

Low Stress Livestock Handling

Using a low stress approach to handling cattle will be easier on them, and on you. The benefits of this method include a reduced chance of injury to the animals as well as their handler, calmer animals that are easier to manage, and a more productive herd. An animal handled gently is more content and will feed better, resulting in increased performance. But, low stress handling can only be achieved by understanding the animals and training them to do what you want them to do – rather than you reacting to them.

Cattle can become excited in a few seconds, but require 20 to 30 minutes for their heart rate to return to normal. The degree of stress an animal experiences is related to its familiarity and comfort with people and the quality of handling – easy and quiet as opposed to forceful and loud, for example. In addition, each animal has its own personality resulting from genetics and previous life experiences.

Push, release and reward and a refined sense of timing are the tools a respectable livestock handler employs.

Five Natural Instincts

Cattle react based on five natural instincts as described in Table 1. A handler must be aware of what actions trigger an instinctive response, and how to deal with each.

Table 1: The Five Natural Instincts

Instinct	Situation that Challenges Instinct	Cattle Reaction	Safe Handling Technique
Herding: Herding offers shelter and safety from predators.	Singling out the animal	Can make the animal anxious, lonely or depressed	Limit the time that an animal is alone. If an animal must be separated, keep the herd nearby. Move the animal slowly with minimal noise.
Habitual: Comfort is derived from routine.	Dairy cows are not allowed to enter the barn for milking	Cattle may become frightened or agitated.	Maintain a routine for the animals.
Flight: The flight zone is considered a safe, personal space.	Movement towards an animal in a corral	Cattle move away to keep you out of their flight zone.	To prevent the animals from bolting, don't penetrate too deeply into the flight zone. Proper, patient use of this zone will help you move the cattle where you want them.
Territorial: Animals are attached to their own territory and derive comfort from this area. Male animals dominate an area.	Moving animals off of a well-worn path or removing a bull from its pen.	An animal may protect its territory. This is compounded by the insecurity of being removed from the herd.	Try not to separate or move animals at feeding time. Never turn your back on bulls or on anxious animals.
Maternal: Cows normally protect their young from danger. They sometimes do this prior to calving, too.	Removing a calf from a cow.	A normally docile animal may become aggressive and could kick or charge.	Do not go between a mother and its young. When entering a pen, if possible, separate the mother in a nearby holding area. Anticipate aggression.

Note: This table is based on a chart developed by the Institute of Agricultural Rural and Environmental Health in Saskatchewan.

All animals are unpredictable and each reacts differently. Aggression in cattle can be triggered by yelling, whistling, erratic movements and waving arms. Moving cattle into an area unfamiliar to them will also trigger this response. Shades of light, shadows, new and unfamiliar objects, enclosed spaces, and restraint and ground conditions are critical factors in triggering natural fear and flight responses. Never turn your back on an aggressive or anxious animal! Signs of aggression are characterized by dropping the head, turning to the side, pawing, raised ears, snorting, quick and erratic movement and a raised tail.

Behavior Principles for Handling

The low stress approach to handling cattle is based on a knowledge of their natural instincts, and on an awareness of an animal's point of balance, its field of vision and its flight zone. Understanding these is crucial to creating, stopping and directing movement.

Point of Balance

A cow's point of balance is at the shoulder. The animal will move forward if the handler stands behind the point of balance; and backward if the handler is ahead of the point of balance. In the diagram below (Canadian Federation of Agriculture) the point of balance as well as angles to start and stop movement are marked by letters A and B.

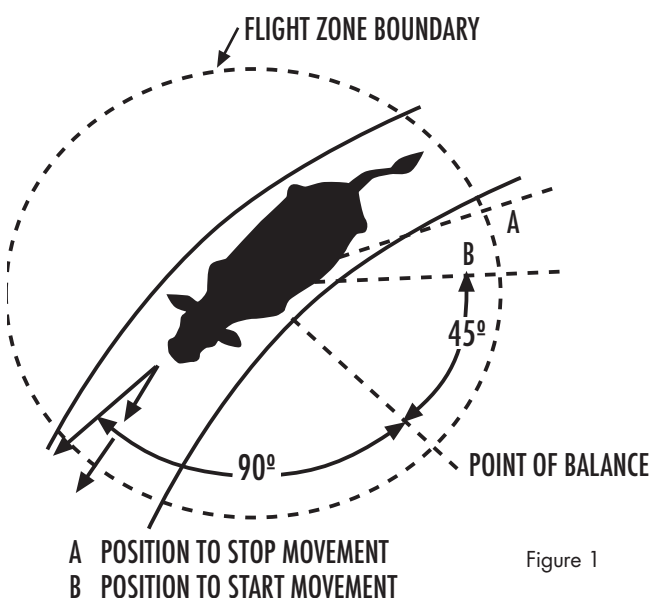


Figure 1

Field of Vision

A cow can see nearly 90 per cent of the area around her. The only "dead spot" in her vision is directly behind her, in the area between the hips. Imagine a straight line from the animal's eye to the pin bone. The animal can see everything outside this angle – disappear behind the hip past this line and they are unable to see you. The most common mistake made by handlers is inadvertent entry into the blind spot. Inevitably this causes cattle to stop and 'hook' – meaning they will turn to see you and stop.

When a group of animals move, they maintain visual contact with each other. This enables the herd to stay together. An animal following another will move within position A and B. The dominant strong animals will be at the core of the herd, while the weaker will remain more peripheral.

Flight Zone

An animal's flight zone is its personal space. Entering the flight zone will cause an animal to move away in an attempt to maintain the distance between the intruder and itself. The size of the flight zone will vary depending upon the animal. Animals that are used to close contact with humans such as those raised in a feedlot, or dairy cattle, will have a smaller flight zone than animals raised in an open pasture. Genetics may also make an animal more cautious about contact with humans. Recognizing the size of the flight zone helps to control how the animal will move.

The handler must be close enough to the animal to make it move, but not so close as to cause it to panic and flee. If cattle move too fast, back out of their flight zone – if they slow too much – gently move back into the flight zone. Give the signal and reward the behavior by releasing pressure.

Entry and exit of the point of balance and pressure to and from the flight zone is shown in Figures 2 and 3.

A crowd pen should only be one-third or one-half full to allow cattle to find a point of exit more easily. If exit points are clearly lit and no handlers or 'strange objects' (a jacket flapping in the wind, for example) are visible within the flight zone at the exit points, cattle will flow freely in the desired direction.

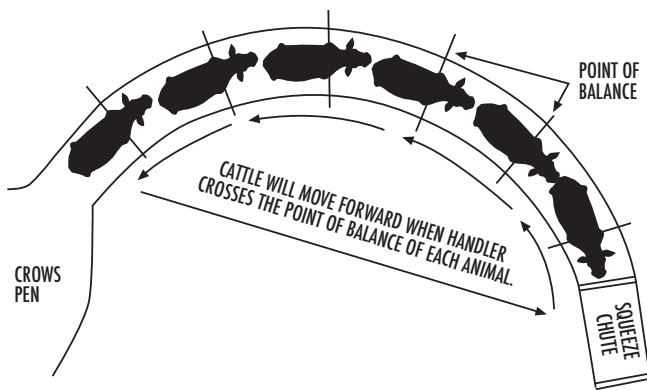


Figure 2

The handler in Figure 3 is simulating predatory movement in order to first create herd cohesion and then create herd movement. This is done by moving across at a 90-degree angle to the direction of desired movement.

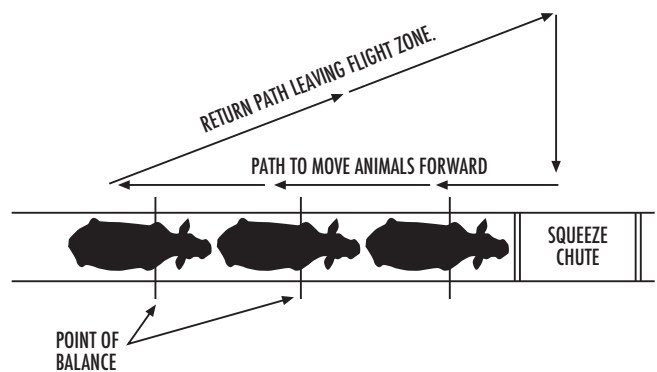


Figure 3 source: Division of Media and Technology, University of Saskatchewan.

Troubleshooting Handling Problems

To solve a handling problem, first determine the cause of the problem. Difficulties can arise from any one of the following factors:

1. Facility design problem – for example a dead-ended chute.
2. Dark spots in the chute cattle are expected to enter or moving into a dark building.
3. Too many animals in the crowding pen. Fill it no more than one-half full.
4. Handlers are frightening and scaring the animals.
5. Problems in animal temperament due to genetics.
6. Open or lighted spot directly beside exit point of crowding pen causing a distraction.
7. Animals stop movement because something appears unfamiliar to them, for example, a coat draped over a post.

Two greats of animal handling are Bud Williams and Dr. Temple Grandin. Their practices and principles in understanding low stress handling of livestock are far-reaching. Much of the information in this fact sheet is a result of their research. More information may be obtained by visiting the following websites.

www.grandin.com; Livestock Behaviour, Design of Facilities and Humane Slaughter; Dr. Temple Grandin.

www.managingwholes.com; Low stress cattle handling; Bud Williams.

**For more information on low stress livestock handling,
contact your local Manitoba Agriculture, Food and Rural Initiatives office
or visit us online at manitoba.ca/agriculture/production**

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