cheatgrass (*Bromus (Anisantha) tectorum*). The intern will have a central role in conducting and evaluating the results of this experiment. The intern will also have opportunities to be involved in ranch tasks that may be of interest, such as livestock grazing programs, identifying and mapping other undesirable invasive species, forestry, riparian restoration, guest services, and irrigation.

**Student outcomes and Professional Development Opportunities.** The intern will gain basic skills in experimental design, field sampling, data analysis, and writing a scientific report. She/he will also gain practical experience in managing a cattle herd; in identification, mapping, and control of undesirable rangeland plants; and in identification of important native range species.

**Mentorship.** Annie is part of a 6th generation ranching family in south central Colorado, and serves as the Peaks to Plains Regional Range Specialist for CSU Extension. Bill, Paul, and Tony have all worked with several ranches on management issues including wildfire mitigation, invasive species control, and wildlife habitat improvement, and they led the development of the new Western Ranch Management and Ecosystem Stewardship Program (https://westernranchmgmt.nrel.colostate.edu/) at CSU.

The intern will work at Trinchera where sound stewardship and management efforts are utilized to improve wildlife habitat and forest and watershed health. This commitment helps Trinchera Ranch to maintain some of the most complete and diverse wildlife habitats in Colorado. Trinchera is located in the San Luis Valley and features vistas of high desert grasslands as well as montane and alpine forests. The owner authorized conservation easements to the United States Fish and Wildlife Service and Colorado Open Lands to protect Trinchera Ranch in perpetuity. The conservation easement with the Fish and Wildlife service helped to create the Sangre de Cristo Conservation Area within the National Wildlife Refuge System.

Managers and staff work closely to protect the natural resources implementing data driven best management practices. The intern mentor will be Trinchera’s Environmental Manager, Aaron Swallow who assists ranch mangers in the annual and long-term planning, implementation, and monitoring of aquatic and terrestrial habitat management projects. The apprentice will spend some time working with the ranch foreman and farming, forestry, as well as conservation and sustainability and recreation managers to provide a well-rounded experience.

Housing will be provided, and travel funds can be supplemented.