



## JOURNAL OF THE NACAA

ISSN 2158-9429

VOLUME 14, ISSUE 2 - DECEMBER, 2021

Editor: Donald A. Llewellyn

## BARNYARDS AND BACKYARDS LIVE!

*Vardiman, J. , Extension Educator, University Of Wyoming Extension*

*Edwards, J., Pesticide Coordinator and Horticulture Specialist, University of Wyoming*

*Thompson, J., Small Acreage Coordinator, University of Wyoming Extension*

### ABSTRACT

Wyoming is experiencing a significant shift in land use with small acreage parcels increasing in number. This shift brings a need for education so landowners do not overgraze their acreage. Prior to 2020, education was mainly provided by in-person workshops. The COVID pandemic hit, forcing the Small Acreage Issue Team to reach clientele in a virtual format. Barnyards and Backyards Live was presented as a live webinar hosted via Zoom and Facebook, clientele were able to leave comments and ask questions for the guest. In 2020, there were 35 programs delivered that reached a total of 3,850 people.

### INTRODUCTION

Wyoming like many Western States is seeing a significant shift in land use. Small acreage parcel sizes are increasing in number as former farms, ranches, and open landscapes are being subdivided into parcels ranging from 1 acre to 160 acres. These parcels are typically referred to as "Ranchettes". In stakeholder input sessions conducted by the Small Acreage Issue Team (which is composed of a variety of organizations, with the University of Wyoming Extension being a lead member), local agencies such as Weed and Pest Districts, Conservation Districts, and other groups repeatedly express the need for education for small acreage landowners because a majority of new owners are from out of state and Wyoming's growing conditions are different than a majority of states that these owners previously lived in.

The stakeholder input sessions identified three main areas of concern on small acreages: overgrazing, lack of cultivation practices for horticultural crops and pastures, and lack of irrigation knowledge. The most common issue across the state is new landowners putting 4 or more head of horses on 10 to 40 acres and continuously grazing the property. In the state of Wyoming, stocking density is based on the number of acres per head, with dryland acreages requiring 30 or more acres per head per month. The overgrazing is then compounded by lack of cultivation and irrigation knowledge, resulting in infestation of weeds and soil erosion.

In 2015, the Small Acreage Issue Team sent out a survey to Wyoming's small acreage landowners to assist with guiding the team's educational efforts in addressing the expressed need. The results from that effort and compiling of the 2013 State Assessor's list indicated that there were approximately 37,000 landowners that live on small acreage and that acreage totals approximately 1.26 million acres in Wyoming. The counties with the highest number of small acreage landowners were Laramie (4,500), Fremont (3,200), Natrona and Park (both near 2,800), followed by Albany, Lincoln, Campbell, and Sublette.

The survey results indicated that a majority of small acreage landowners are 50 years old or older, most do not have prior experience managing land (50% in-state respondents, 70% out-of-state respondents), 40% own equine(s), and the main reasons for purchasing their acreage was for enjoyment of privacy, aesthetic value (beauty of nature), and enjoy wildlife on their property. The land management activities that the respondents wanted more information on were: alternative energy, soil health, growing native plants, managing pest, growing food, animal health and nutrition, managing grazing, and more.

Prior to 2020, the small acreage team better known across the state as Barnyards & Backyards, had provided numerous in-person workshops to educate homeowners and small acreage landowners on a wide variety of topics. Almost all these educational workshops were held in-person at venues across the state.

In March 2020, these workshops were completely shut down because of the COVID-19 pandemic. The pandemic's statewide health orders closed certain business, restricted travel, and prevented in-person gatherings from March 2020 to about July 2020. In the start of 2021, health restrictions are starting to lessen, which would allow for small in-person gatherings (25 people indoors if able to social distance), however these types of limitations are still not conducive for Extension to host in-person workshops. The age of many small acreage landowners would place them in a higher-risk category according to the CDC. The pandemic was and still is a major obstacle to providing education and resources to small acreage landowners.

In addition to health policies, Wyoming is a large state in terms of land area, however with a low population; 97,093 square miles and 578,759 people respectively (2019 Census). In fact, there are more beef cows, 702,000 (2020 USDA State Agriculture Overview), than there are people in the state. A combination of Wyoming's large land scale with low population density has a direct impact to the state's connectivity, especially the rural communities. The connection to cell towers and internet is variable across the state, with a few locations having limited or no available service. There are still people and a few areas within the state working on dialup internet connections. This varied connectivity has slowed and limited digital or virtual education programs historically. On top of that, a high portion of Extension's traditional clientele tend to prefer in-person and printed materials for educational venues.

## METHODS

In response to the restrictions that the COVID pandemic placed on the state of Wyoming in 2019, the Small Acreage Issue Team started offering small acreage education on a "Barnyards and Backyards Live" format style. This show consisted of a series of engaging webinars exploring various small acreage topics. These live webinars were hosted by two co-hosts from the University of Wyoming Extension and followed a fun conversational tone with the hosts interviewing guest speakers and discussing the day's small acreage topic.

The schedule for Barnyards & Backyards Live was listed and available on the Barnyards and Backyards Website (<http://www.uwyo.edu/barnbackyard/live/recordings.html>). The monthly schedule was then advertised via statewide press releases and direct clientele email lists. The biweekly shows were advertised via boosted Facebook posts and direct clientele email lists.

The show was free to all participants and no registration required to attend. All advertising directed participants to the website to gain access to the virtual meeting link. This was a precautionary method to prevent "Virtual Meeting Bombers", which are individuals that join a virtual meeting for the sole purpose of disruption with rude and potentially vulgar methods.

The Barnyards & Backyards Live shows were offered twice a week on Zoom (a virtual meeting space) and simultaneously on Facebook Live during April and May. Then were offered once a week from June thru September. Anyone across Wyoming and even the nation, could join these live webinars on Zoom or Facebook Live and ask their questions during the show. The shows were also recorded and uploaded to YouTube, then the links to these videos and the resources mentioned during the shows were provided on the Barnyards & Backyards website.

In 2020, there were 35 shows conducted with each show an hour in length. These shows explored a wide variety of topics; growing and preserving food, raising livestock (horses, sheep, goats, chickens, etc.), native plants and birds, plant diseases and insect pests, land management, and others (Figure 1 and 2).



Figure 1. Screenshot of the equine nutrition topic, speaker Dr. Jenny Ingwerson with UW Extension



Figure 2. Screenshot of the emerald ash borer topic, speaker Tara Costanza and Aaron Lumley with Wyoming State Forestry Division.

## RESULTS

For Wyoming standards, this innovative and collaborative program overcame the obstacles presented by the COVID pandemic by utilizing virtual programming with Zoom meetings and Facebook Live to provide landowners with an engaging way to learn by drawing on disciplinary expertise across the College of Agriculture and Natural Resources and beyond. In total, these shows reached 4,395 people in 2020. Of those people reached, 1,971 participated and interacted in the live shows, 880 of those on Zoom and 1,532 on Facebook Live. The remaining 1,983 contacts viewed the recorded shows on YouTube and watched an estimated 423 hours of content.

Topic and season affected the participation in the shows. Horticulture topics tended to be the most popular topics, such as soils, season extension with high tunnels, and starting plants from seeds, while livestock related topics tended to have lower participation (Chart 1). Participation was also the highest in the Spring (April and May), lowest in the Summer (June, July, and August), with Fall (September) having slight increase in participation over the summer sessions (Figure 3).

Chart 1. Total views for each Barnyards and Backyards Live, this includes Zoom, Facebook and YouTube views.

Topic	Total Views
Game meat - safety and processing	266
Getting started raising sheep	262
Soils for successful vegetable gardens	260

Extending the season with high tunnels and geodesic domes	238
Planting early spring veggies	235
Starting plants from seed	228
Choosing and growing flowers in Wyoming	206
Extending the growing season for vegetables	199
Birds of Spring in Wyoming	182
Wildflowers of Wyoming	174
Getting started with chickens	166
Native plants for your garden	164
How to create a landscape bed	149
Grazing small acreages	133
Successfully watering your garden	130
Spring weed control	127
Controlling difficult weeds	108
Seed harvesting and saving	107
Wrapping up the gardening season	101
Common insect issues in garden and yard	96
Getting started with goats	95
Protecting our trees from insect invaders	92
Equine nutrition	77
Plant diseases in the garden	71
Making cured meats – summer sausages and snack sticks	59
Trees: increasing diversity	56
Buying hay – lets get to the good stuff	56
Protecting your garden and property from deer damage	55
Plants toxic to cattle, horses, and sheep	53
The ins and outs of pasture irrigation	51
Fly management for the barn and pasture	50
Raising freezer beef: What does is cost?	50
Safely preserve your garden harvest	38
Wyoming pollinators	31

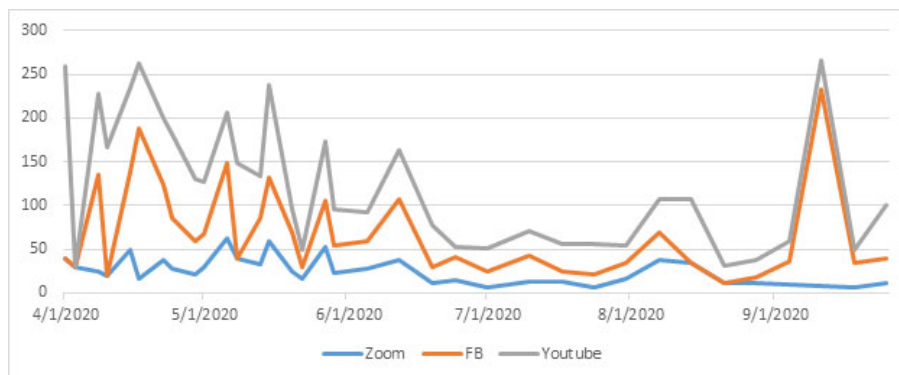


Figure 3. Participation seasonality for Barnyards and Backyards Live.

After each live show was completed, the participants were asked to complete an evaluation to provide program feedback. The evaluation results showed the following:

94% of participants rated the show as good or excellent (excellent being the highest out on a 5-point Likert scale).

88% indicated that the show answered their questions.

81% indicated that they will change their practices on their property because of the information provide in the shows.

Participants indicated a 30% increase in knowledge gained because of the show.

Some examples of how participants reported the way they would apply their knowledge to their property:

Techniques on food safety and flavor improvements

The information on how to control weeds

Identify and eradicate weeds

I will stop tilling my bind weed

As I replace trees, I will look to get more diversity

Successfully and simply growing from seeds

My wife and I plan on building a high tunnel for our garden and small hoop house for composting

Adjust timing when I graze my pasture

I'll be planting some things earlier and some things I hadn't tried before.

Starting my own flock for eggs.

## DISCUSSION

Even in a large state, with low population density, and variable connectivity, virtual educational delivery formats were accepted by clientele. No doubt, the parameters of the COVID pandemic contributed to the success of this format. Because of health restrictions, mainly limitations on travel and gatherings, clientele was more home bound which increased their interest in conducting home projects like gardening and allowed them time to join the virtual webinars. This effort has also shifted clientele's perspective and appears to have increased their acceptance of educational programs delivered electronically.

## LITERATURE CITED

U.S. Census (2019). Quick Facts Wyoming. Retrieved from <https://www.census.gov/quickfacts/WY>

USDA-NASS (2020). State Agriculture Overview Wyoming. Retrieved from [https://www.nass.usda.gov/Quick\\_Stats/Ag\\_Overview/stateOverview.php?state=WYOMING](https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=WYOMING)

---