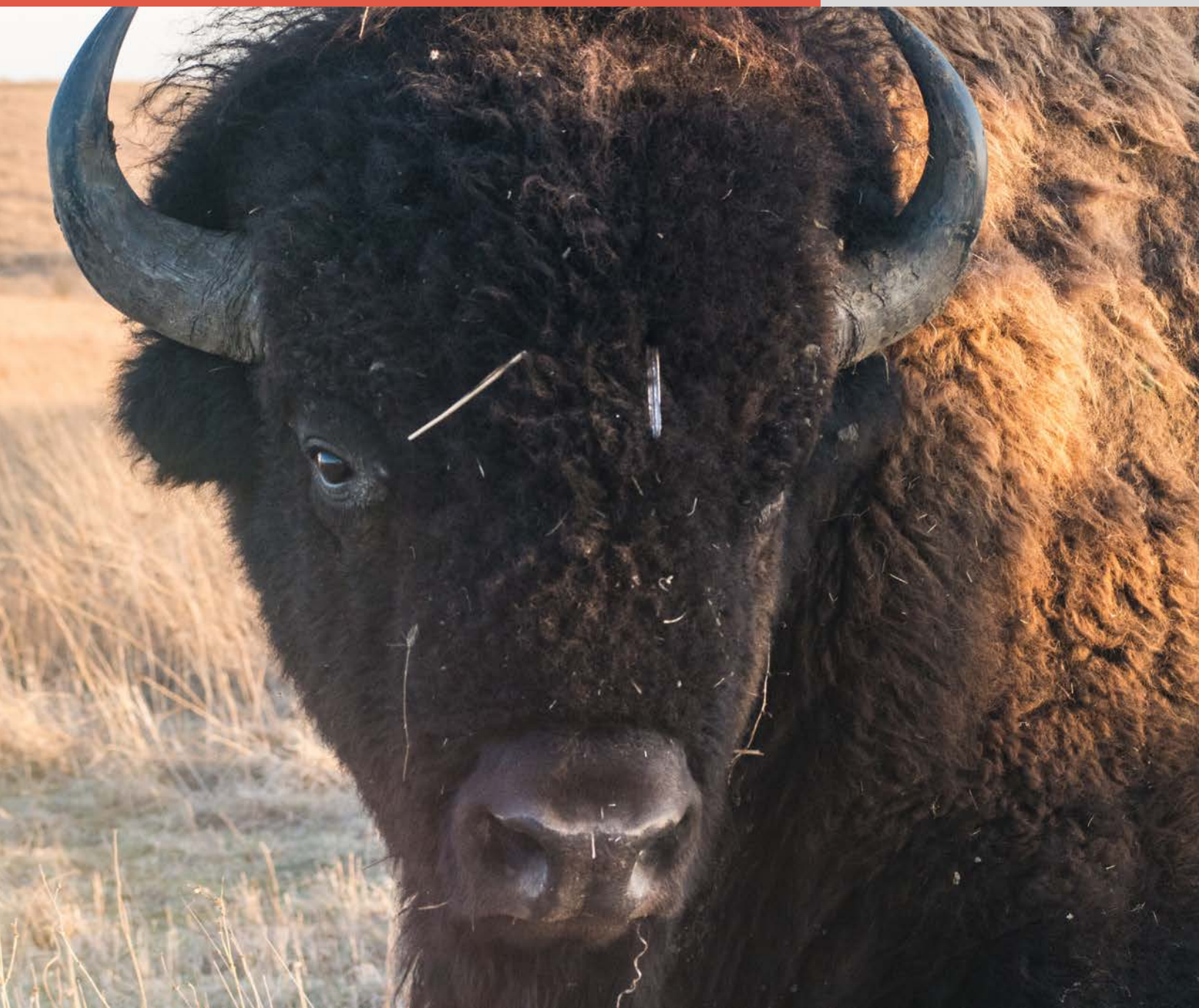


BISON WORKER SAFETY & HERD HEALTH ROUNDTABLE

MARCH 26, 2019
OMAHA,
NEBRASKA



ROUNDTABLE PARTICIPANTS

Arnell Abold, InterTribal Buffalo Council
Athena Ramos, Central States Center for Agricultural Safety and Health (UNMC)
Badir Alhemayyed, University of Nebraska Medical Center
Christina Topliff, University of Nebraska School of Veterinary Medicine
Clayton Kelling, University of Nebraska School of Veterinary Medicine
David Carter, National Bison Association
Don Woerner, American Bison Center
Ellen Duysen, Central States Center for Agricultural Safety and Health (UNMC)
Eric Selchert, InterTribal Buffalo Council
Jacob Salter, Crane Trust
Jill Oatman, Central States Center for Agricultural Safety and Health (UNMC)
Joshua Wiese, Crane Trust
Kerman Kills Small, Ogalala Sioux Parks and Recreation Authority
Kevin Belt, Ogalala Sioux Parks and Recreation Authority
Lee Jones, US Fish and Wildlife Service Wildlife Health
Lucy Finocchiaro, Central States Center for Agricultural Safety and Health (UNMC)
Mafany Ndiva Mongoh, Sitting Bull College
Mary Miller, The Nature Conservancy
Megan Davenport, InterTribal Buffalo Council
Michael Thompson, Ogalala Sioux Parks and Recreation Authority
Milton Around Him, Ogalala Sioux Parks and Recreation Authority
Patrick O'Neal, Konza Prairie Biological Station, Kansas State University
Risto Rautiainen, Central States Center for Agricultural Safety and Health (UNMC)
Robert Goodman, Ogalala Sioux Parks and Recreation Authority
Steve Coon, Dept of Biological Sciences, Fort Peck Community College
Taylor Little Whiteman, Ogalala Sioux Parks and Recreation Authority
Todd Wyatt, Central States Center for Agricultural Safety and Health (UNMC)
Tom Fast Wolf, Ogalala Sioux Parks and Recreation Authority
Zintkala Eiring, InterTribal Buffalo Council



ROUNDTABLE AGENDA



**University of Nebraska
Medical Center™**
BREAKTHROUGHS FOR LIFE.™

Bison Worker Safety & Herd Health Roundtable

March 26, 2019

Holiday Inn – Downtown, 1420 Cuming St, Omaha, NE 68102

Agenda

Time	Topic	Presenter
8:00	Breakfast	Holiday Inn Downtown/Airport
9:00	Introductions & Welcome	Ellen Duysen <i>University of Nebraska Medical Center</i> Christina Topliff <i>University of Nebraska – Lincoln</i>
9:30	InterTribal Buffalo Council	Arnell Abold <i>InterTribal Buffalo Council</i>
10:00	Break	
10:15	Worker Safety Project Overview	Risto Rautiainen & Lucia Finocchiaro <i>University of Nebraska Medical Center</i>
11:15	Bison Handling Facility Discussion	Mary Miller <i>Ordway Prairie</i> Michael Thompson <i>Oglala Sioux</i>
12:00	Lunch	Holiday Inn Downtown
1:00	Low-Stress Handling Research	Jacob Salter & Joshua Weise <i>Crane Trust</i>
2:00	Worker Orientation Practices	Lee Jones <i>USFWS Wildlife Health</i>
2:30	Herd Health	Don Woerner <i>American Bison Center</i>
3:30	Break	
3:45	Roundtable Discussion of Best Practices	All
4:45	Surveys & Evaluation	All
5:00	Adjourn	

Thank you to everyone who presented and contributed to the First Annual Bison Worker Safety and Herd Health Roundtable. Strong partnerships were established, valuable knowledge was shared and great ideas were brought forth for the 2020 roundtable.

INTRODUCTION

Bison production in the United States has increased due to a rising demand for bison meat and the re-establishment of Native American bison herds. Larger herd sizes, increased handling and transporting of animals and in some instances an inexperienced workforce have led to greater risk exposure to bison workers. In an effort to reduce these risks the Central States Center for Agricultural Safety and Health has partnered with the University of Nebraska School of Veterinary Medicine and the InterTribal Buffalo Council to research bison worker hazards and provide education and guidance on best practices to bison herd managers throughout the United States.

With the goal of collecting information on current handling practices and safety concerns, experts were brought together for a roundtable meeting held in Omaha Nebraska, March 2019. Participants included tribal and non-tribal bison herd managers, worker safety experts, researchers and other stakeholders. Expert speakers presented topics including Worker Safety, Bison Handling Facilities, Low Stress Handling Research, Training Workers, Herd Health and Best Practices. The roundtable discussion focused on Bison handling during roundups and current methods used by herd managers to keep workers safe. A survey of participants was designed to provide a better understanding of the perception of risk and worker training needs. A program evaluation was also conducted. The following summary highlights the roundtable discussion and the results of the participant survey.



PERCEPTION OF RISK, INJURIES AND HAZARDOUS TASKS

Participant Survey

100% of the survey participants believed that bison handlers are at risk of being injured while working with bison.

Roundtable Discussion.

Common Injuries

- Broken fingers and broken arms
- Needle sticks while vaccinating or medicating
- Falls from the catwalk
- Fingers pinched in chute or gate
- Injuries from slips, trips and falls on ice and wet surfaces

Hazardous Tasks

- Pregnancy testing of bison is a particularly dangerous activity
 - Broken arms
- Chute work
 - Workers' fingers crushed after being hit by the horn of a bison while in the chute or from an inexperienced worker grabbing the horn of a bison
- Moving bison into the chute
 - Slips and falls while moving animals, especially when it is icy or muddy
- Any task that a new worker conducts
 - Need to fit the task to the competencies of the worker



Participant Quote: "Our culture glorifies danger of working with bison and the image of the wild west. This may lead beginner bison handlers and the general public to believe that occurrences such as stampedes and high stress situations are the normal, when in reality most workers promote a safe, low stress environment for the bison and workers."

TRAINING

Participant Survey

Training

- 56% of participants conduct bison worker safety trainings.
- 81% believe that there is a need for safety trainings for bison handlers.

Training topic preferences

- Maintaining proper environment for low stress bison handling (81%)
- Low stress bison handling techniques (81%)
- Safe use of animal medication and needles (69%)
- Use of proper personal safety equipment (44%)
- Safe use of all terrain vehicles (ATVs) (38%).

Training style preferences

- Use of training manuals (69%)
- Use of distance learning (videos and webinars) (62%)
- Professionals training onsite (44%)
- Other methods - not specified (19%)

Roundtable Discussion

New Workers Training

- Important to match the level of worker experience with assigned tasks.
- Those who are new to bison handling should be first placed in jobs that require little training such as opening and closing gates.
- It is beneficial to help teams of handlers, especially beginners, to start with small challenges and work slowly towards larger challenges. This could help build confidence and prevent workers from becoming stressed.
- It would be helpful to have handlers come out to train and work the bison ahead of time (about 2 weeks earlier) especially if they are new to working with them.



PERSONAL PROTECTIVE EQUIPMENT (PPE)

Unique hazards associated with bison handling include the large size of the animals, lack of domesticity, cold, dusty and possibly icy environmental working conditions and, in some cases, facilities in need of updates. The use of personal protective equipment should be considered to reduce the risk to worker's eyes, lungs, hands, feet and skin,

Participant Survey

- 77% of participants agreed that workers should be wearing leather gloves and closed toed shoes
- 77% of participants agreed that workers should be wearing protective eye cover
- 39% of participants agreed that workers should be wearing a dust mask/ respirator in dusty conditions
- 14% of participants have fire extinguishers onsite



LOW STRESS HANDLING

Participant Survey

- 92% of survey participants believe that bison handlers need training in how to implement low stress bison handling techniques.
- 42% of participants indicated that they personally understand low stress techniques and how to implement and utilize them.

Roundtable Discussion

Reducing fear through familiarization and positive experiences

- Allow bison to pass in and out of corrals until they are calm
- Bait bison with hay
- Consider the type of fencing that is used

Walk through corrals multiple times before working the animals to ensure everything is working properly

- Decrease excess noise and objects that might scare bison
- Work to reduce shadows and eliminate blowing objects

Choose less people, but the right people

- Have sorting sticks available but not carried by workers
- Only use sorting sticks when needed

Don't rush or force bison and end things on a positive note

ATV

Roundtable Discussion

Participants indicated that they believed that their workers know how to use ATVs safely.

Participants indicated that they do not have safety rules around the use of personal protective equipment on ATVs (helmets, gloves, goggles). There was general agreement that these rules would be useful and help with increasing the use of safety equipment.

ATVs are beneficial for hauling equipment out to the handling facilities but should not be used during the roundup to drive bison.

If terrain is challenging, fewer ATVs are recommended.



ENVIRONMENT AND FACILITIES

Participant Survey

- **88% of participants stated that their equipment needs repair and/or modification.**
- 31% of participants stated that lighting and shadows presented a problem when trying to move animals through the chute.
- 38% stated that slips, trips, and falls were a risk because round-ups take place outside and often in bad weather.
- 38% indicated that there are not enough resources to eliminate slip, trip, and fall hazards.
 - Supplies and equipment (such as sand for icy walking surfaces) are needed to eliminate these hazards.
- 38% stated that handlers know dust can be hazardous to their health, but do not take advantage of safety interventions (such as wearing PPE) to prevent possible adverse health effects.
- 32% said that handlers do not know dust can be hazardous to their health.
- 32% stated that there is nothing handlers can do to decrease the amount of dust present at roundups and during handling.

Roundtable Discussion

Low-cost methods to improve safety of bison and bison workers

- A walk through and cleaning of the facility before and after handling
- Creating a plan in case of emergency
- Portable fencing within the facility so that changes can be made if herd managers would like to try different set-ups to improve animal flow
- Removing catwalks
- Leaving animals such as dogs at home or in a separate area

ROUNDTABLE EVALUATION

An evaluation survey was given to the attendees at the end of the meeting.

- 94% of participants would attend another bison worker safety event
- 94% indicated that they would be able to implement something they learned during the event into their herd health and worker safety practices including information on low-stress handling and worker orientation practices
- Comments included a statement that the participant would like more tribal bison herd representation at the event
- Feedback also revealed that participants appreciated the time that was given for discussion and would like to have more time at the next roundtable



Join us for the 2nd Annual Bison Worker Safety and Herd Health Roundtable April 30 & May 1, 2020 Rapid City, South Dakota



Document prepared by Central States Center for Agricultural Safety and Health
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