
IDAHO RANGE LIVESTOCK SYMPOSIUM

JANUARY 2020

A one-day traveling symposium and networking event—packed with information on industry-relevant topics for producers and rangeland managers.



Adapting to a Changing Rangeland Environment



Idaho Locations

- January 6: American Legion Hall, Marsing
- January 7: CSI Herrett Center, Twin Falls
- January 8: Bannock County Veterans Memorial Building, Pocatello
- January 9: BYU Idaho Ag Science Center, Rexburg

AGENDA

9:00 am	Registration	
9:30 am	Kit Pharo—Pharo Cattle Company <i>“Ranching Made Profita-BULL, Enjoya-BULL and Sustaina-BULL”</i>	Page 4-5
10:30 am	Idaho State Department of Agriculture—Range Program, <i>“Cooperative Photo Monitoring”</i>	Page 6-7
10:45 am	Break—Demonstration of Monitoring Tools	
11:15 am	Dr. Jim Sprinkle—UI Extension Beef Specialist <i>“Strategic Supplementation and Fitting Cows to the Rangeland Environment”</i>	Page 8-9
11:55 am	Video Vignettes—University of Idaho Faculty Dr. Courtney Conway, Dr. Jason Karl Dr. Katie Lee, Dr. John Hall.....	Page 10-11
12:15 pm	Lunch	
1:00 pm	Dr. April Hulet—UI Extension Range Specialist <i>“Using Dormant Season Grazing to Preemptively Manage Sagebrush Plant Communities and Alter Fire Behavior”</i>	Page 12-13
1:45 pm	Dr. Jason Ahola—Colorado State University and Scott Jensen—University of Idaho Extension <i>“Value of Beef Quality Assurance (BQA) Certification”</i> .	Page 14-15
2:15 pm	Break—Demonstration of Monitoring Tools	
2:45 pm	Kit Pharo—Pharo Cattle Company <i>“Genetic Selection”</i>	Page 4-5
3:30 pm	Adjourn	

SPONSORS

This symposium would not be possible without our sponsors, THANK YOU for supporting the Idaho Range Livestock Symposium!

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KIT PHARO

Kit Pharo started out in 1985 by leasing grassland and buying cows. In the beginning, he strived to build a herd that would wean bigger calves. He quickly learned that increasing weaning weights did not increase profit. Therefore, Kit changed his management style to be profit-driven instead of production-driven. He implemented management practices that reduced and eliminated expenses while implementing ways to increase beef production per acre – as compared to beef production per cow.

During the last 35 years, Kit has grown his ranch into a very profitable family operation. Pharo Cattle Company produces and markets over 1000 forage-developed bulls every year. Over the years, Kit has come up with several no-nonsense ways to put profitability back into ranching. He is internationally known as a successful rancher and businessman. He publishes a quarterly newsletter that is sent out to over 22,000 people. He also sends out weekly emails to over 17,000 people. To subscribe to his free newsletters and emails, call 800-311-0995 or send your request to Kit@PharoCattle.com.

**Ranching Made Profita-BULL, Enjaya-BULL,
and Sustainable-BULL**

Genetic Selection

What is the ISDA Range Program?

The Idaho State Department of Agriculture (ISDA) Range Program provides support, coordination, and expertise to private and government rangeland managers and users for the planning and management of vegetation and other rangeland resources utilizing the best available science and best management practices.

Range Management Program Staff



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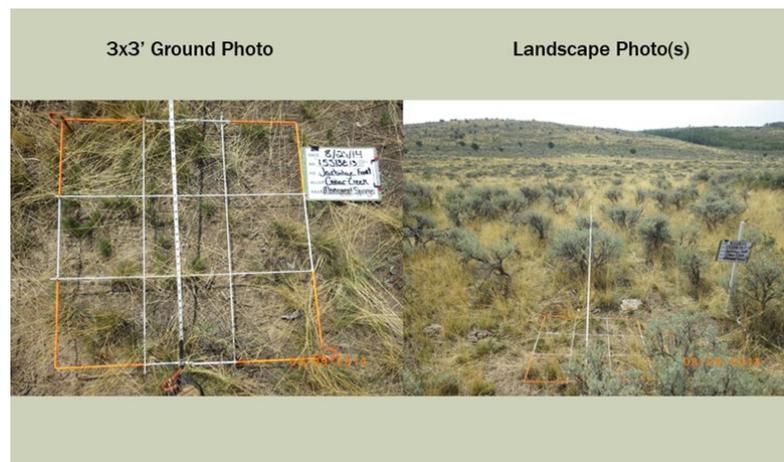


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What is Cooperative Photo Monitoring?

Photo Monitoring is monitoring that ranchers can readily perform on an annual basis. Photos can show positive measurable and observable changes in vegetation, which is the definition of significant progress in the Bureau of Land Management (BLM) Idaho Standards and Guidelines for Rangeland Health. The ISDA/BLM Cooperative Photo Monitoring program is a golden opportunity for BLM grazing permittees to engage with the monitoring and assessment of their grazing allotment(s) and the permit renewal process. This program provides specialized training in scientifically valid monitoring procedures.

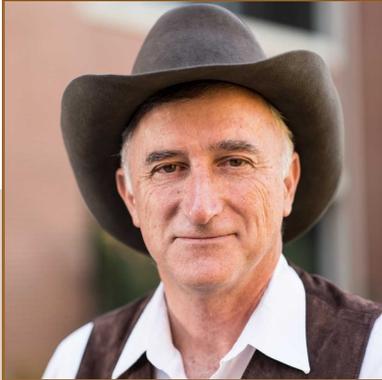
In 2014, the ISDA and BLM entered into a Memorandum of Understanding (MOU) for photo monitoring on public lands administered by the BLM. This MOU set in place a framework for ISDA to aid permittees in collecting photo point data on allotments for use in future BLM land health assessments and analysis for grazing permit renewals. The ISDA and BLM collaborate with and assist ranchers in performing monitoring using the methods identified in the MOU. ISDA, BLM, and ranchers coordinate to obtain copies of photo data currently existing in an allotment and determine if these monitoring sites are adequate or if additional sites need to be established. The ISDA provides training to permittees according to the MOU protocol during the first year a rancher participates in the program, and then ranchers or their representatives conduct annual repeat photography. Photos are submitted to BLM and ISDA to be verified and used as monitoring data in the grazing permit renewal process. Continuous years of photo monitoring data that is collected consistent with BLM policy helps fill data gaps and “tell a story” about how an allotment is responding to management and other factors over time. ISDA believes that with the strong collaborative approach that this photo monitoring program provides, land management agencies will be better equipped to make well-informed decisions that are supported with good, current monitoring data, all while facilitating the exchange of producer information and knowledge regarding the management of their individual allotment during permit renewal.



The Cooperative Photo Monitoring App

It is a priority of the ISDA Range Program to advocate the use of the most current monitoring procedures and tools. We are excited to offer the use of a mobile app to optimize the ISDA/BLM cooperative photo monitoring program.

The Survey123 app for ArcGIS is a simple and user-friendly tool that aids in streamlining data collection and analysis. It is as simple as downloading the free app, accessing the ISDA monitoring form, collecting your data, and hitting submit. No paper forms or emailing pictures necessary. Just complete the form in the app and it will do the rest!



DR. JIM SPRINKLE

Jim Sprinkle was raised on a livestock farm in Southwestern Va., received an Associate degree in horsemanship and stable management at Ricks College in 1980 and was in the horse business for 8 years before going back to school at age 33. He received a B.S. in Animal Science from BYU, a M.S. in Animal Science from Montana State University, and a Ph. D. in Animal Nutrition from Texas A & M University. Research at both MSU and TAMU was with range cattle and encompassed range animal nutrition and forage intake, grazing behavior, and physiological and genetic adaptations to a range environment. Dr. Sprinkle was employed as an Area Extension Agent, Animal Sciences, regional livestock specialist, and county extension director by the University of Arizona over 20 years and retired in 2015. In 2015, Dr. Sprinkle started work as a statewide Extension Beef Specialist with the University of Idaho, working out of the Nancy M. Cummings Research Extension and Education Center in Carmen, Idaho. He has a 30% research and a 70% Extension appointment with an emphasis in beef cattle range nutrition. His major research emphasis is in grazing behavior, forage intake, beef cattle efficiency, and range animal nutrition. He also participates in rangeland monitoring and adaptive management Extension programming. A collaborative rangeland monitoring program, *Reading the Range*, received the Western Extension Directors Association Award of Excellence and was part of the National Rangeland Research and Development Award presented by the US Forest Service to the University of Arizona. In 2011, a research team he led won the Applied Animal Science Award from the Western Section, American Society of Animal Science for beef cattle trace mineral research on Arizona rangelands. Dr. Sprinkle is the recipient of the *Extension Award* from Western Section, American Society of Animal Science, the *Professional and Technical Guidance Award* from the Arizona Section of the Society for Range Management, and both the *Achievement* and *Distinguished Service Award* from the National Association of County Agricultural Agents. Jim is married to the former Barbara Joan Duell who grew up on a cattle ranch in Alberta, Canada. Jim and Barbara have 7 children and 11 grandchildren.

Strategic Supplementation and Fitting Cows to the Rangeland Environment

For details, see additional handout

GROUSE AND GRAZING

This 10-year study is exploring the effects grazing have on sage-grouse habitat.

Learn more: Annual reports, project updates and site descriptions available online:

www.idahogrousegrazing.wordpress.com



DR. COURTNEY CONWAY

Courtney is the unit leader of the Idaho Cooperative Fish and Wildlife Research Unit. Growing up, he spent many of his weekends camping, hiking, backpacking, and climbing in OH, KY, and WV. He was motivated to find a career where he could continue to do these activities as part of his job, while contributing to science. His research interests include wildlife management and conservation biology.

Contact: cconway@uidaho.edu

RangeSAT

Using GPS collars on cattle, researchers can evaluate field observation techniques and create utilization maps with satellite data.

Learn more: *Satellites on the Homestead* article, December 2, 2019.

www.ibest.uidaho.edu/news.php?



DR. JASON KARL

Jason is the Harold F. and Ruth M. Heady Endowed Chair of Rangeland Ecology in the Department of Forest, Rangeland, and Fire Sciences at the University of Idaho. He has over two decades of experience working in the field of rangeland management for private, non-profit, and government organizations, and his research focuses on how rangeland monitoring information is collected and used to support management decisions.

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RANGELAND ECONOMICS

Studies include grazing in riparian allotments, economic feasibility of spring grazing, metrics for drought resistance

Learn more: These projects are in the beginning stages. Please contact Katie directly for more details.



DR. KATHERINE LEE

Katherine is an applied natural resource and environmental economist. Her research is highly interdisciplinary, using economic and ecological concepts in mathematical models and empirical analyses to explore feedbacks between human and natural systems.

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SYSTEMS COMPARISON

This project compares productivity of cows and calves in range and irrigated cow/calf systems. Using the open range at Rinker Rock Creek Ranch and the irrigated system at the Nancy M. Cummings Research, Extension and Education Center, John and his team are quantifying reproductive development, carcass quality, fetal programming and other physiological ramifications of each system on livestock. Once completed, this research will have to management and economic implications.

Research Updates: www.uidaho.edu/research/entities/rock-creek.



DR. JOHN HALL

John is the superintendent at the Nancy M. Cummings Research, Extension and Education Center, which is the University of Idaho's primary cow/calf and forage research center. John's program conducts applied research to enhance food production and sustainability of beef production operations.

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DR. APRIL HULET

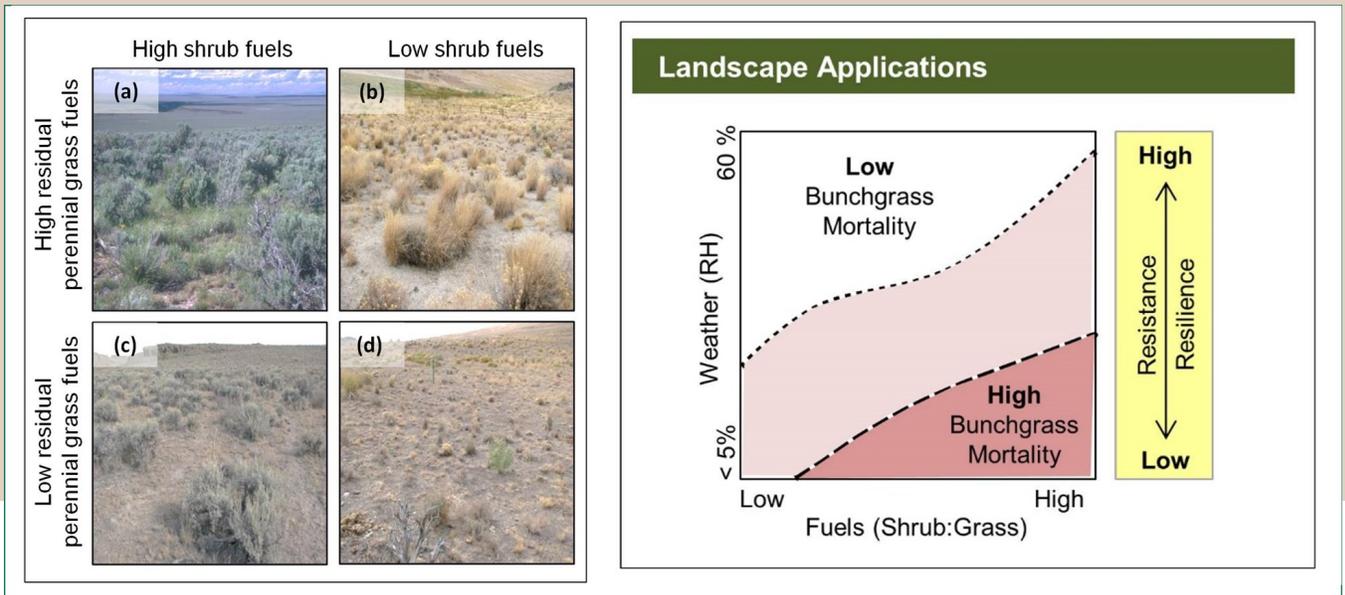
April has worked for the University of Idaho, College of Natural Resources since 2015 in the Forest, Rangeland, and Fire Sciences department. In January 2017, April Hulet began a new role as the Range Extension Specialist located in Boise. Prior to coming to Idaho, she was a post-doctoral Rangeland Ecologist with the USDA-Agricultural Research Service in Burns, Oregon. She received her MS and PhD from Brigham Young University in Wildlife and Wildland Conservation while working as the Utah woodland site manager for the Sagebrush Steppe Treatment Evaluation project (www.sagestep.org). Her primary research focuses on sagebrush steppe restoration after disturbance using various seeding methods (including seed enhancement technologies), and understanding mechanisms by which fire affects bunchgrass plants in Wyoming big sagebrush plant communities, including the evaluation of fine fuel reduction treatments via winter grazing and shrub manipulations treatments.

Using Dormant Season Grazing to Preemptively Manage Sagebrush Plant Communities and Alter Fire Behavior

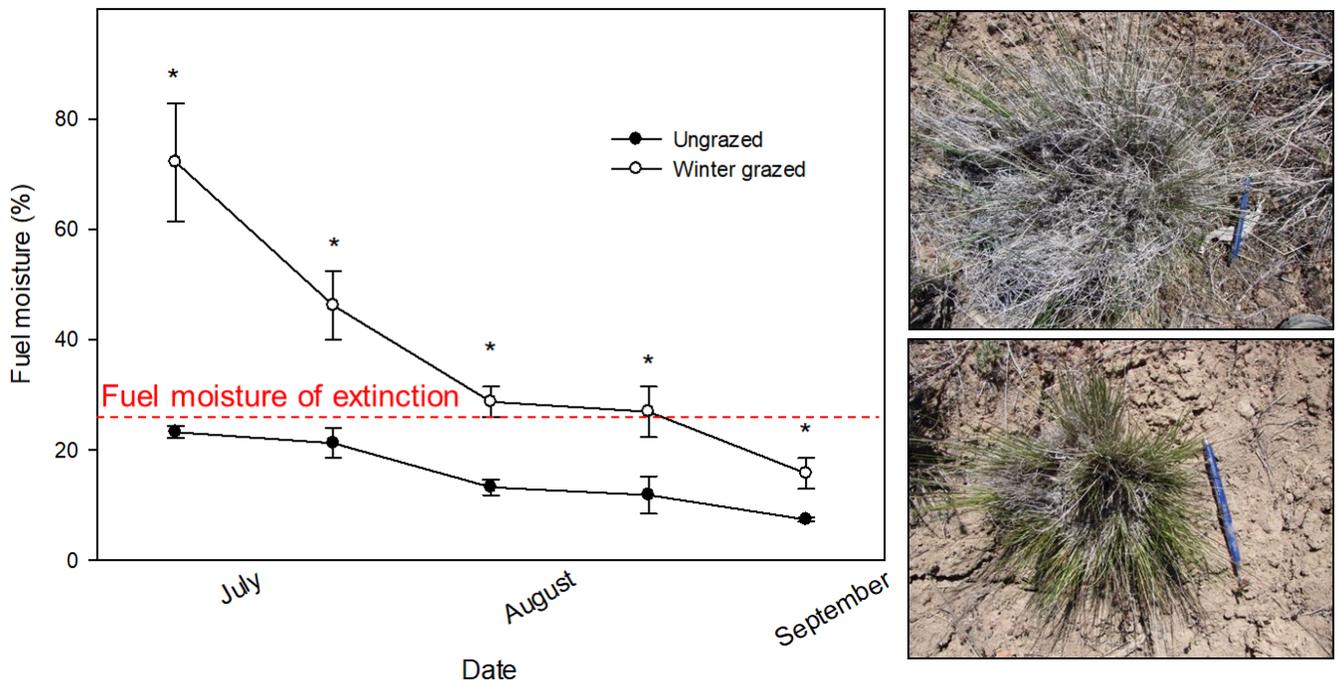
Western rangelands are currently under severe threat from exotic annual grasses. To successfully manage rangelands that are either infested with or susceptible to exotic annual grasses, we must focus on increasing resilience to disturbance and resistance to exotic annual grass invasion.

Here, we present fuel-based research for Wyoming big sagebrush rangelands that focuses on increasing resilience to fire and resistance to exotic annual grasses through the maintenance of perennial bunchgrasses. We quantified pre-burn shrub fuel loads and its impact on fire-induced perennial bunchgrass mortality. Results suggest that bunchgrass plants within sagebrush canopies were exposed to lethal temperatures ($>50^{\circ}\text{C}$) longer than bunchgrass plants found in the interspace. Plots with greater sagebrush fuel loads, were more likely to create fire conditions severe enough to kill bunchgrass plants both within shrub canopies as well as interspace plants. Additionally, we evaluated the influence of dormant-season grazing by cattle on fuel characteristics, fire behavior, and perennial bunchgrass mortality. Dormant-season grazing decreased fine fuels and increased fine fuel moisture, which reduced flame height and depth, rate of spread and area burned. Grazed areas also had lower maximum temperature and heat loading during fires than ungrazed areas, and thereby decreased risk of fire-induced bunchgrass mortality.

As we increase our understanding regarding the influence of fuel loads on bunchgrass mortality and wildfire risk, we can better prioritize Wyoming big sagebrush plant communities where pre-emptive restoration practices can be implemented.



Hulet, Boyd, Davies and Svejcar (2015) Prefire (Preemptive) Management to Decrease Fire-Induced Bunchgrass Mortality and Reduce Reliance on Postfire Seeding. *Rangeland Ecology and Management*
DOI: 10.1016/j.rama.2015.08.001



Davies, Boyd, Bates and Hulet. 2015. Dormant season grazing may decrease wildfire probability by increasing fuel moisture and reducing fuel amount and continuity. *International Journal of Wildland Fire*
DOI: 10.1071/WF14209



DR. JASON AHOLA

Dr. Jason Ahola serves in a teaching, research, and outreach role at Colorado State University. His courses range from freshman-level introductory Animal Sciences to the senior-level Beef Systems capstone. He also supervises the Colorado Beef Quality Assurance (BQA) Program and its coordinator, and conducts applied beef cattle research. Recent projects have included evaluating BQA implementation by cow/calf producers, reproductive management of commercial cows, evaluating alternate beef production systems to improve beef production efficiency, financial and performance benchmarking of cow/calf operations to improve breakeven price, management-intensive grazing practices under center-pivot irrigation, and animal welfare related to management practices such as castration, branding, and weaning. Prior to joining CSU, he previously worked for the University of Idaho as an Extension Beef Specialist in Caldwell, Idaho as well as for Leachman Cattle Company and the Red Angus Association of America.



SCOTT JENSEN

Scott Jensen is an Extension Professor and educator in Owyhee County, Idaho. He conducts applied research and Extension programs in beef and dairy cattle, range, and pasture management as well as 4-H youth development. Scott co-coordinates the Idaho Beef Quality Assurance (BQA) program and collaborates with team members to conduct the longstanding Lost Rivers Grazing Academy. Scott also teaches beef/dairy cattle artificial insemination (AI) classes annually and provides BQA, AI, milker and calving schools in Spanish.

Scott has been recognized with several national Extension awards including the Distinguished Service Award from the National Association of County Agriculture Agents in 2016. Scott has a M.S. in Agricultural Education from the University of Idaho in 2000 and a B.S. in Animal Science from Brigham Young University in 1989. Scott and his wife Sharla have been married for 30 years and have 8 children.

Value of Beef Quality Assurance (BQA) Certification

Effect of Mentioning Beef Quality Assurance (BQA) in Lot Descriptions of Beef Calves and Feeder Cattle Sold Through Video-based Auctions on Sale Price¹

Jason Ahola* and Dan Mooney**

Departments of *Animal Sciences and **Agriculture and Resource Economics, Colorado State University, Fort Collins, CO 80523

For years, BQA certification has helped beef producers market their cattle, demonstrate commitment to food safety and quality and emphasize the importance of responsible cattle management, care, and animal handling. However, while producers have traditionally participated in Beef Quality Assurance (BQA) because it's the right thing to do, there is evidence that BQA certified producers can benefit financially as well. The goal of this study was to determine if sale prices of beef calves and feeder cattle marketed through video auction companies were influenced by the mention of BQA in the lot description. Partnering with Western Video Market, CSU reviewed data from 8,815 video lot records of steers (steers, steer calves and weaned steers) and heifers (heifers, heifer calves and weaned heifers) sold in nine western states from 2010 to 2017.

Results of the study revealed a premium of \$16.80/head for cattle that had BQA listed in the lot description compared to no mention and holding other factors constant. This value was determined by applying the \$2.71/cwt premium found in CSU's statistical analysis to the average weight of cattle in the study data. When the BQA premium was constant on a per head basis, it implied higher weight-based premiums for lighter cattle (for example \$3.73/cwt at 450 lbs./head) and lower premiums for heavier cattle (\$2.24/cwt at 750 lbs./head).

Additional study findings showed that over the past 10 years, consistent frequency of BQA mentions were included in the lot descriptions of cattle selling via video auctions. In some states, like Montana, the frequency of mentions has been fairly sizable and upwards of 10 percent or more of all lots of calves/yearlings offered for sale. Even without documentation of a premium in the past, the results imply that over time many producers have proactively chosen to highlight and emphasize their participation in BQA when marketing their cattle.

There's a great advantage in communicating and sharing BQA certification status to potential buyers. Results of the BQA study suggest that video auction customers are willing to pay a premium for cattle coming out of BQA certified operations. In fact, the premium for cattle with a BQA mention existed even with other value-added programs included in the lot description (such as age/source verification, lot characteristics, verified natural certification, etc.). Study results indicate that BQA certification is truly valued as buyers look for cattle raised by producers who are well educated in BQA best management practices. The study also emphasizes the benefits of tracking BQA certification in lot descriptions so that studies can be continuously conducted to show the monetary premium of cattle in the marketplace. By obtaining BQA certification, producers can benefit from the economic value of committing to the fundamental principles of quality beef production.

Funding provided by beef producers and the \$1-per-head beef checkoff via the National Beef Quality Assurance Program

THANK YOU

for attending the
Idaho Range Livestock Symposium

If you have
questions or comments,
please contact us.

Scott Jensen

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Symposium Partners and Planning Committee

Partners: University of Idaho Extension, College of Agricultural and Life Sciences, College of Natural Resources, and Rangeland Center; Idaho State Department of Agriculture, Idaho Rangeland Resources Commission, Idaho Department of Lands, Idaho Cattle Association, and the Natural Resources Conservation Service.

Planning Committee: Sarah Baker, Brendan Brazee, Melinda Ellison, Benton Glaze, Danielle Gunn, John Hall, April Hulet, Gretchen Hyde, Brooke Jacobson, Scott Jensen, Jason Laney, Rebecca Mills, Les Nunn, Joel Packham, Travis Pehrson, Samantha Roberts, Tyanne Roland, Jim Sprinkle, Carmen Stevens, Austin Terrell, Tate Walters, Carmen Willmore, Karen Williams, Shannon Williams.

