

## The Science of Stockmanship Behavioral Science Complements Traditional Stockmanship

By Dixie Crowe

The small movements, a raise of the head, a flick of the tail, the white of the eye, anticipating what's coming instead of deconstructing it after a wreck these are some of the marks of a good stockman.

[Dr. Temple Grandin](#) and [Curt Pate](#), advocates for the humane treatment and handling of livestock, shared their knowledge about stockmanship and stewardship with participants at the [Beef Quality Assurance](#) workshop at Colorado State University on September 5 and 6, 2014.

"You know consumers are getting more interested in where their food comes from," said Grandin. "I think we have to look at what we do. If you say to yourself 'that would look bad on YouTube,' don't do it. It's that simple."

They discussed how cattle producers could apply the science behind prey animal behavior with decades of proven stockmanship techniques to create low-stress handling situations. These skills fall in line with the BQA standards for care and marketplace transparency for consumers.

"When we talk about beef quality assurance it's completely a producer driven and voluntary program," said Katy Lippolis, Colorado BQA coordinator. "Our producers want to be kept up to date with these management practices."

Just like groundwork that is used to teach horses to trust their rider and gain confidence in new situations, cattle can be worked on foot or from horseback and introduced to new experiences preparing them to experience all situations calmly.

Grandin stressed the importance of creating positive first experiences for the animals. When they are allowed to approach new objects or situations on their own, their natural curiosity takes over. Cattle introduced to alleys and squeeze chutes without any procedures performed or the stocks closed on them are more likely to enter them later without fear. Pate echoed these sentiments.

"I've got to change the way I do things to fit the animal," he said. "It's not going to change to fit me, I've got to change to fit it."

Pate said cattlemen have to go beyond the predator-prey model, that is widely referenced in both horse and cattle training. They can understand how cattle respond to predators and then use it to their advantage.

Grandin and Pate demonstrated how the technique of pressure and release are used on the ranch or farm. These practice sessions prepare the animals to handle transport and the feedlot. This not only improves their quality of life but also produces cattle raised in a way that meet consumer's expectations.

Pate said that unconsciously applying the human behavior of getting in line behind the person in front of us does not move cattle forward. At best, a cow turns to look at what's behind it and then circles to one side. At worst, it comes to a dead stop to completely turn and face what's following it.

"We should be able to think and learn and understand how to create a pressure that is positive, not negative," Pate said. "We're different from a mountain lion or a wolf. So when we only think of ourselves in that way, I think we're limiting ourselves."

When working horses in a round pen, trainers stand in the middle and use the driveline at the withers to move them forward with pressure. Changing the angle to that line can speed them up, slow them down or bring them to a halt. Cattle have a similar point at the shoulder.

Pate pointed out that in the round pen, the trainer naturally works the horse from the side. On the open range or in corrals and holding pens that pressure still needs to come from the side.

"Cattle don't have rearview mirrors," Pate said.

When he moved in a zig-zag linear pattern behind the cattle, he took advantage of their field of vision which extends in a large peripheral arc on each side. They were able to see him from either side and moved forward in the desired direction while he avoided standing in the blind spot directly behind them.

He also stayed outside the cattle's flight zone. Outside this invisible bubble, he created enough pressure to move them at the walk and even trot without triggering a fear response. Grandin's research proved that animals pressured into fight or flight mode will take at least 30 minutes to calm down. Moving cattle

quickly actually means moving them slowly.

She made this point by adding up the time it takes to empty a backed-up chute, get the cattle calm and moving again. A frightened animal becomes unpredictable and dangerous. Lost work time and costs for injured employees are part of the cost of pushing cattle too hard. Dr. Grandin's guidelines are condensed into straightforward instructions and illustrations in her book "Humane Cattle Handling."

She demonstrated how to take advantage of the cattle's natural following behavior in her cattle handling system of soft curves and solid walls leading to a squeeze chute. She walked to the front of the curved alley. Then she repositioned herself to walk back past the cattle close to the wall within their flight zone. This caused them to move forward away from her and out through the open doors of the squeeze chute without producing a fear response.

"A good stockman is always watching," Pate said. "If I'm putting pressure on this animal and it's starting to switch, I know that the animal can't take that pressure."

He said understanding how much pressure to apply to keep them in a learning mode where each lesson builds their confidence takes practice but ultimately leads to positive experiences and reduced fear for the animals.

He explained that horses and cattle learn best when the pressure is enough to keep them interested and engaged. Too much pressure causes them to panic. With cattle, this stress causes them to lose weight or in cattleman's terms shrink. He said an animal cannot learn when it is in survival mode.

In Grandin's presentation, she had photographs of alleys and chutes that made cattle balk and asked the group to look at these areas with the eyes of the cow. Entering a dark place, shafts of sunlight across a shadowy floor, chains hanging down from gates, even parked cars visible through fencing created enough pressure to cause cattle to balk and stop moving forward. Handlers leaning over the alleys or in the flight zone not only stopped forward movement, but also caused cattle to rear up or kick.

Pate said using horses to move cattle benefited both animals. The human on horseback can move into position more quickly than on foot. Once the horse understands the process it can anticipate the cattle's movement, which is a skill seen in cutting horses who are judged on their "cow sense."

Grandin pointed out that cattle are sensory-based thinkers who see memories in pictures. *(Listen to the audio recording above)*

“Think about it, the man on the horse looks different than the man on foot,” she said.

Cattle need to be worked from the ground on foot and on horseback. Pate said there were lessons for the horse as well.

“As far as the horsemanship goes there are some real advantages,” Pate said. “First it is a real job, with real purpose, that creates real results. With that many reals in there it has to create a ‘real’ good horse.”

Many riders find that horses trained in other disciplines that have the opportunity to move cattle around a pen understand leg and rein cues better. It also improved the rider’s timing in giving those cues.

“When we are practicing effective stockmanship, we need to make precise moves, in a calm manner and that type work with the horse makes a solid gentle mount that is safe and lasts a long time,” Pate said. “Cattlemen have had to change to fit the times for the last 200 years, and I don’t think we are done changing yet.”

Grandin and Pate are using the intersection of behavioral science and stockmanship skills to improve cattle’s well being, respond to consumer’s preference for humane handling and creating important training lessons for horses.