

LIVESTOCK

Behavior and Welfare



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SECTIONS

Section 1: Health Management and Disease Prevention

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INTRODUCTION

The well-being and welfare of livestock is directly related to the livestock production, health, and presentation of natural behaviors. Animal well-being considers the animal's physical, mental, and emotional state. Whereas, animal welfare focuses on the physical conditions and treatment of the livestock. Producers who care for livestock must learn about, understand, and implement animal well-being and welfare practices.



Understanding the basics of livestock behavior and welfare is important. Livestock are unpredictable, never let your comfort and familiarity put you or livestock in danger. Livestock are prey animals and under duress will engage in their fight-or-flight response. Many livestock handling concepts are similar across species; this includes cattle, sheep, swine, chickens, and horses. You will learn that each animal has different needs related to handling, and it may be necessary to step away from a situation, and re-evaluate your approach to the situation.

How To Get Started

Livestock that are well-cared for are more productive and healthy. Stressed animals may have compromised immune systems, making them more susceptible to disease and require more care, and possibly veterinary intervention. They also tend to have lower reproductive rates, reduced feed efficiency, and slower growth rates.

Understanding livestock behavior and implementing low-stress handling techniques will make you a more effective producer. When you can read livestock body language and respond appropriately to their needs, daily tasks become easier and safer.

Today's consumers are increasingly conscious about how their food is produced and are willing to pay premium prices when producers prioritize animal welfare. Additionally, major retailers and food service companies are establishing animal welfare standards that suppliers must meet to maintain market access.

Farms built on good animal welfare practices tend to be more resilient and sustainable over time. These operations may have lower veterinary costs, reduced mortality rates, and better relationships with neighbors and the community. Producers are also positioned to adapt to changing regulations and consumer demands.





SECTION 1

Behavior and Welfare

Assessing animal welfare and well-being

There are several frameworks that individuals use to assess animal welfare and well-being, and each has their own advantages and disadvantages. Listed below are a few of the frameworks that you can explore to gain a better understanding of how animal welfare and well-being can be assessed. These frameworks are best used as guiding tools to inform decision-making on farms and in livestock care settings.

1. The Five Freedoms and Provisions – John Webster

2. The Five Domains

3. The Welfare Quality Assessment System

Key terms for understanding animal handling

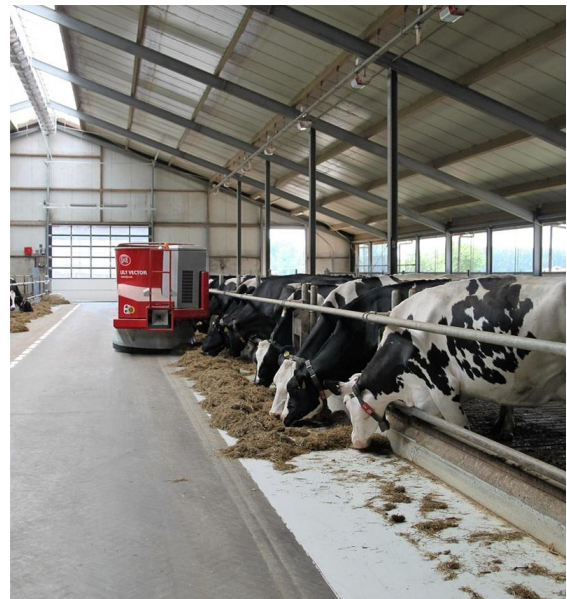
Zone of Awareness: When the animal turns to face a person and acknowledges their presence, but the person is not yet close enough to incite movement.

Flight Zone: The area in which a person enters that causes livestock to move in the desired direction. The size of the flight zone is species-dependent & is influenced by previous experience.

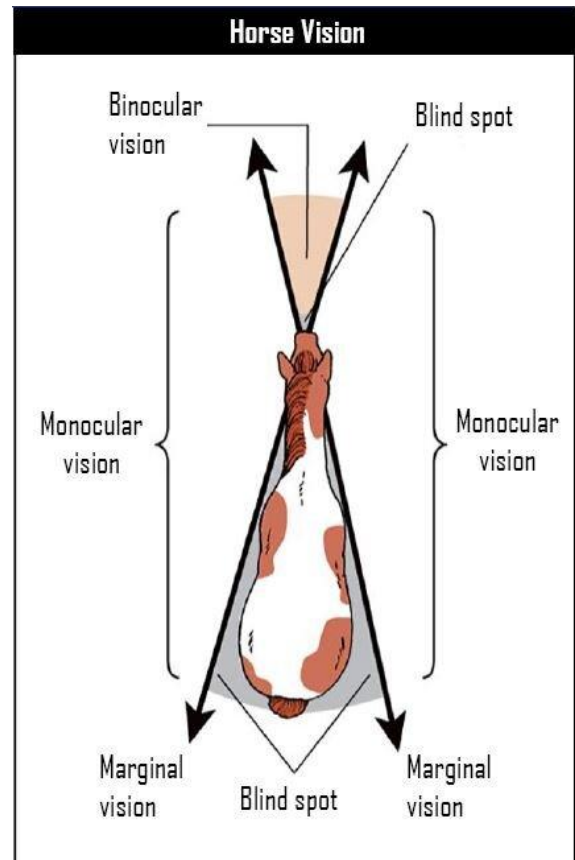
Point of Balance: Usually at the animal's shoulder. When you cross this threshold, you cause the animal to stop or change direction.

Balking: When animals stop abruptly and refuse to move.

Rushing livestock, especially when stressed, will only make livestock movement more difficult. In a high-stress state, animals hide injury/pain and protect themselves by kicking, biting, clawing, etc. When working with a group of livestock, moving in a zig-zag motion behind the group uses a pressure and release method. [This article](#) goes into depth and provides visual examples of animal handling concepts.



The following figures show a horse and cow's visual range, including their blind spots. They also show an example of flight zone and point of balance. These diagrams aid in teaching these concepts but each animal will have their own level of comfort and should be handled with respect and caution. When working with a group of livestock, the same flight zone and point of balance concepts apply; the flight zone of a herd or flock will depend on the individual animal with the largest flight zone. Using a back and forth zig-zag motion and multiple people may be more effective in working with large groups of livestock.



Merck Veterinary Manual

Figure 1 (above). Diagram of vision for horses from Merck Veterinary Manual.

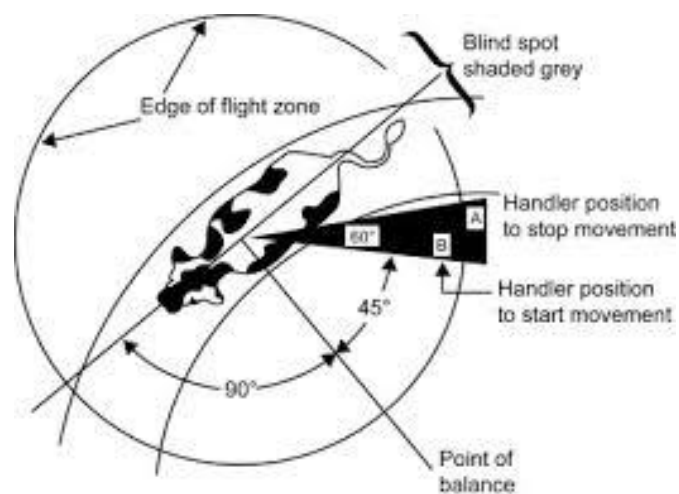


Figure 2 (right). Diagram of flight zone, point of balance, blind spot, and handler position for moving cattle by Dr. Temple Grandin.

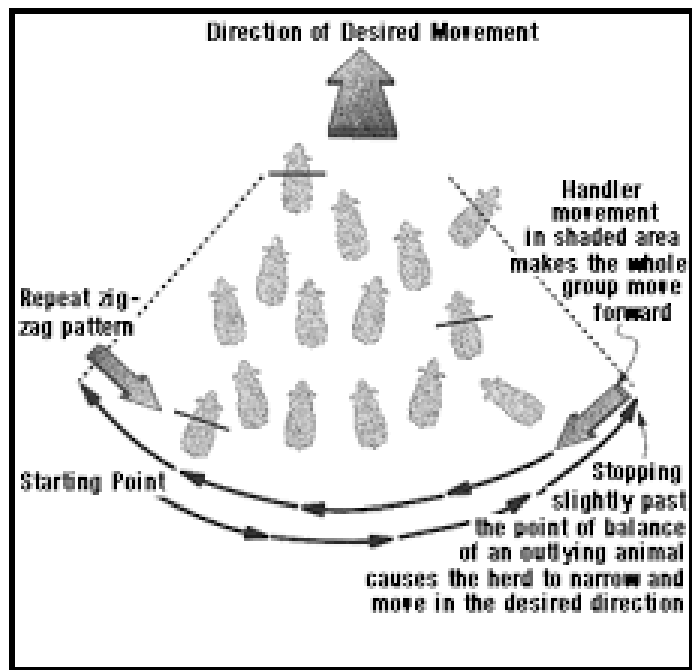


Figure 3 (right). Demonstration of Zig Zag cattle group movement by Dr. Temple Grandin.

Troubleshooting Livestock Movement Issues

What do you do when livestock do not want to move or do not go in the direction you want them to?

- Plan out the route of movement in advance and remove any obstructions or barriers.
- Look for potential injury hazards such as holes, debris, slick spots, narrow areas, or sharp turns.
- Look at the environment and try to see what the animal sees
 - Other people within the flight zone
 - Distracting sounds and sights
 - Objects affecting movement (chains, barriers, broken fences, ropes, etc.)
 - Hard angles – cows like soft turns as their bodies are better suited for that
 - Drastic changes in lighting – bright outside and dark inside or vice versa.
 - Headlights
 - Shadows
 - Moving livestock in complete darkness
 - Glares bouncing off vehicles, equipment, tools, etc.
- A change in flooring will slow down the movement of livestock.
 - When working with livestock, provide non-slip flooring, if possible.
- Allow the leader to investigate an area

Quality Assurance Programs

Quality assurance programs provide education on animal care and management standards and may be required for some markets. Animal care standards are reviewed regularly and are based on scientific evidence. Some examples of animal care standards are:

1. FARM Animal Care Program

2. Beef Quality Assurance

3. Pork Quality Assurance

4. Sheep Quality Assurance

Low-Stress Handling

Low-stress handling of livestock a skill that is learned through experience and practice. Livestock recognize people and remember those who work calmly. Some initial points to remember when working with livestock are:

- Herd animals will follow one another.
- Livestock want to return to the place they feel safe and are most comfortable.
- Animals speak with their body language – head movement, ears, and posture can indicate the animal's level of stress.
- An isolated animal can be more stressed.
- Livestock are more likely to approach calm people.



Loading and unloading livestock can cause stress. [This article](#) covers trailer ramps, chute designs, and some facility designs that can be used to reduce stress.

[Low-stress restraint](#) is another component of management. The restraint area may need to be used throughout multiple phases of an animal's lifetime and producers should aim for it to be as positive of an experience as possible.

Process for Getting Started

Expand your knowledge on what low-stress livestock handling techniques. Always focus on remaining calm while handling livestock. If you become overwhelmed when working with livestock, step away, calm yourself, and come back later. Livestock may have environmental preferences; for example, livestock prefer to move to light and open spaces.





BEHAVIOR AND WELFARE

COMMON QUESTIONS

01

How do I move livestock in the direction I want them to go?

Use the animals point of balance and flight zone to get the animals to move in the direction you want them to go. Remember that livestock prefer to move in well lit spaces with no sharp corners, minimal obstructions, and minimal flooring changes.

02

Why are my animals afraid to go into the chute or barn?

Animals prefer to move into light, open areas. Consider adding a bright light to the area in which you are trying to move them.

03

How do I stop my livestock from jumping and falling out of the trailer when I unload them?

Always allow animals to load and unload in their own time. Make sure that the flooring provides adequate traction, add light and additional gating if necessary.

04

Why should I care about animal welfare?

The well-being and welfare of livestock is directly related to the livestock production, health, and presentation of natural behaviors.

05

Can I keep only one animal?

Most livestock are herding animals and prefer others of their own species as company.

Necessary resources and Partners – Please see Livestock Resources and Partners Appendix at the end of this chapter.