



Cattle Producer's Handbook

Management Section

791

Low-Stress Livestock Handling on Pasture and Range

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Stress is one of the great hidden costs in the livestock industry. Handling stress affects ranching operations through marketing, weight gain, reproduction, health, and relationships with family and labor. The good news is that making changes in our attitudes toward handling livestock can lead to benefits economically and relationally without any associated capital or direct costs. Cattle producers just have to be willing to invest their time to learn.

The principles and techniques of low-stress livestock handling were developed by Bud Williams, the world's leading expert on livestock handling. These techniques have been used in all kinds of terrain and climates and on all kinds of livestock, elk, reindeer, and fallow deer.

Using these methods, cattle producers learn to work animals in such a way that cattle do not consider handlers a threat to them. The last thing handlers want is for animals to think their handler is a predator. The goal is not only to work livestock with very little stress but also to take existing stress off of them.

This paper is the author's interpretation of these principles and techniques and is based on personal experiences with Bud Williams that occurred during a 2-month study leave. These methods work and result in stress reduction in cattle including lowered death loss, reduced sickness, and improved weight gains.

The following information provides a basic introduction to low-stress livestock handling and is not meant as an all encompassing guide. Resources listed at the end can provide additional information through schools, videos, and written materials.

In order to implement low-stress livestock handling techniques, cattle producers must make two main changes in attitude:

Old Attitude: I'm going to MAKE that animal do what I want.

New Attitude: I'm going to LET that animal do what I want.

Old Attitude: That miserable (ornery, wild, stupid, hateful . . .) cow (calf, bull, sheep, pig, horse . . .) broke back (went the wrong way, missed the gate, charged me, got sick . . .).

New Attitude: What did I do to cause the animal to react that way?

Once the attitudes of cattle producers have changed, three steps will assist handlers to see changes in the way they interact with livestock (Cote 1999). These are:

1. **Stop forcing stock to do what cattle handlers want.** Replace the use of force with training controlled by low stress principles. Add some practice and patience to the mix, and livestock will begin to understand producers are not going to force them.
2. **Stop doing the things that bother livestock.** This allows them to get comfortable and learn quickly.
3. **Correctly use handling techniques.** Livestock will respond naturally to them and will do the things cattle handlers want.

Low-stress livestock handling means the animal does not see the handler as a predator forcing them to move. This is replaced by using actions (pressure) that allow cattle handlers to get a desired response without force. Once handlers get that desired response, the coaxing action is stopped (release). When livestock see that human application of pressure is always accompanied by release of pressure when the animal responds, the cattle relax and comply with what handlers want.

In order to be effective in not forcing animals, cattle handlers must understand some basics about animal behavior. To understand basics, handlers must first observe livestock tendencies.

Watch What the Animals Are Doing

You must constantly watch animals while handling them in order to interpret their responses and make any needed handling adjustments. Animals will tell you where you need to be when working them. The first step is to keep your eyes on the stock at all times, which is easier said than done because it requires concentration. Once cattle handlers acquire the discipline to keep their eyes on the stock, then they can apply the appropriate pressure/release that will keep livestock calm and lead to achievement of the desired result.

Cattle producers must react to what the animal is doing, not outguess or anticipate what they think the animal will do. This sounds counter intuitive, but handlers will have to be wrong before they can be right. By responding to what the animal is doing and testing to see the response of applying pressure, handlers can determine the proper position the animal wants the handler to be in to achieve the desired response.

The key point is that if the handler's pressure is not getting the desired response, then a change in pressure technique is required. In other words, the animal tells the handler whether the pressure is right or wrong. The handler does not make that determination.

Flight Zone

Every animal has a flight zone (Fig. 1). Theoretically, you step into the flight zone to get movement and step back out to stop movement. Movement occurs because the animal senses you have gotten too close and moves away. For more information on flight zone, see 792.

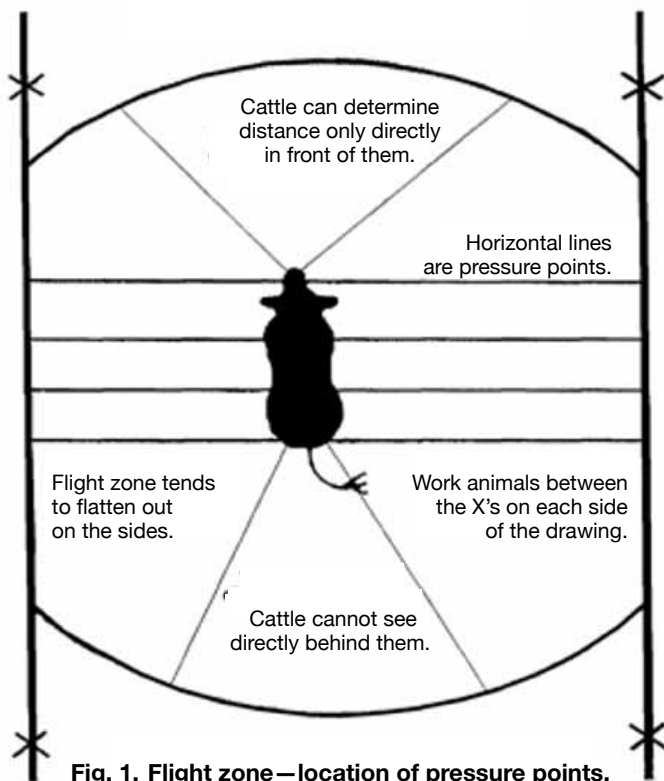


Fig. 1. Flight zone—location of pressure points.

The same occurs with people. Next time you are in a crowded area, notice the movement that takes place as people are in conversation. If someone is perceived as getting too close, the other person will take a step or two back to create more distance. This is a demonstration of human flight zone.

Release of pressure from invasion of the flight zone occurs either by the animal moving off or the handler stepping back. If the pressure stays constant with no relief, the animals will become more agitated, and stress starts to occur.

The flight zone is not a perfect circle with rigid boundaries. It is flatter on the side, which means you can get closer approaching from the side. It will expand and contract as the animal moves. You must constantly watch animals in order to react to changing conditions.

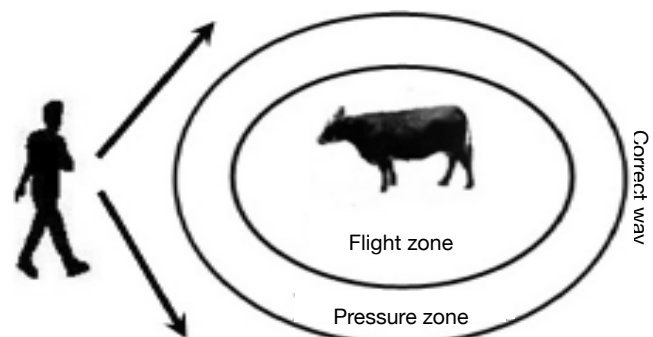
If you want to create movement, you have to step into the flight zone and pressure the animal's head, shoulders, side, or hips. The angle and direction of the approach will determine how the animal will respond. For example, the shoulder is the balance point on an animal. Pressuring at the shoulder or behind will generally get animals to move forward. Pressuring ahead of the shoulder will generally cause the animal to turn.

Pressure Zone

A pressure zone is where the handler starts to impact the animal (Fig. 2). Instead of a fine line between pressure and no pressure, there is actually a much wider boundary where handlers start to impact animals, called the pressure zone (Ingram 1996).

At the outside edges of the pressure zone, cattle producers can observe reactions that are not too negative. Handlers know they have reached the edge of the pressure zone when they see reactions occurring. Some examples include: the animal flicking an ear, lifting its head, getting up if it were lying down, or anything else that is different from what the animal was doing. Handlers should watch the animal as they approach so the handler knows when he or she is entering the pressure zone.

Awareness of the pressure zone is important when starting movement in livestock. Handlers cannot go directly head on at animals once they enter the pressure



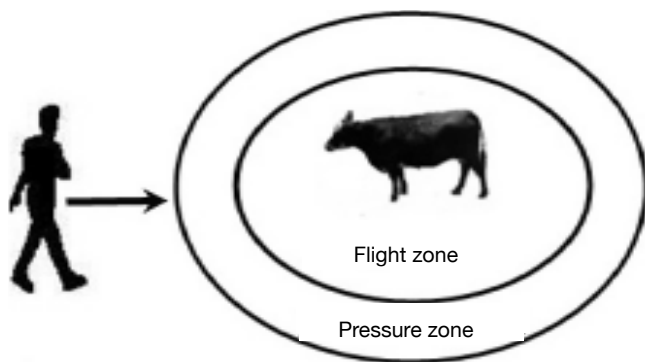


Fig. 3. Wrong way.

zone, or the animals will become upset (Fig. 3). When animals become agitated by a handler's invasion of the pressure zone, handlers should change their angle of approach so that as animals are approached the handler can kept going and go right on by (Fig. 2).

Sight

Cattle can see almost all the way around them except directly behind (Fig. 1). They have trouble judging depth and distance except for those objects directly in front of them with their heads lowered.

Because of their sight, a handler should never stay directly behind an animal for a lengthy period of time. Otherwise, the animal will turn its head to look at you and start to turn. If a handler sees this happening, then you need to move to the side where the animal can see you, which will straighten out its head and keep the animal moving forward.

Animal Basics

Animals want to do certain things as long as they are not stressed. Handlers should keep the following in mind and use them to their advantage to get desired results:

- Livestock want to move in the direction they are headed.
- They want to follow other animals.
- They want to see what is pressuring them.
- Livestock like to have two or more directions to go when pressured.
- They have little patience.

Conversely, handlers should avoid constantly pressuring animals, pressuring animals so they bump into others, making loud noises, or trying to push for movement that is too fast.

Looking at the Three Parts of the Animal

When handling livestock, cattle producers are working with three parts of each animal—emotional, mental, and physical (Cote 1999). Whenever handling new stock, handlers need to think about what part needs attention first and what steps to start with. Handlers should ad-

dress the weak link first in order to produce well-trained stock in a step-by-step manner. The stock will tell you where to start training.

Starting places vary. Some animals may be too concerned about handlers even being around to react calmly and responsively even to a simple cue. This tells handlers to start training with the **emotional side** first. Handlers should start by just letting the animal know you will not be aggressive nor do things that have stressed it in the past. Let the animal get comfortable with you being in their sight.

In other cases, the animal may be comfortable with handlers being around but is not responding to move ahead with good movement when pressured. This would be a problem with the **mental side**. Handlers may need to go back to getting the animal to respond consistently to pressure/release and then build from there.

Sometimes an animal may be tired, sick, or injured and less responsive. This is a problem with the **physical side**. If handlers leave out consideration of any of these parts in handling methods, it will surface down the road (Cote 1999).

Pressure/Release

Livestock want to be comfortable and feel safe and secure. Unrelieved pressure causes stress that causes panic movement. Applying and releasing pressure is how animals learn to become responsive and why they continue to respond well (Fig. 4). Pressure/release gets stock to understand that handlers will not force them and that there is a readily available reward.

Pressure/release can be built upon step-by-step to having one pressure or cue mean more than one thing for stock to do, depending on when the release comes.

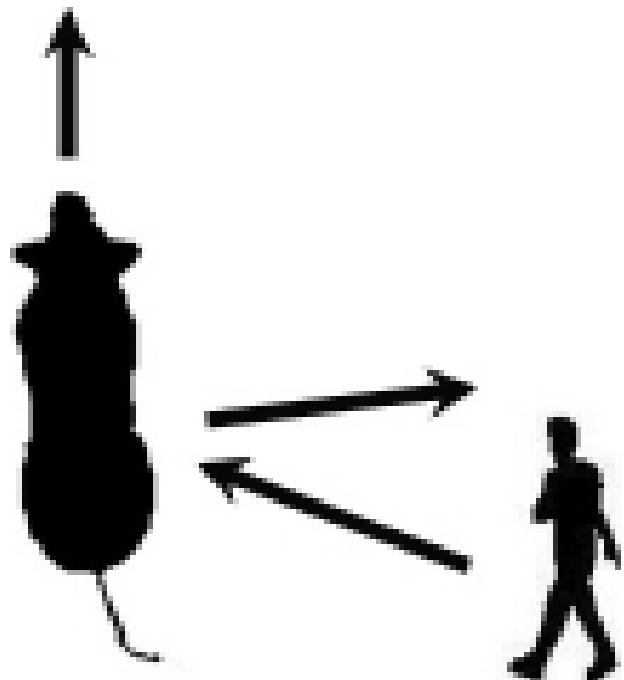


Fig. 4. Pressure/release.

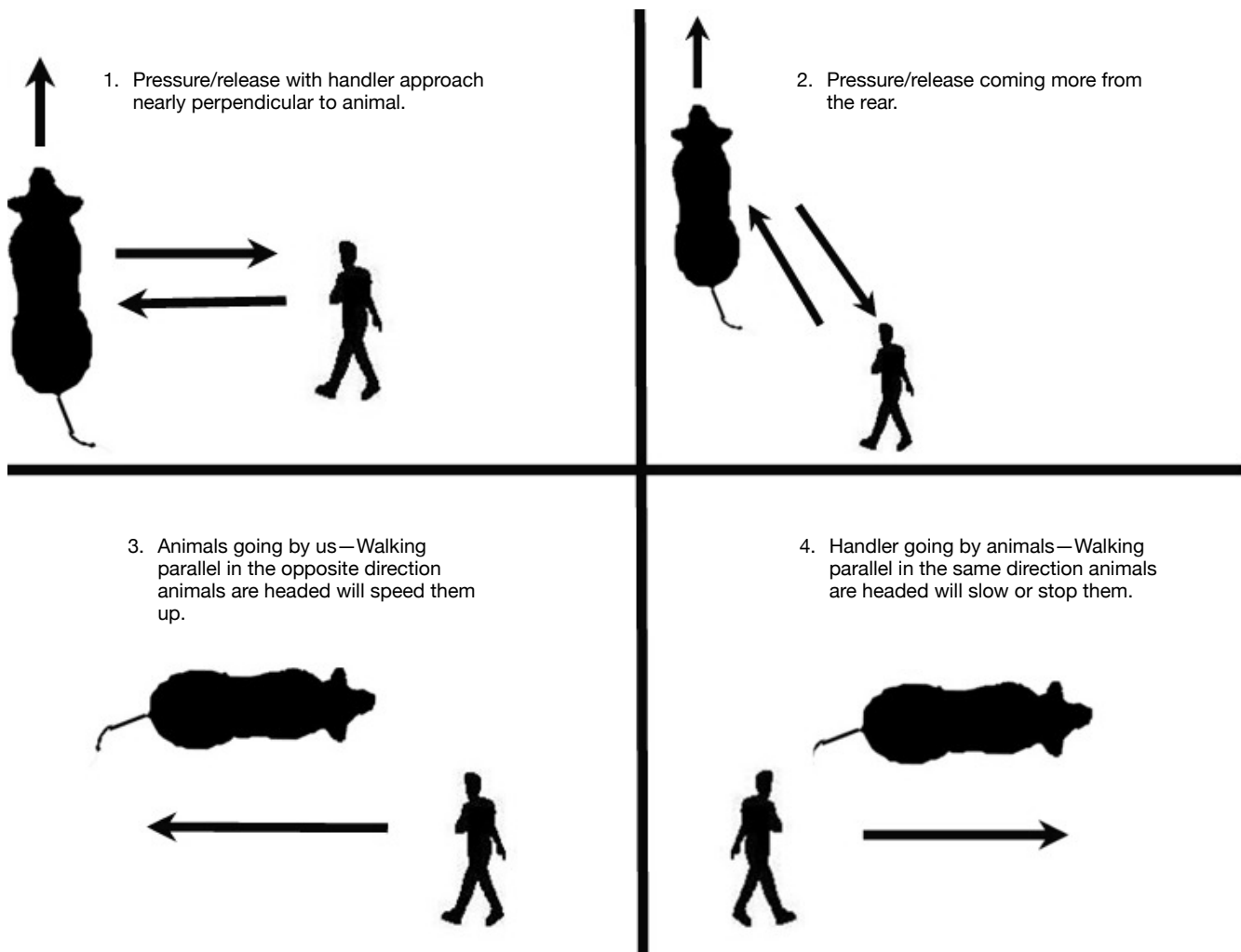


Fig. 5. Four-step approach to pressure/release.

Once an animal learns pressure means do something, continued pressure of the same sort means do something additional. As an example, getting an animal to go away straight is comprised of the following steps:

1. The animal staying calm and allowing the handler to approach close enough to pressure its side effectively.
2. The animal moving its feet when pressure is applied.
3. The animal moving its feet consistently and going straight ahead.
4. The animal doing all of the above consistently with good movement.

The handler would start at step one and go through each one, progressing as an animal responds consistently at each individual step. If problems develop, the handler could always go back to a previous step that the animal did well and then start to progress from there. The process is not complicated and does not take as much time as it might appear in reading this.

Good movement is when animals are moving off in a relaxed manner and keep going. It is easy to keep them headed in the desired direction. When a herd of animals is moving off well, it is almost perpetual motion.

The lead animal draws the back animal. As it steps up, this puts pressure on the lead animal so it keeps going. This movement will draw other animals as well. Handlers can keep driving the main herd, and the animals on the outer edges will come to that movement.

Bad movement is just the opposite. Rather than animals moving out in a relaxed manner, they are agitated or hard to get any movement at all. Handlers spend a lot of time starting the herd and then having it stop. Animals are not drawn from the outer edges, and handlers must leave the main herd to go get them. By the time handlers bring those animals back, the main herd has stopped and the cycle starts again. This is frustrating to both animals and handlers.

Fig. 5 shows a four-step approach that will assist handlers in getting livestock to respond calmly and consistently. Step 1 is the easiest for the animal. The handler calmly approaches from the side then retreats.

Once the animal is moving consistently for you, progress to Step 2. The handler continues pressure/release but from behind the shoulder of the animal. Once the animal is calm and moving off, progress to Steps 3 and

4. If an individual animal or group develops problems, the handler may have to review these basic steps to get positive response from the animal.

The first two steps get animals comfortable with taking pressure and having handlers move off to relieve pressure. The last two steps allow handlers to control speed, direct animals through gates and into trailers, and to sort animals.

Ending the Lesson

When the animal being worked gives the handler a consistent, positive response to the applied pressure, remember to end the lesson. This means after the pressure is released, allow the animal to associate the right thing it did with the reward it receives. Ending the lesson could mean letting the animal take a few steps forward before being pressured again, or it could mean leaving it for the rest of the day.

Don't Start with Your Goal

Although it is important to begin any training session with a plan and to have the end in mind, never begin training stock by expecting an immediate correct response. Not starting with a goal means taking a step-by-step approach to anything the handler is training the animal to accomplish. If work continues toward getting animals to learn each progressive step, the handler has created a solid training foundation.

A goal is to train livestock in an atmosphere where stress is minimized on the handler and the stock. This method will also save time. Start any training lesson with the end in mind, but with the idea of getting the stock to work progressively to a goal step-by-step. Successful handlers let the animals tell them where to begin and with what approach. Handlers should always keep their eyes on the animal so that the handler's position in relation to the animal is proper in order to work the animal.

It takes patience to work livestock effectively. If a handler is feeling angry or upset, the handler should take a break until calm. Animals sense a handler's distress and will be harder to manage. Many times, just holding off on pressuring for an extra second or taking a step back can mean the difference between success and failure. If a handler's mind is on other things, the handler will miss the subtle cues from the animal and will encounter more difficulty in working the animal.

Other Handling Basics

Aim Toward the Front

When pressure is applied to an animal, aim toward the front of the animal or even lead the head a little (Fig. 6). If a handler pressures at the wrong spot, take the time to step back and change the angle of approach while keeping the animal moving straight. If pressure is more toward the hip, the handler must be 100 percent correct in position, or by being in this position, the handler will

cause the animal to turn before the handler can change the angle of approach.

Pressure the Front of a Group

By moving the group of front animals first, room is created for the back animals to move as they are pressured. The front animals should be pressured from the side. This allows the front animals to move away from the handler's pressure, which the handler wants, and for animals that follow to be going in the desired direction.

Back and Forth

Back and forth is the best way for handlers to pressure animals (Fig. 7). A handler moving back and forth slows down animal movement, buys the handler a little extra time to determine where to pressure or release, and keeps animals calm and responsive. Sometimes the back and forth movement is a handler walking several steps in one direction and then going back in the other direction. Other times, the back and forth may be the



Fig. 6. Apply pressure toward the front.

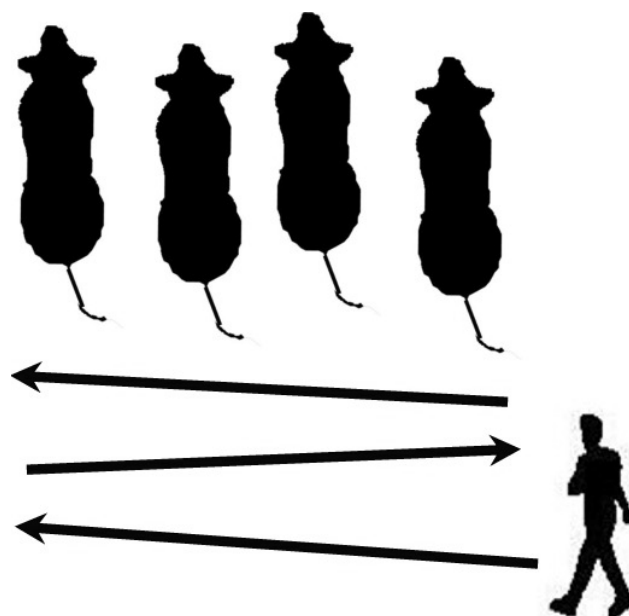


Fig. 7. Back and forth pressure and release motion.

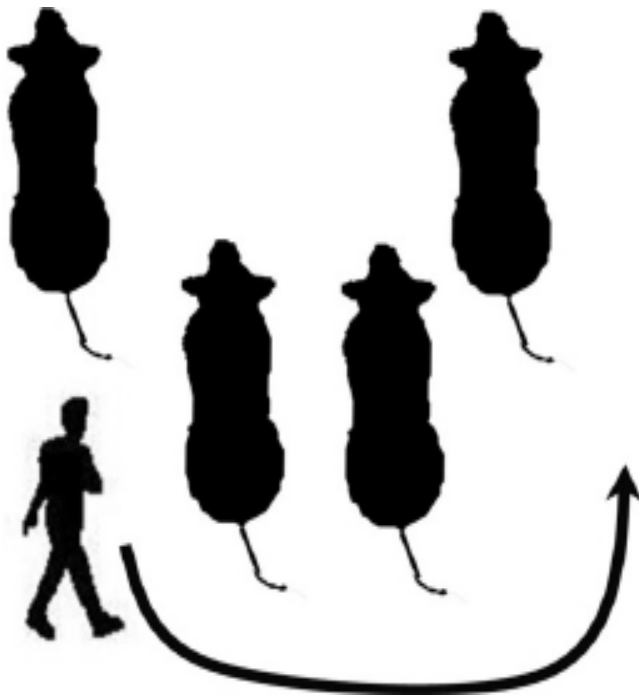


Fig. 8. Wrong way—curving out.

handler just taking one step one way and the next step the other way.

Back and forth is the technique handlers use to move closer. Handlers accomplish this by going at an angle when going back across, which will get handlers closer to the animal. Handlers should resist the tendency to get closer by not taking a direct step forward and jabbing at the animals because this creates stress.

Handlers must be close enough to the animal to get a response, otherwise nothing is accomplished. This is tougher to implement than one might think. Handlers tend to stay too far away because of being afraid that the animals will break back.

Tips on Going Back and Forth

Handlers should walk straight lines because this allows handlers to start and maintain good movement. Handlers can concentrate on keeping that movement headed in the desired direction. If a handler does not walk in straight lines, dips and bulges in the herd will occur, which causes animals to start and stop. This creates stress in animals and makes moving them more difficult to accomplish.

For example, if the herd is curving out (Fig. 8), the handler has tended to apply pressure on the outside animals to drive them but not enough pressure on the middle to keep the herd going. If this condition continues, the handler eventually gets parallel with the herd, and the middle goes in the same direction. This causes the middle to slow or stop, which creates a bulge. The handler then must spend time getting the middle going, but the outside animals stop. Once the middle animals

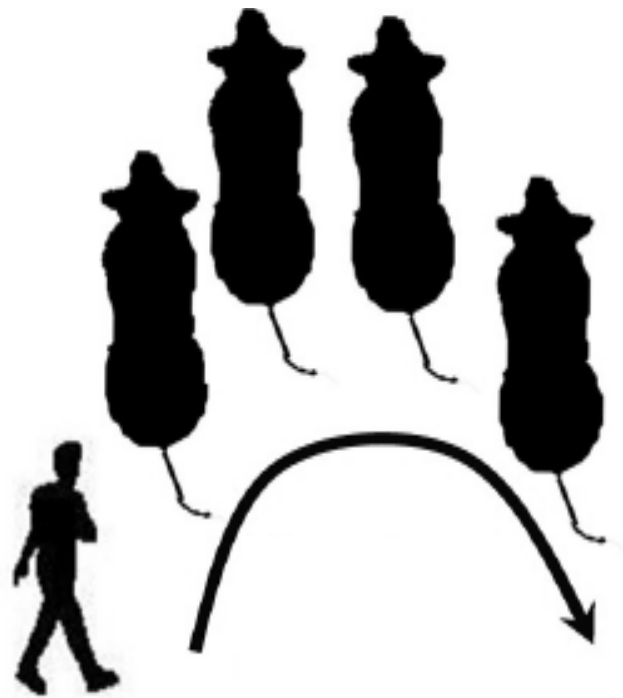


Fig. 9. Wrong way—curving in.

catch up to the outside animals, handlers have to get the whole herd going again.

The opposite happens when a herd curves in (Fig. 9). Handlers drive the middle but the outside animals receive too little pressure to keep them going. If this condition continues, handlers eventually get parallel with the outside animals going in the same direction. This causes the outside animals to slow or stop, which creates a dip. The handler then must spend time getting the outside animals going, but the middle animals stop. Once the outside animals catch up to the middle, handlers have to get the whole herd going again.

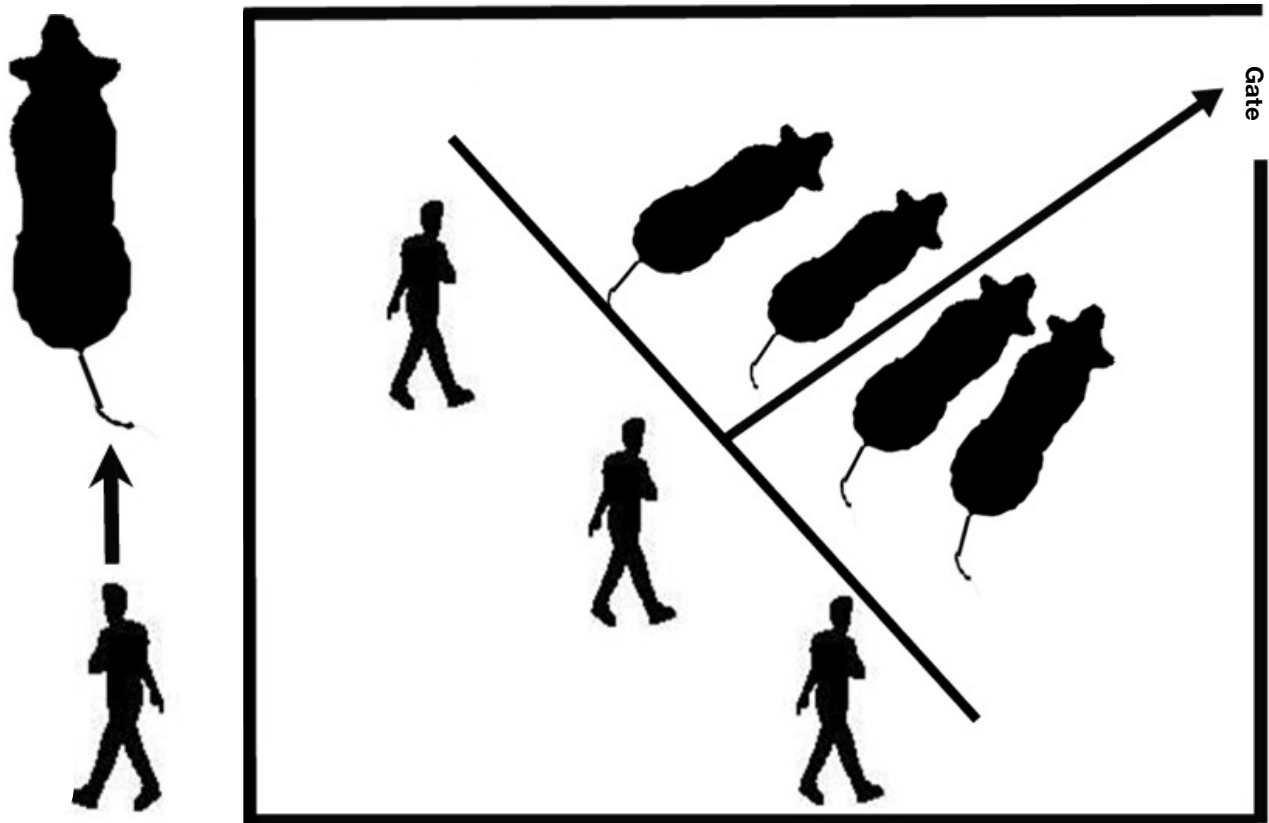
Maintaining the Desired Direction

As handlers walk across the back of the herd to the right, pressure is applied on the herd to turn to the left. As soon as handlers recognize this deviation in direction, they must turn back to the left, which tends to put pressure on the herd to turn to the right. In other words, back and forth motion is used just like when operating the steering wheel on a car. Drivers (handlers) make continual slight adjustments to keep the vehicle (herd) headed in the desired direction.

Do Not Apply Pressure from Behind Animals

Two things happen when handlers apply pressure directly from behind (Fig. 10):

1. Handlers are in the animal's blind spot. The animal will tend to turn its head to see what is behind it, and when it does that, the animal will tend to turn out.



Figs. 10 and 11. (left) Wrong way—directly behind, and (right) the correct way—handler movement in a “T” formation.

2. If the animal steps forward, the handler likely will step forward too. This keeps constant pressure on the animal that it does not like.

Handlers can walk along behind livestock all day and not cause any problems as long as they are outside of the flight zone and not pressuring them. When a handler is pressuring an animal, it will sense movement through its blind spot while the handler is going back and forth. Handlers should avoid lingering in the blind spot.

There is always a correct position to work animals. This position moves as the animal moves. The angle a handler moves in relation to the animal determines if the animal will maintain the proper position. The speed the handler moves is important (recommend slower and sooner rather than quicker and later), but speed is not as important as the angle.

Principle: Handlers as a group should work in a “T” formation to the desired direction of movement. The top of the T should be perpendicular to the animals that are being driven (Fig. 11). As animals move, the angle and direction handlers need to pressure changes.

All handlers used to move cattle need to stay in a straight line along the top part of the T. If they are working on the periphery, there will be times when no cattle are in front of all the handlers. Handlers must avoid the tendency is to step forward. If handlers step forward and become out of alignment, the straight line of the animal movement breaks down.

References

- Ingram, Roger. 1996. *Belief and the will to do it*. Univ. of California Cooperative Extension, Auburn, CA.
- Cote, Steve. 1999. *Livestock handling for planned grazing systems manual*. Natural Resources Conservation Service, Arco, ID.

More Information

Here are other sources for information that can be of help:

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