



GOATS EAT WEEDS 2.0 ARCHULETA COUNTY (PAGOSA SPRINGS)

Garrett Fong – Intern
(College of Agriculture)

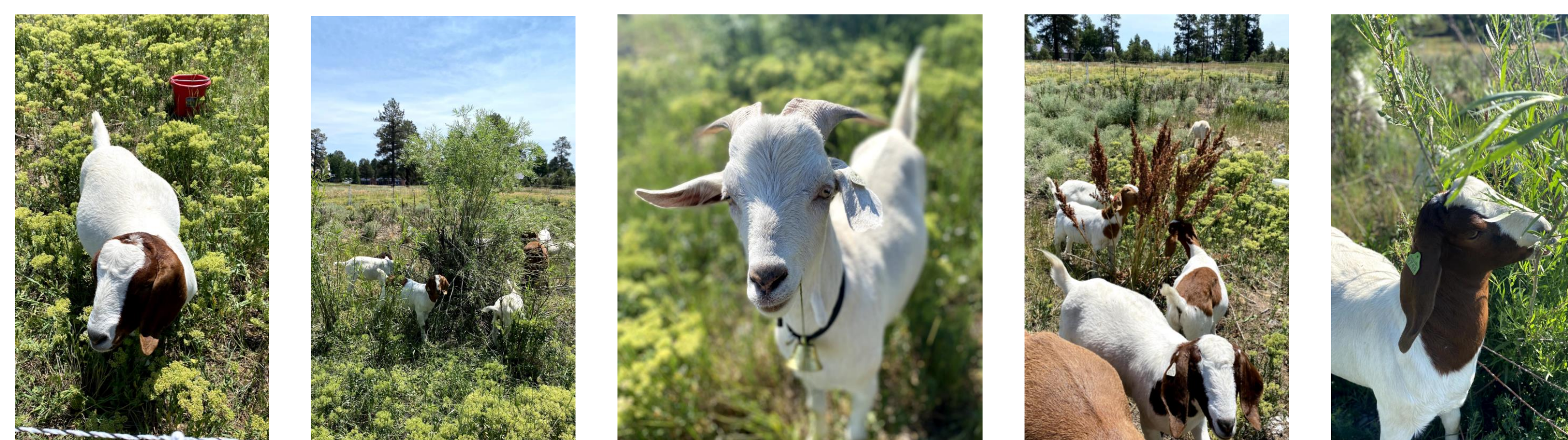
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PROJECT INTRODUCTION

Noxious weeds are those identified due to their harmful impact on agricultural lands and the environments around them. Goats can be an additional tool in the management of lands especially for those who do not want to use chemicals. Mixed with other management techniques since no one tool will provide complete eradication for noxious weeds. Grazing not only allows for the control of noxious weeds but also helps in land management. By closely managing the grazing of goats it will hopefully allow native plants to grow and outcompete the noxious weeds in the area. An important question that was asked for this internship was if weeds seeds were still viable after passing through the digestive tract of goats. In order to ensure that by grazing goats on noxious weeds we are providing a solution and not exasperating the problem.

GOALS

- Determine if weed seeds (Kochia) are still viable after passing through the ruminant digestive system of various species of goats
- Observe grazing behavior of goats
- Engage the community with a public demonstration along with the San Juan Conservation District, NRCS, and Archuleta County Weed and Pest of goat grazing for the purpose of land management.



GRAZING AND WEED MANAGEMENT

In 2020, the summer intern in Archuleta county observed a herd of goats, owned by a local couple, about their grazing habits. The aim for this project was to determine how these goats could be used as an additional tool for grazing and weed management within Archuleta county. The goats were observed in order to identify grazing/browsing habits as well as the types of weeds they would eat.

This Summer the goal of the internship was to replicate and expand on the project from the previous year. With the same goats this summer, the objective was to determine if weed seeds are neutralized as they pass through the ruminant digestive track. I took kochia weed seeds placed them into gel capsules that were then administered to one of the 5 goats used in the project (1 Alpine, 2 Kiko, 2 Boer). They were separated by breed into 3 pens and each pen received 4 capsules (each capsule held approx. 116 kochia seeds). Over the next 72 hours I collected fecal samples at 12-hour intervals. The samples were sent back to Fort Collins near the end of the project, The samples were planted in trays to see if any kochia made it through the digestive tract and was still viable.

Along with the San Juan Conservation District, NRCS, and Archuleta County Weed and Pest, we took the same goats and put on a public demonstration on how to utilize goats in land management. It was an important demonstration to put on because it not only showcased how goats can help reduce weeds but how they can also help manage land by removing brush. The goats seemed to gravitate towards the willow brush along with the curly dock. It was great to see the community's excitement for the goats along with a chance to see the impact goats can have in only a few hours.

IMPACTS & OUTCOMES

- There was no growth from any of the samples which indicates that kochia becomes nonviable once passing through the ruminant digestive system
- As grazers goats were more likely to eat woody plants like the shrubs but also meant they liked to eat the curly dock

RELATION TO MY EDUCATION

One thing I took away from this internship was the support that extension provides for communities. The different boards, events/classes that were put on by extension, and people that I interacted visualized to me the impact that extension had in Archuleta County. As I work on my agriculture education, getting to see the education that extension provides and having to help create the literacy connections with other people was helpful in guiding my career decisions. I found the experience working with community members to be valuable experience that I will take into my teaching career.

