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## Evaluating 45 Years of Collaborative Range Livestock Education

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## Evaluating 45 Years of Collaborative Range Livestock Education

*Melanie Heaton, Andrew Brischke, Ben Scow*

### 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 & Problem

The Arizona Strip is a dry, arid area north of the Grand Canyon and south of the Utah border, which encompasses over three million acres (Altschul et al., 1989), and has been an important source of public land livestock grazing for ranchers in southern Utah, northern Arizona, and southern Nevada since the 1800s (Grahame et al., 2002). However, livestock overgrazing in the late 1800s damaged many acres of desert lands, most of which were managed by the United States Bureau of Land Management (BLM) or the United States Forest Service (USFS), and recovery was slow and difficult to measure. The tension between grazing permittees and federal land agencies ignited in the mid-1970s due to the completion of the “Hot Desert” Environmental Impact Statement and the listing of the Mojave Desert Tortoise as a threatened species (Robinson et al., 1991), which closed grazing allotments and forced some ranchers out of business.

Federal grazing allotments on the Arizona Strip were passed down or sold through generations of livestock producers and represented not only economic viability but also the ability for them to maintain a traditional ranching lifestyle. Land management agencies and ranchers requested Utah State University (USU) Extension and the University of Arizona (U of A) Cooperative Extension collaborate to provide science-based education to improve knowledge of the issues and relationships among all parties. This has led USU and U of A Cooperative Extension to initiate targeted workshops aimed at resolving these tensions through informed dialogue and mutual understanding.

The first workshop aimed at bridging the educational gap and lack of understanding between grazing permit holders and federal agencies was held in 1978 and continues after 45 years, reaching over 11,500 participants in that time. The perception, knowledge, and attitudes differ between government agency employees and ranchers leading to continued misunderstandings and conflict among these groups (Garn, 2019). The Arizona/Utah (AZ/UT) Range Livestock Workshop & Tour, often referred to as the range livestock workshop, provides unique programming that promotes mutual understanding for agency personnel and ranchers to understand and appreciate both the policy and physical implementation of public land grazing. Because of the longevity of the program, the demographics and technological understanding of the participants have changed and evolved.

The age of American farmers and ranchers is increasing at a much higher rate than the rest of the labor force, and it is increasingly important to educate this older population of ranchers and reach the succeeding generation, who have differing experiences and modes of learning (Bailey et al., 2014). Maintaining the momentum of a successful program over 45 years is fraught with challenges, as it must continually adapt to evolving issues, advancing technologies, and shifting participant demographics.

Evaluation of each workshop and tour generates valuable feedback and guidance, which are essential for meeting participants' needs. This input comes from a diverse committee of organizers representing academia, government agencies, private businesses, and ranchers. Their collaborative efforts have shaped a structured, multi-day workshop that consistently addresses about ten significant challenges related to livestock grazing policy and production. The workshop spans two days, alternating between the east and west sides of the Arizona Strip, followed by a third day dedicated to a tour that showcases grazing allotments and practices, offering informal education opportunities. Over the past six years, these workshops have attracted more than 400 in-person participants annually, with attendance numbers returning to pre-Covid levels in 2022 and 2023.

### **Response & Target Audience**

The objective of the Arizona/Utah (AZ/UT) Range Livestock Workshop & Tour is to enhance livestock production practices and profitability, promote sustainable management of public grazing lands, and foster constructive relationships between livestock producers and government agencies. Leveraging science-based knowledge and collaborative efforts with private industry and government agencies, the workshop tackles controversial topics such as national monument designation. This approach fosters a non-confrontational learning environment that enhances interactions between ranchers and public land managers while also addressing practical issues such as animal disease or beef quality assurance to educate agency personnel about the challenges faced by livestock producers. The tour provides a hands-on experience for participants to observe and discuss range improvements, interact directly with agency representatives and peers, and practice advanced livestock handling techniques.

Since its inception in 1978, the program has expanded to include annual workshops held alternatively in Kane and Washington counties, Utah, during the last week of March or the first week of April. Each session follows a consistent agenda over two days, culminating in a field tour on the third day. These workshops feature eight to ten expert presentations from Extension faculty, ranchers, government officials, and industry professionals, complemented by industry-sponsored exhibits.

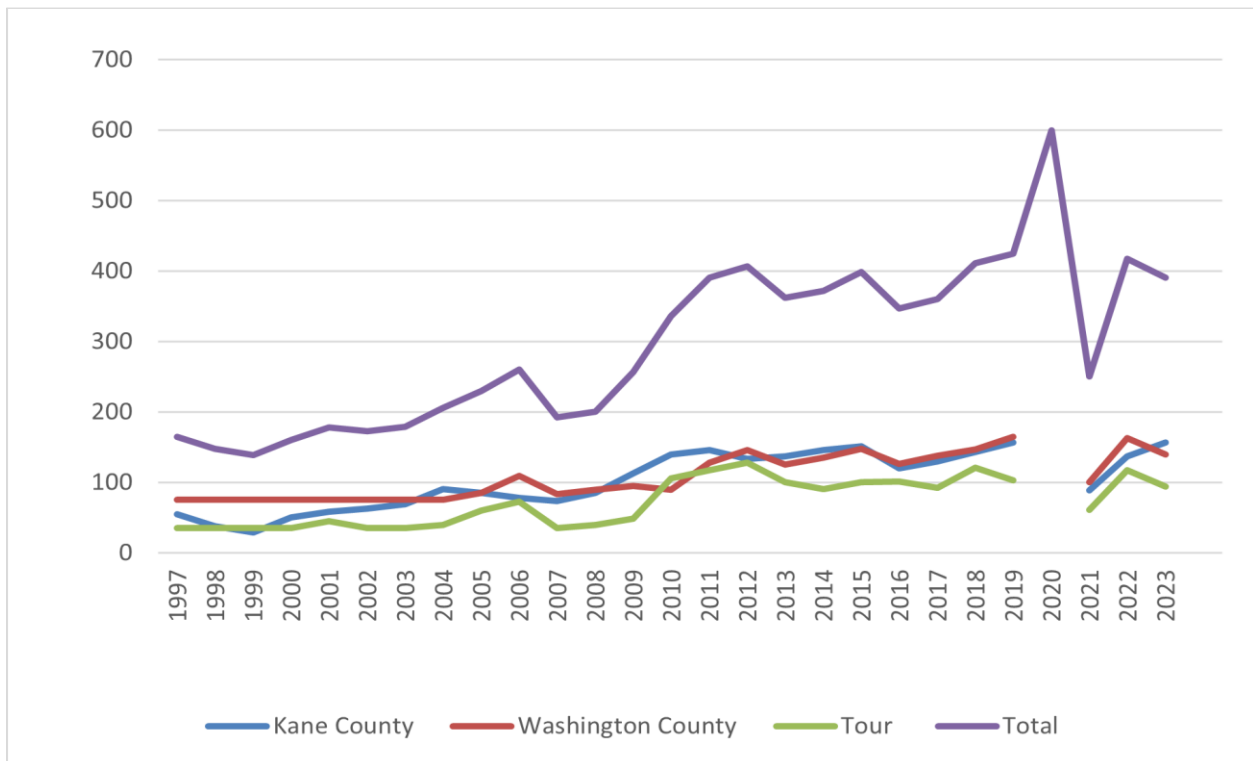
The primary audience of these workshops includes holders of grazing permits on the Arizona Strip, ranchers, agency personnel involved in public land grazing management, and students interested in grazing in livestock production. The AZ/UT Range Livestock Workshop & Tour is a free in-person event funded by industry sponsors and local natural resource conservation districts. While the 2020 workshop was conducted online, leading to increased attendance, feedback indicated a strong preference for in-person interactions, which remain the norm. The workshop and tour are advertised each year through county Extension Facebook pages and other

social media platforms, an email list of past participants, and a mailing list of Arizona Strip grazing permittees.

The Arizona Strip's geographical location, situated between the Grand Canyon and the southern Utah border, means that most attendees are Utah residents, although 5-10% of participants travel from Arizona or Nevada annually. In-person attendance peaked at 425 in 2019 and returned to similar levels in 2022 and 2023 (see Figure 1). A slight decrease in attendance in 2023 can be attributed to an unexpected April snowstorm.

**Figure 1**

*AZ/UT Range Livestock Workshop & Tour attendance in each location since 1997*



*Note:* Attendance was in person, except in 2020, which was in virtual format only.

### Outcomes & Impact

The AZ/UT Range Livestock Workshop & Tour has been the longest-running multi-state Extension-sponsored workshop in the western United States for over 45 years. This longevity highlights the program's effectiveness and impact on participants, particularly ranchers, who have noted significant improvements in grazing management plan development through these recurring workshops. Ranchers and agency personnel develop these plans collaboratively, drawing from a shared knowledge of livestock management.

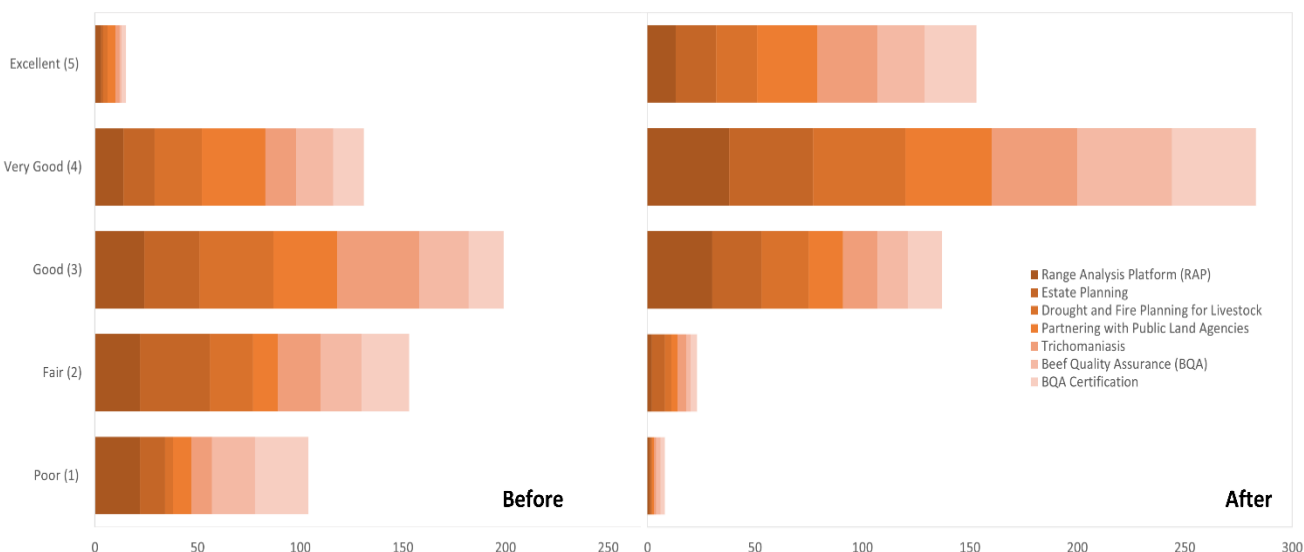
Since 1978, the workshop has engaged more than 11,500 participants, including 2,792 in the last eight years alone, thereby sustaining an educational and cooperative environment for Arizona Strip permittees and government agencies. Survey data indicate that 45% of

respondents have attended the workshop for six years or more, with another 20% participating for over ten years, underscoring the program’s ongoing relevance.

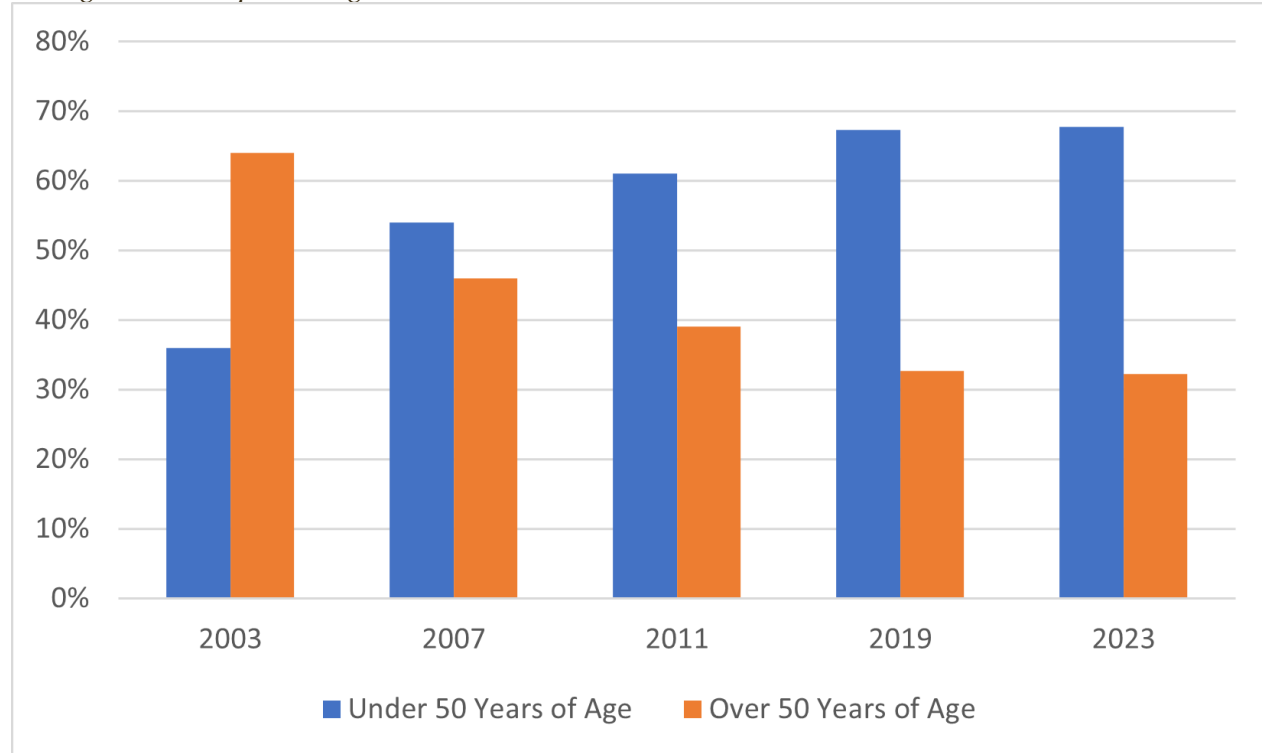
Annual retrospective evaluations reveal insights into the program’s impact and effectiveness. In 2023, 91% of respondents reported gaining new skills, and 81% felt the workshop altered their opinions and attitudes. The average workshop quality was highly rated at 4.2 out of 5, and the tour received 4.8 out of 5 in the same year, demonstrating the program’s consistently high caliber relevance. Furthermore, evaluations showed a knowledge increase from a pre-workshop rating of 2.65 (Fair understanding) to 3.9 (Good understanding) post-workshop, mirroring the results from 2019. In 2023, 89 participants ( $n = 89$ ) completed a survey assessing their understanding of range livestock workshop topics. Figure 2 provides more details of learning outcomes on the topics presented.

**Figure 2**

*Participants’ Knowledge of Workshop topics before and after participation*



In 2005, the majority of participants were 55 and older. In efforts to engage future generations less likely to utilize Extension programming, the planning committee has actively recruited younger ranchers and extended invitations to local 4-H, FFA, and college students, with a notable 68% of 2023 attendees under the age of 50 (See Figure 3).

**Figure 3***Change in Participants' Age Characteristics since 2003*

Evaluations further emphasize the workshop's value, with over 95% of ranchers affirming economic benefits. Since 2015, participants have represented the management of over 53,000 heads of cattle and reported information gained from the workshop would increase the net profit of their operation by an average of \$5,915. Qualitative feedback from participants indicates that the workshop has led to enhanced record-keeping, improved production and profitability, better nutrient management, enhanced animal handling techniques, and more effective pasture rotation, especially during drought conditions. Additionally, since 2006, participants have partnered with the Bureau of Land Management (BLM) and the Natural Resource Conservation Service (NRCS) on projects across over 27,000 acres of private, state, and federal land that conserved water and improved the landscape for wildlife and livestock. This collaborative success stems from the strong working relationships between ranchers and federal land agency personnel.

In 2023, 142 respondents intended to share the knowledge they gained with 1,704 others. One high school teacher, a decade-long participant, noted, "I am an ag teacher; it is good information to teach my students," highlighting the educational ripple effect of the workshop.

### **Public Value & the Next 45 Years**

The evaluation results of the AZ/UT Range Livestock Workshop & Tour emphasize the benefits of enhancing participants' knowledge and fostering cooperative understanding between livestock practices and government policies. These assessments demonstrate the workshop's public value, as evidenced by its enduring appeal and continued interest. In

response to the poor outcomes of online instruction at the range livestock workshop, which was first utilized in 2020, future programs will exclusively offer in-person participation to maintain engagement and effectiveness.

Given the large number of participants at the workshops, economical venue options in Washington County are limited. To ensure the best experience for participants, planning committee members will secure a suitable venue the year prior to an event.

As with any evolving program, there is potential for improvement. While over half of the farms in the United States have a female producer making decisions about the farm's operation (USDA, 2017), participation by women in the range livestock workshop has stagnated at 20-30% over the past decade. To address this, the program will focus on recruiting more female participants by appealing to their interests and providing incentives for them to attend. Additionally, there will be a concerted effort to attract more students to the workshop, thereby nurturing interest in the livestock industry, Extension services, and public land management. The effectiveness of these recruitment strategies will be continually assessed.

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.

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