

LOW STRESS LIVESTOCK HANDLING

By Jane Murrigan

Good stockmanship leads to improved health and increased production in livestock, as many studies have shown.

A successful livestock handler is gentle, observant and patient. Low stress livestock handling also depends on being well prepared and having an animal-friendly handling facility.

Preparation begins with getting animals used to people, equipment and facilities well ahead of the time. Once animals have had a good experience and learn that they are not going to get hurt in the process, habituation occurs. This makes it easier on humans and animals when the 'real deal' comes to pass.

Reducing stress in a handling situation means no yelling or loud noises, two actions that stress livestock a lot.

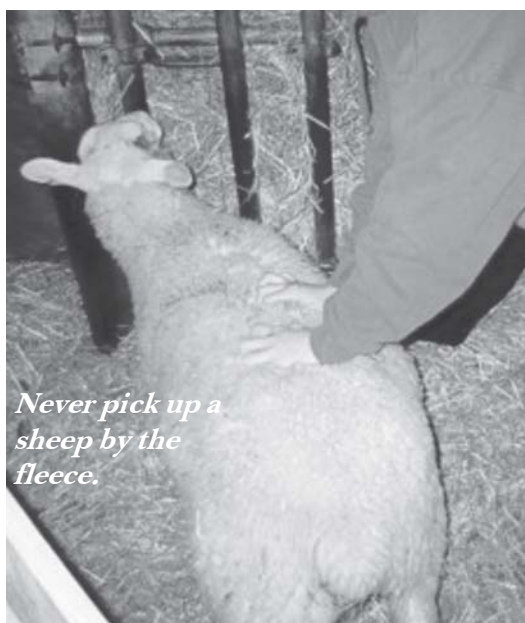
Another source of stress for livestock is human handlers who are in a hurry to move or load livestock. Take your time and everything will go much more smoothly. The old adage, "If you have fifteen minutes, it'll take an hour, and if you have an hour, it'll take fifteen minutes," applies perfectly in livestock handling situations.

Taming and training animals to become familiar with handling, equipment and vehicles is time well spent. It can radically improve future handling experiences for all involved. Also, people can connect with the animals and learn more about them. For example, by observing individuals in a herd or flock, one can identify the lead animals. This knowledge is useful when you want to move the entire group. Calling a lead cow by name when you want to move the herd to a new pasture can turn a difficult task into a

simple one, because the other cows will follow their leader.

Effective handling techniques

- To move animals, simply carrying a bucket of feed in front of them works with all types of livestock, provided they are not in a state of fear at the time. Feelings of fear will re-direct an animal's attention from their stomach to thoughts of escape!
- If you have to move larger numbers of animals through an unfamiliar handling system, you can use trained sheep or goats to lead the newcomers.
- Awareness of "flight zone" and "point of balance" enables a stockperson to apply pressure on the herd or flock at the right time and with the right amount of pressure, without causing panic.
- Keep animals calm by being calm. When transporting ani-



Never pick up a sheep by the fleece.

The flight zone is the invisible circle of space surrounding the animal that she/he needs to feel safe. The tamer the animal, the smaller the flight zone. When a handler breaches the outer edge of this zone, the animal will move away.

The "point of balance" is at the shoulder of the animal. When the handler is facing the animal, the animal will tend to move backwards. When the handler is behind the shoulder, the animal will tend to move forward, away from the handler.



Curved chutes work better than straight ones (in which animals may turn back in the direction they came from). Note the two back-stops which hinge up as the animal passes under them.

imals, whether to pasture or shipping them, keeping them in familiar groups significantly reduces stress. It is a good idea to transport at least two familiar animals at the same time to reduce the stress of isolation that herd animals feel when alone in an unfamiliar place. This is important when shipping a cull animal or separating a dairy cow to put her in a calving pen. An excellent barn design has the calving pens close to the group area so the cows can see, hear and touch each other. With this set-up, the cow that has to be moved experiences minimal separation stress, in turn reducing the stress of calving.

- In general, try not to isolate animals to avoid causing separation anxiety.
- “Driving aides” can make a big difference in moving animals onto a vehicle or into a squeeze chute. Rather than hitting animals or

using electric prods, paddle sticks or sticks with small flags attached can be used to get their attention. The tendency to move away from an unknown object is a behaviour that can be used to direct animals.

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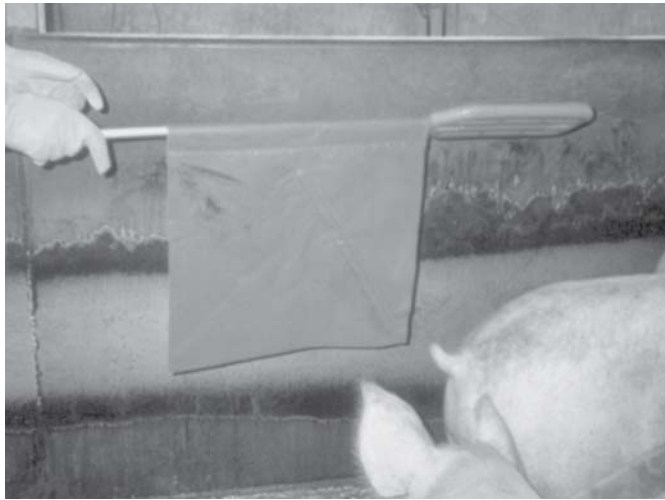
- Having some sense of control is key to an animal’s ability to cope with stress. Well designed systems take this into account to maximize the chances that the animals will cooperate with the handling. An example is loading pigs onto a vehicle by using a see-through partition on the ramp going up into the vehicle. One advantage is that the pigs can make a choice to go

right or left, and therefore exert some control over the situation. The other advantage is each pig can see pigs on the other side of the partition and “follow the leader” onto the truck.

- When handling sheep, the number one rule is never pick up a sheep by the fleece. Unfortunately, this sometimes occurs when lambs are being loaded for transport, and people are in a hurry. Not only does rough handling hurt and frighten the animals, it also causes serious bruising on the carcass, which downgrades the quality and value of the meat.
- In general, pigs are the most easily stressed farm animal. It is critical to handle them intelligently, being prepared with the right equipment, and staying calm and patient. When animals become stressed, they cannot think as clearly and are more difficult to handle. Research has also shown that quiet handling of pigs signifi-



Distractions such as shadows and activity outside this chute cause balking and slow down animal movement.



Sticks with small flags attached and “butterfly boards” are effective driving aides for guiding pigs.

cantly reduces open-mouth breathing, a sign of stress.

- A “butterfly board” is an effective tool for moving pigs. It can be as simple as a piece of plywood hinged in the middle that is moved slowly behind a small group of pigs in variable-width alleyways. From the animal’s point of view, when distractions are removed in all directions but the desired one, “there is only one way out...and it’s forward.”

Low-stress systems

The most important design features of a livestock handling system include a well lit space, solid walls along the passageway, non-slip flooring, and a minimum of distractions that can slow the animals or interfere with getting the job done.

Farmers or ranchers with larger herds or flocks invariably have handling systems installed for reasons of efficiency and safety. These systems might be purchased from a manufacturer rather than built on site. Often, they have been designed according to principles developed by Dr. Temple Grandin and others who have spent their careers engineering animal-

friendly handling systems.

Animal-friendly handling systems work on the basis of understanding that animals:

- prefer to follow a leader,
- circle around a perceived threat,
- are easily distracted by strange objects, nearby activities, loud noises and bright lights, and
- will try to escape when confined.

Animals tend to go more willingly from a dark to a brighter area.

Handling systems tend to use curved chutes to give animals the sense they are circling the threat and turning back in the direction they came from, towards a more familiar place.

Take into account how farm species differ in how they herd or flock together. For example, a partially empty single-file chute promotes following behaviour in cattle, whereas sheep can be handled in one continuous group because they are the most closely bonded farm species. The ideal group size of cattle or pigs being

handled at one time in a single-file chute is four to ten animals.

Intelligent facility design makes all the difference in keeping animals as calm as possible and moving them where the stockperson wants them to go. Shadow-free, even lighting (which does not point directly into animals’ faces) will increase their ability to see where they are expected to go. Since livestock have great peripheral vision but very limited depth of field, it is essential they can see where they are going.

Animals tend to go more willingly from a dark to a brighter area. This can be a problem when loading livestock onto vehicles from a bright barn or assembly yard. An effective tool is a light installed inside the trailer (but again, not pointed directly in the animals’ faces). If they can see where they are going, and the leaders feel secure enough to get on board, the others are likely to follow.

If the handling system is located outdoors, best results are achieved on cloudy days rather than sunny ones, since there are fewer shadows, which cause distractions. Removing other distractions, such as loose chains,

glistening puddles, hanging clothing and views of people or equipment moving up ahead, will reduce the animals' tendency to balk, therefore improving movement.

An important design feature is non-slip flooring and a minimum of manure covering those floors, so that livestock don't stumble. Obviously, falling can injure animals. Also, animals are instinctively afraid of falling and losing their footing. A slippery floor causes fear and stress, which in turn increases attempts at escape, which increases the time it will take to handle the livestock. Single-file chutes should have non-slip floors and no sharp protrusions. They should have solid walls to remove distractions caused by outside activities, and to prevent the possibility of animals trying to jump out.

Back-stops along single-file chutes help prevent animals from backing up, and also slow down the animals entering the chute behind them. The idea is to give the animals only one way out, and that is through the system into the squeeze or vehicle. Patient, gentle handling techniques are used to encourage the animals along the way.

Pre-slaughter period

Arguably, the most critical time in an animal's life is when she or he is transported to slaughter. The pre-slaughter period begins when the animal is handled to be loaded, and ends when the animal is killed at an abattoir. This period can last for several days during which the animal is subjected to numerous causes of stress, such as separation anxiety, hunger and thirst, and unfamil-

iar surroundings, animals and people. Humane handling is never more important than during this period, and everything that can be done should be done to minimize the fear and distress that livestock experience at this time.

Animals that are in poor body condition, lame or sick risk suffering greatly from the ordeal of a long journey and the numerous other stresses associated with the pre-slaughter period. Those at greatest risk of suffering are the cull cows, sows and boars, 'spent' hens and old horses. The culled animals quickly use up their reserves of strength as compared to young healthy animals.

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The vulnerability of cull animals is slowly being recognized by producer organizations. For example, Dairy Farmers of Canada and the new Dairy Code of Practice urge producers not to ship cows that have a Body Condition Score of less than 2. The farmer has an ethical obligation to not ship any animal in poor body condition. Furthermore, the resulting carcasses of animals in poor body condition may be condemned by inspection staff for reasons of food safety, adding a financial incentive to refrain from shipping them. Some abattoirs have started charging sellers a fee for handling and disposing of condemned carcasses.

In summary, handling livestock safely and successfully requires:

- careful planning;
- patient handlers who are aware of the natural behaviours of livestock and enjoy working with them; and
- a well designed handling facility equipped with appropriate tools and equipment.

Low-stress, smooth handling will result when these key components are in place, making handling situations easier on livestock and more rewarding for humans.

Resources

Alberta Farm Animal Care:
www.afac.ab.ca

Cattle handling in crowd pens (Grandin): www.youtube.com/watch?v=Cpggjn_G6NU

Cattle behaviour and handling (Grandin): www.youtube.com/watch?v=r9ZM9DaMv-w

Animal Welfare Task Force fact sheets (pain management, preventing heat stress, feather-pecking, lice control in organic production): www.oacc.ca/AnimalWelfare/aw_awtf_factsheets.asp

Improving Animal Welfare: A Practical Approach. Temple Grandin (Ed). Blackwell Publishing, Oxford. 2010.

Temple Grandin's website:
www.grandin.com

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Photo credits: Temple Grandin