



Arizona/Utah range workshop and tour – building on 46 years of success

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Abstract

The Arizona/Utah Range Livestock Workshop & Tour builds cooperation and understanding between public land grazing permittees and federal agency personnel through science-based education. The workshop provides information on livestock production practices and addresses controversial grazing issues in a non-confrontational environment. Topics range from animal handling, vaccination, and health to solar development, partnering with public land agencies, and recreation effects.

Introduction

The Arizona strip is a vast track of land located along the border of the states of Arizona and Utah in the United States. It covers over 3 million acres, and due to its accessibility limitations imposed by the Grand Canyon it is primarily accessed by ranchers in Utah and Nevada. The vast majority of this land is public land and is owned by the citizens of the United States of America, as such it is managed by the Bureau of Land Management (BLM).

Ranchers have been grazing livestock in this area since the 1800s and is currently the source of 100,000 Animal Unit Months (AUMs) of grazing, with an economic value of \$7.1 million/year (Heaton, 2024). and is especially important in winter months.

In the mid 1970s grazing on the Arizona Strip became a contentious issue in Southern Utah, Northern Arizona, and Southern Nevada due to the completion of the “Hot Desert” Environmental Impact Statement coupled with the designation of the Desert tortoise as an endangered species. Many allotments were closed and ranches were forced out of business. The AZ/UT Range Workshop was developed by Utah State University Extension and the University of Arizona Cooperative Extension in response to these issues with the goal to bring ranchers and government agencies together to work on these problems and learn how to best manage allotments. The first workshop was held in 1978 and has continued for 46 years as a free workshop with the goals of strengthening relationships and bringing cutting edge science-based knowledge to its participants. This workshop’ funding is sponsored by ranchers, local businesses, and conservation districts.

Today, the workshop consists of two days of workshops, presentations, and vendor displays with a third day being spent on a rancher's allotment learning about their range improvements, innovations, and participating in hands on workshop to learn how to manage allotments better.

These workshops are evaluated by University Faculty to determine the effectiveness of each workshop and to help guide the following years workshop topics and tour locations. Continuous evaluation and adaptation ensure that the range livestock workshop remains aligned with the educational needs of grazing permittees and supports effective collaboration between ranchers and public land agencies. Looking ahead, USU Extension will strive to continue this program's long-standing success by delivering science-based education and enhancing relationships between ranchers and government agencies for years to come (Heaton et al. 2024)

Methods

Needs Assessment As mentioned in the introduction the workshop is evaluated each year with the results serving as a needs assessment for the following year. The results of the evaluation are distributed to the planning committee annually to help guide topic selection. Once topics are selected, speakers are then identified and booked for the workshop which takes place annually in March.

Goals and Objectives The goals of the AZ/UT Range workshop are to increase knowledge of participants on the previous selected topics. A pre/post evaluation is given at the end of each workshop to evaluate overall knowledge gain on each topic covered at the workshop. The evaluation also collects data on the demographics of each participant, overall satisfaction of the workshop, venue, vendors, food, and to identify information that participants would like to learn about the following year.

The tour is likewise evaluated with a focus on the stops of the tour and knowledge gained on different topics covered at each stop with a pre/post survey. Information is also collected on participants preference for the following year's tour location and overall topics.

Evaluations and Analysis As previously mentioned, evaluations are distributed at the end of each workshop. The evaluation includes a pre/post survey to determine the percentage of knowledge gain. Short answer questions to determine changes in behavior, and collects information on participants age, occupation and how often they have attended this workshop.

To calculate the percentage knowledge gain for the group, use the following formula was used for absolute percentage change:

$$\text{Absolute Percentage Change} = \frac{\text{Post-Test Score} - \text{Pre-Test Score}}{\text{Pre-Test Score}} \times 100$$

Results

Evaluations from the 2024 Arizona/Utah Range Workshop and tour evaluated 9 presentations with a pre/post survey and found significant knowledge gains in each of the topics covered. The topic with the most substantial growth was "Vence" (Virtual Fencing) which is a topic that had not been covered in prior years. The least impactful topic was "Plant Response to Grazing" (see Fig. 1), which had been covered in prior years and was also demonstrated on the tour in 2024. In addition to the percent of knowledge gain a simple t-test was used to evaluate each topic and found a significant difference in knowledge gained across all topics.

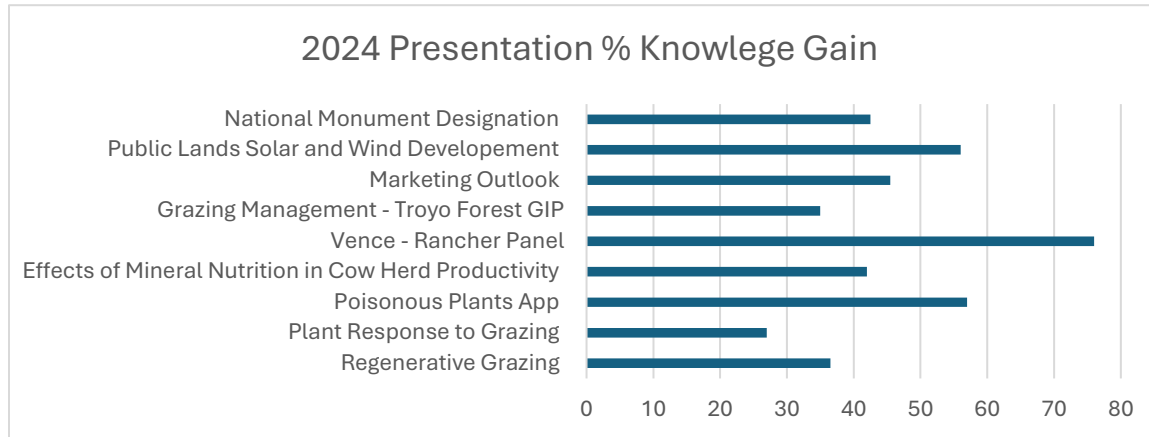


Fig. 1. Graph showing % knowledge gain by presentation topic.

Demographics and Behavioral Change:

Evaluations of the Arizona/Utah Range Workshop and Tour for the past 20 years have identified changing trends as well as reenforced old ones. Attendance has stabilized around 255 participants/year, but the age demographic has changed significantly over the past 20 years. (see Fi 2.). In 2003 we found that 64% of our participants were over the age of 50 with 34% being under the age of 50. Recent evaluations found that 68% of participants are under the age of 50. In fact the largest demographic in 2024 was in the age range of 20-29 years old, making up 40% of all participants. Participants perception on different topics also show a favorable change of at least 69% of participants indicating that they will change their behavior as a result of what was learned at this workshop. (See Table 1.).

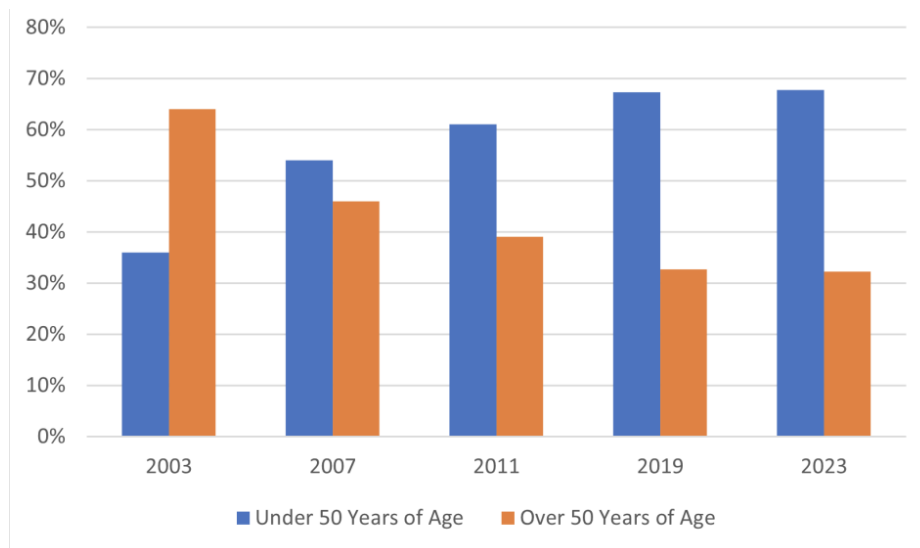


Fig 2. Age Demographics 2003-2023

Table 1. Participants perception of knowledge change post workshop (N=154)

Topic	%		
	YES	NO	N/A
Do the sponsors displays influence your purchasing decisions	84	16	0
Were Sponsors displays educational?	91	9	0
This workshop Improved my awareness of the topics covered	99	0	1
This workshop Provided new knowledge	99	0	1
This workshop Provided new skills	90	6	4
This workshop Modified my opinions and/or attitudes	83	12	5
This workshop Will improve advice I give to others	92	1	7
I am likely to use some aspects of this activity In my farm/ranch/home operation	74	5	20
I am likely to use some aspects of this activity in an educational program that I will plan or participate in	69	6	25
I am likely to use some aspects of this activity As a resource I will make available to producers	69	10	21
I am likely to use some aspects of this activity As a professional development tool for my peers	69	9	22

Discussion

The Arizona/Utah Range Workshop and Tour has demonstrated positive overall findings in knowledge gain to its participants across multiple topic areas consistently for its 46 years of operation. The workshop provides participants with opportunities to expand their knowledge, skills, and relationships with other stake holders in range management.

The workshops evaluations capture knowledge gains and behavioral changes adequately but reveal the need for adaptations to better capture impacts of the workshops additional goal of building relationships between government land management organizations and ranchers. Some publications on this workshop have been published through Utah State University Extension with additional research needing to be done on long term impacts from this workshop on ranching operations on the Arizona Strip.

To build on the 46 years of success that this workshop has demonstrated, organizers will need to continue to focus on the needs of participants by continuing to focus on new technologies, practices, and marketing opportunities that participants require to stay relevant in today’s industry. With a large shift in population age demographics this workshop is uniquely positioned to have a large impact on the new generation of ranchers in the southwestern United States. In conclusion this workshop has been very impactful in providing science-based information on a wide variety of topics and additionally has served as a blueprint

to other similar workshops across the western United States. It is well known for its ability to bring land managers together and solve problems.

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