



DATA TRACKING IN LIVESTOCK PRODUCTION COLORADO, USA

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PROJECT OVERVIEW

This project aims to work with livestock producers across Colorado to assess the state of current data collection practices (what data are currently collected and how that information is tracked) so we can identify important data gaps and new avenues for appropriate data collection strategies. The project will engage extension agents around the state to help build community awareness of the importance and accessibility of good record keeping.

The intern gained subject area expertise in beef cattle ranching operations related to animal performance and ranching practices in Colorado. The intern traveled around the state and met with livestock producers and CSU Extension agents.

GOALS

- Assist cattle ranchers across Colorado in improving record keeping practices
- Learn about the current methods, benefits, challenges, and usability of production records for Ranchers across the state
- Prepare ranches for CPW record keeping requirements for wolf depredations
- Engage extension agents to create a program that supports and builds a culture of data management and use in production decisions

APPLICATION

My research focus is on community economic development with a focus on rural communities. This internship offered an opportunity to engage with various ranch communities around Colorado and to learn about the needs and challenges unique to each region and each operation.

Going forward, this project will bridge both extension and analysis. I believe both are essential to sustainable development and am grateful to have been exposed to this in the Colorado economy.

EXPERIENCE

- Visited ranches and met virtually with producers
- Discussed current methods of record keeping and data management
- Researched existing data options, utilizing research at K-State
- Met with extension agents and discussed project and program future
- Learned red books and stats most important to production success

MOCK Of RANCH #0004 DATA

Ranch #0004 has been regularly affected by the wolf presence in the area. We worked together to digitize pertinent records for CPW, but the ranch has several more years of data and data points to transfer into excel. It was interesting to see the difference between hand written record practices and that of software-based enterprises.

2020						
COUNTS	OPEN	SHIPPED	PREG RATES	CALVES BORN	FIRST CALF H	Calf Crop
312	22	45	93%	287	34	N/A
2021						
COUNTS	OPEN	SHIPPED	PREG RATES	CALVES BORN	FIRST CALF H	Calf Crop
320	10	80	97%	300	10	81%
2022						
COUNTS	OPEN	SHIPPED	PREG RATES	CALVES BORN	FIRST CALF H	Calf Crop
280	15	20	94%	260	20	84%
2023						
COUNTS	OPEN	SHIPPED	PREG RATES	CALVES BORN	FIRST CALF H	Calf Crop
302	17	20	94%	235	0	TBD

Review of Ranch #0001 Production Record Keeping

Review of Agriwebb for Ranch #0001:

BENEFITS:

- Each critter has a profile in the system that can be updated with any information – medical records, changing ID tags, sire, mother, DOB, fertility status
 - Calves are added to the system the day that they are born
- Data can be easily downloaded to a CSV to be analyzed and cross referenced against other data systems
- Animals can be searched by any of their IDs – EID, ear tag, previous ear tag
- Grazing times in each pasture can be estimated based on forage density and the app will keep a log of 'days remaining' recommended for each pasture that is occupied for easy grazing schedules
- Inventory can be tracked – e.g. how much of each medicine has been used
- Easy to use on the go: this ranch can weigh and handle cattle through the chute simultaneously with one worker who holds the iPad, documents weights as the animals walk through the scale, and can shuttle them at the same time.
- The app provides a map of the property and is broken out by each pasture. When a group is moved to a new grazing area, the change can be logged into Agriwebb and the management group will appear on the map in the new location with a date stamp
- Compatible with electronic ID and other Bluetooth: this ranch chooses to keep some processes manual.
- Tasks can be assigned in the app to members of staff – if the manager notices a broken fence while out in a pasture, he can pinpoint it on the map and assign a repair task while on the go

LIMITATIONS:

- Changes to the system are only applied once the app is back online and refreshed
- Works on both apple and android devices but much more compatible with Android
- Grazing feature takes some trial and error – sometimes Agriwebb will say that there are 4 more days of grazing left in a pasture but the cattle won't go to certain types of terrain and run out of grazing area more quickly – could be a limitation in more mountainous areas.

CHALLENGES

- Timing: most ranchers are too busy for such a project during calving and haying season
- Feasibility: We worked throughout the summer to mold the expectations of the research project to fit the needs and availability of affected communities

Fetcher Ranch



NEXT STEPS

Moving forward, this project will focus on extension engagement. We will have an initial interest meeting in the coming weeks where our team will sit down with extension agents and interested ranchers to learn what kind of support is needed to help improve record keeping practices and knowledge sharing between communities. We intend to build community groups by extension region; range management and calving schedules vary throughout the state depending on environment.

Our long-term goal is to create a holistic approach to production records that allows ranchers to seamlessly integrate data collection and analysis into ranch management. We believe that production records are a key component of success but are committed to building out a program that considers cost and environmental factors that contribute to ranch success.