Feasibility of Virtual Fencing

The Fitch Ranch, located in Grand County, has installed a *Vence* (http://vence.io/) virtual fencing system– one of the first in Colorado. Virtual fencing allows ranchers to fence cattle through the internet and a collar on the livestock. The Fitch Ranch produces high-quality beef by “prioritizing land stewardship and the well-being of their animals”. The ranch runs about 200 head of cattle on about 26 square miles of range that include Bureau of Land Management (BLM) and U.S. Forest Service (USFS) grazing allotments. Virtual fencing can be economical compared to traditional fencing, eliminates wildlife losses associated with barbed wire, and offers flexibility that can improve both profit and environmental outcomes. It can even be used to efficiently accommodate rotational grazing systems or to exclude livestock from sensitive areas.

We are seeking an intern to assist in ranch operations and in the collection of data from the Fitch Ranch to help us better understand the costs, benefits and capabilities of a virtual system compared to traditional fencing. The interns will split time between being on campus and on the Fitch Ranch. While on the ranch, the intern will work with the owners and ranch hands to learn the basics of ranching in northwest Colorado. The student will assist with ranch work associated with traditional fence maintenance and repair, cattle production, and help to maintain the Vence virtual fencing technology. These tasks will help the intern better understand the economic value of the traditional fencing being replaced by virtual fence. The student will also work with the ranch to document expenditures and to determine what influences costs and benefits in an applied setting. Housing will be provided when on the ranch. On campus, the student will help find information from articles and interviews and prepare reports for the project mentors.

Mentors for this project will be Dr. Dana Hoag, Department of Agricultural and Resource Economics and Olivia K. Clark, Grand County Extension Director/Agent. Additionally, Dr. Paul Evangelista, Natural Resource Ecology Laboratory, and Dr. Tony Vorster, Natural Resource Ecology Laboratory, will provide additional support and expertise to the project.