ANIMAL BEHAVIOR & HANDLING

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This presentation is sponsored by the USDA Beginning Farmer and Rancher Development Program
OBJECTIVES

• Understand animal behavior
• Apply behavior knowledge to handling to reduce stress on animal
• Understand corral layout
• Increase handling efficiency
UNDERSTANDING BEHAVIOR IMPROVES

- Handling stress
- Worker safety
- Animal welfare
  - Design production systems where animals express natural behaviors
WHAT BEHAVIORS DO YOU ASSOCIATE WITH FARM ANIMALS?

- Dogs
- Sheep
- Chickens
- Swine
- Goats
- Cattle
BEHAVIOR EXAMPLES

- **Dogs**: show pack behavior
- **Sheep**: graze and stay together
- **Chickens**: have pecking order
- **Pigs**: root in dirt
- **Goats**: curious browsers known for escaping from pens
- **Cattle**: graze indiscriminately
TYPES OF BEHAVIOR

- Communication
- Aggression and social structure
- Biological rhythms and sleep
- Sexual behavior
- Maternal behavior
- Ingestion
- Development and learning
- Disorders
WHY IS HANDLING NEEDED?

- Slaughter, milking
- Breeding, move to new location, veterinary care
- Habituate animals to accept restraint voluntarily
- Transport and slaughter
ANIMAL TEMPERAMENT

- Breeds
  - *Bos indicus* (Zebu), such as Brahman cattle, are more temperamental than *Bos Taurus* (typical cattle of Europe, north-eastern Asia, etc.)

- Individuals
  - Temperamental individuals can disrupt others
  - Consider culling
FLIGHT ZONE
The distance a handler can approach an animal before it moves away

**FLIGHT ZONE AND POINT OF BALANCE.** To move a single animal forward, the handler must be behind the point of balance and stay out of the blind spot directly behind the animal. When the handler is close to the animal, the point of balance is at the shoulder. When the handler is farther away, the point of balance may move forward to just behind the eye. When the handler is on the outer edge of the pressure zone, the animal becomes aware of the handler’s presence and turns around and looks. When the outer-most edge of the flight zone is penetrated, the animal moves away.

http://www.grandin.com/behaviour/principles/flight.zone.html
USE KEY CATTLE BEHAVIORS FOR HERDING

1. Cattle want to see you.
   Work animals from the side instead of from behind in their blind spot.
   If working from behind, stay in their line of sight by moving from side to side; this keeps them from turning.

2. Cattle want to go around you.
   Position yourself so that after they go around you, they are pointed directly at the intended destination.

3. Cattle want to be with other cattle.
   Herding is natural among “prey” animals.
   Work from the front of cattle herd. Start from the front and the back will follow.

4. Cattle want to return to where they have been.
   Useful for turning cattle in curves or return boxes.
LOW-STRESS METHOD EXAMPLES

- Methods of Bud Williams
- Create and control movement by applying pressure and releasing
- Handler moves in and out of flight zone
- Work in triangles and straight lines instead of arch
- Use patience
- Incentives:
  - Call cattle
  - Cattle that are rotated frequently to fresh pasture may move due to incentive
  - Offer alfalfa pellets
HERDING ON PASTURE

http://www.grandin.com/behaviour/principles/flight.zone.html
HERDING IN OPEN PASTURE

- Two handlers work herd

- Speed up herd: Handlers walk in opposite direction of desired herd movement within flight zone

- Slow down herd: Handlers walk in same direction of desired herd movement outside of flight zone

http://www.grandin.com/behaviour/principles/flight.zone.html
Moving Cattle Into a Pen

- Handler controls flow of cattle through gate
  - Cattle movement can be slowed or speeded up by moving forward into flight zone or backward

http://www.grandin.com/behaviour/principles/flight.zone.html
HANDLING IN CONFINED CORRALS

- Cattle may not be able to move away from handler to remove pressure
- Solid sides help reduce distraction (or use people-free zones)
- Head gate is necessary to restrain cattle
- Squeeze chute helps manage activities and injections
CATTLE FLOW IN CORRALS

Areas are needed for activities such as holding, sorting
RETURN BOX CORRAL

- Example of a low-cost corral

- Small “return” box can replace a crowd tub

- Appalachian State University (ASU) Farm example using “Bud Box”
  - Designed to handle 4 animals at a time (20 ft alleyway)
ASU FARM CORRAL

52 ft; 12-ft gates

Return box
12 x 20 ft

Man gate

20 ft crowd alley

Holding
15 x 20 ft

ASU FARM CORRAL

40 ft

8 ft

20 ft crowd alley

52 ft; 12-ft gates

Return box
12 x 20 ft

Man gate

20 ft crowd alley

Holding
15 x 20 ft

ASU FARM CORRAL

40 ft

8 ft
BUD BOX DEMONSTRATION

Source: https://www.youtube.com/watch?v=aniUeugrm8Y&feature=related
SWEEP CORRALS

Many corrals use a forcing gate to push cattle in the crowd tub into an alley.

Inexpensive wood slat set up
Remodeled Cattle Handling Facility

https://www.slideshare.net/Wiscbeefinfo/tips-for-creating-beef-cattle-handling-facilities
TEMPLE GRANDIN

- Internationally-known animal welfare scientist
- Well-known handling facility designs
- See trailer for feature film highlighting her explanations of animal handling perceptions
  - [https://www.hbo.com/movies/temple-grandin](https://www.hbo.com/movies/temple-grandin)

Photo by Alison Bert
GRANDIN HANDLING
FACILITY FEATURES

- Curved alleyway
  - Cattle can’t see what is ahead
- Solid sides
- Work cattle from outside alleyways and pens

Good Design Principles

1. Cattle in a crowd pen can see a minimum of 2 body lengths up the chute.
2. Cattle make a 180° turn through the crowd pen and think they are going back to where they came from.
POINT OF BALANCE

Handler movement pattern to move animals forward in alley to the squeeze chute

http://www.grandin.com/behaviour/principles/flight.zone.html
HANDLING PRACTICES

- Move small groups
- Eliminate electric prods; use other driving aids such as flags
- Eliminate visual distractions
- Reduce noise
- Handler movement patterns
  - Slow is faster
- Restraint: Slow steady movements
- Secure footing, less than 20 degree ramps
- Train handlers

DRIVING AIDS

http://www.grandin.com/behaviour/principles/prods.html
Reduce visual distractions and uneven lighting

http://www.grandin.com/behaviour/principles/distraction.html
Leaving objects, such as hats and jackets on fences can distract livestock and scare them.
APPLICATIONS

- Cattle handling methods can be applied to other animals, such as sheep and goats
- Smaller corrals can be built with low-cost materials, such as pallets
- Homemade head gates
- Horns are a concern
REFERENCES & RESOURCES

TEMPLE GRANDIN WEBSITE
• www.Grandin.com

BUD WILLIAMS METHODS AND BUD BOX
• www.stockmanship.com
• http://stockmanship.com/?p=1096

CATTLE HANDLING POINTERS

CORRAL DESIGN IDEAS
• https://www.slideshare.net/Wiscbeefinfo/tips-for-creating-beef-cattle-handling-facilities

PHOTOS FROM GOOGLE IMAGES
This presentation was prepared through a collaboration effort and funded by the Beginning Farmer and Rancher Development Program

**USDA-NIFA-BFRDP 2017 – 01804**

The following institutions and agencies helped to develop and prepare this educational material:

- Dr. Dan Donoghue
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- Lauren Manning
- Dr. Komala Arsi
- Dr. Annie Donoghue
- Dr. Joan Burke
- Dr. Phillip Moore
- Dr. Amanda Ashworth
- Margo Hale
- Dr. Michael Gold
- Dr. Anne Fanatico
- Dr. Ondieki Gekara

This presentation is part of an educational modular program designed to provide new and beginning farmers and ranchers with relevant information to initiate, improve and run their agricultural operations.