PHOTO COURTESY OF RON GILL

Ron Gill, Ph.D., emphasizes the importance of utilizing the correct amount of pressure at the correct time to guide cattle effectively.

Low-Stress Cattle Handling Pays

Seasoned stockmen highlight cattle handling concepts and tools to maximize cattle operations.

by ***Kayla Jennings***

Once the dust has settled and the workday has come to an end, thoughts of how to increase efficiency begin spinning through many producers' heads. The evening promotes time to weigh options, to make business decisions and to think about how to maximize the operation while still being good stewards of the livestock and land.

Today's progressive cattlemen are employing new technologies all the time to achieve that goal. Ideas of artificial insemination (AI), embryo transfer (ET), flushing donor cows and other technologies surface as the perfect avenue for breeders looking to get ahead. However, there is a challenge — handling the cattle in a safe and effective way to capitalize on those technologies.

Reinaldo Cooke, Ph.D., and his team of researchers at Oregon State University conducted a study analyzing the effects of temperament and animal handling on fertility. In the 2012 study, 433 multiparous, lactating black baldie cows were sampled for blood and evaluated for temperament. Once the cows received a score by averaging the data collected, they were separated into an adequate and aggressive temperament group.

The study concluded cows with an adequate temperament had a 6% higher pregnancy rate, as well as a 7% higher calving rate. Additionally, those cows yielded calves with a 36 lb. advantage in weaning weight. When the dust settles, those numbers mean more profit for the producer. All that to say, increased emphasis on proper handling techniques pays off in more ways than one.

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Stockmanship is key

Everyone has his or her own theory on the best way to achieve low-stress handling via advanced systems and techniques. However, seasoned stockmen Ron Gill, Ph.D., Extension specialist for Texas AgriLife Extension and associate department head for Extension at Texas A&M University, and Curt Pate, veteran stockmanship clinician, argue it all starts with the handler using just a few simple principles early in cattle development.

In addition to his role with Texas A&M, Gill and his wife have a cattle operation near Decatur, Texas, and for the past decade Gill has presented stockmanship and stewardship programs at clinics across the country. In an effort to keep things as simple as possible, he uses five principles of cattle behavior that, if they are fully understood, will allow individuals to improve their stockmanship skills. These principles are cattle want to see you, they want to go around you, they want to be with and go toward other cattle, they want to remove pressure and they can only have one main thought at a time.

Similarly, Curt Pate and his wife have a small operation in Ryegate, Mont., and for more than a decade, he has been conducting

demonstrations to promote proper horse and cattle handling around the nation. He teaches three main concepts: driving, drawing and maintaining pressure. While the principles are worded differently, the simplistic ideas are a common denominator between both.

Effective stockmanship involves the ability to initiate movement in cattle and to manage its direction or flow. When it comes to moving cattle, Gill says to think about it as guiding them using pressure to indicate where they should go. The types of pressure emphasized by Pate are the exact same as those Gill uses when managing the five behavior tendencies mentioned earlier. An important factor is maintaining a position where the cattle can see what is going on and respond to the pressure being applied. If the cattle can't see where the pressure is coming from and only feel pressure, they will oftentimes become uneasy and flighty, resulting in an unsafe situation.

"We normally get behind cattle where they can't see us very well," Gill explains, "so it creates difficulty in getting them to move and communicating what we are asking them to do."

Driving cattle this way is most common for handlers, and Pate says it is most commonly done with too much pressure. He advises cattlemen to learn to read cattle to determine the right type and amount of pressure for the given situation. A rule of thumb he offers is the flatter the angle created when moving cattle translates into less pressure, while the increased angle intensifies the pressure.

"When cattle show signs of stress, then they are showing us we have the wrong pressure on," he explains. "If they are not responding, then we have too little pressure on."

PHOTO COURTESY OF CURT PATE

Training cattle to handle properly begins in the early stages of development.

By using proper positioning, guiding the cattle becomes much easier and less time consuming. Gill says to remember, "Where the nose goes, the body will follow."

Beyond driving cattle, Gill and Pate shine light on the idea of drawing cattle forward utilizing their herding instinct, as well as others. Drawing pressures can be as simple as a feed bucket ahead of them according to Pate. Additionally, other cattle can be used to persuade cattle to move forward. Like Gill says, the cattle want to be with other cattle. Strategic movement in a corral situation to draw cattle toward the handler versus away from him or her is another option.

PHOTO COURTESY OF CURT PATE

Ron Gill, Ph.D., and Curt Pate teach at stockmanship clinics across the country and internationally from time to time.

While driving and drawing are the two main concepts related to moving cattle, maintaining their attention and rewarding them for success is critical. Pate says with flighty animals, it is easy to lose their attention and to scare them. In contrast, if they are more docile, they can become bored and dull to the pressure.

"You are between the drive and the draw," he explains. "You are doing just enough to keep the animal focused on what you are doing."

Gill emphasizes not to discount the value in rewarding good behavior either. "If you put pressure on cattle, they want to remove the pressure," he notes. Setting up the workflow where the handler is pressuring the cattle then offering the reward of release will go a long way, according to Gill.

"It is not about always being gentle and easy," he explains. "It is about knowing how much pressure to put and how long to leave it. It is about pressure and release just like training any other species would be."

As any good stockman will say, cattle can only process one thing at a time. "We have to be careful to not have multiple people applying pressure because they do not know who to listen to," Gill explains. "For example, if we

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are trying to get cattle to move down a chute, we may have to give them a split second to think about it before moving forward. Slowing down enough to let them think is important."

Raising children to do the right thing and to behave begins from the time they are babies. Similarly, Gill and Pate note training cattle and promoting positive human interaction begins early in development.

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"If you take the time to train them during the weaning and development phase, then they will be trained for life," Gill explains. "As long as we handle them correctly from then on, they are not going to become untrained, so that is why we want to start early."

Pate stresses the idea of continuing to handle cattle correctly and to reward them throughout their life. With producers bringing cattle into the chute more and more today, even the most docile cattle can become chute sour. He says they begin to associate the chute with an uncomfortable situation and, therefore, resent the space. He advises producers, especially in early development, to allow the cattle to run through the chute without any treatment a few times periodically. This approach prevents them from stalling as much when it comes time to work them.

According to Gill and Pate, employing these concepts on an operation can make handling cattle more enjoyable for the cattle and the producer and can promote safety and increased profit in the long-term. Gill notes several studies indicating a relationship between low-stress handling, fertility and average daily gain. These concepts may take slightly more time on the front end, but they save time and money in the long term exponentially.

In addition to stockmanship, there has been an increased emphasis on facility design to prompt low-stress handling. While there are a number of systems that have the potential to achieve that goal, Pate encourages producers not to lose sight of the bigger picture.

"The thing I think we all have missed is it is not about a tub, a box or a Z on the ground, it is about how well you prepare the cattle to handle before you get them to any facility; and that is where we need to keep focus," he explains.

However, there is value in using a system well to increase efficiency. Gill says, "You can make any system work better if you handle cattle correctly, and any great system a mess if you don't."

Applying a system

Travis Meteer is an Extension educator with an emphasis in beef production research and herd management. He offices at the University of Illinois Research Center, and he says individuals at the center have the opportunity to handle cattle more frequently, to conduct a variety of studies, than a typical seedstock or commercial operation.

"That can be good and bad," he explains. "As you continue to handle cattle they get used to certain things. You wear down on their flight zone that can present challenges."

According to Meteer, those challenges come in a variety of forms. Some cattle become so docile they, in turn, are dull to pressure. Additionally, with larger research projects, he says the center will have handlers with a wide range of backgrounds. At the university, some graduate students assisting with studies may have grown up in production agriculture, while some are considered beginners in handling livestock.

With their system, Meteer says it is easier to maintain safety of all individuals involved, regardless of their skill level. However, he does not discount the value in reading livestock at all times to maintain safety for the stock and employees.

The university's main cattle facility is a tub-snake with a hydraulic squeeze chute. In addition, its calving facility is a self-fabricated system with a self-catching headgate. It has swinging custom panels that allow cattle in and swing out if a cow goes down. The chute has proven extremely beneficial to the handlers, and Meteer says it would be fairly cost-effective for producers to duplicate on their operations.

The main facility is modeled after Temple Grandin's research based on the concept that cattle like to go back to where they came from and to move in subtle circles. "The system we have gives us the flexibility of whether you are experienced or not, you can handle cattle through our system," he explains.

This system obviously works for the unique situation at the research center, but Meteer stresses every operation requires different systems to reach its goals. When determining which facility to employ, Meteer advises producers to consider the cost, the frequency of use, the handler's skillset and how portable the system needs to be.

"For the producers that I consult with, I advise them to investigate the Bud Box system as well as others," he notes. "Cattlemen are very handy. They like to build their own. They are very creative and constructive. If they can construct it themselves, a lot of them like to go that route."

For example, commercial producers may just be getting cattle in and sending them to the sale barn, so there is not a need for an elaborate system. However, he says commercial producers or

progressive purebred breeders who are trying to use technologies have to have the facilities that meet their expectations. Furthermore, he advises not to discount the return on investment on proper stockmanship, with or without facilities. "When you think about the safety associated with cattle handling, knowing how to operate a facility and work with cattle in a low-stress environment pays off."

At the end of the day, Meteer says, "Your system has to fit you and your operation. I don't feel like there is a one size fits all. If you look at the big picture, it has to be something that you are comfortable with that allows you to get the most out of your cattle, and allows you to be safe when deploying those technologies you are looking to improve your herd with."

PHOTO COURTESY OF RON GILL

Reading the cattle to determine their temperament is a necessary step when safely working cattle.

On your farm

Hereford breeders are among some of the most progressive in the industry. With that, it is no surprise many of them are actively incorporating some of these concepts and also building tools for handling on their farms.

Kevin Bennett owns and operates Sandrock Ranch Herefords in Benton, Wis. The business began with purebred Herefords in the 1950s and is still a purebred Hereford cow-calf operation today. Sandrock Ranch Herefords is part of the National Reference Sire Program (NRSP) and employs technology like AI often. Bennett says the ranch AI'd approximately 260 cows last year for the program, and it would not have been possible without its breeding box.

"If it wasn't for that box I would not have gotten involved in the young sire evaluation program," he notes. "With Hereford cows docility, it was a struggle to get them into the chute the minute their hoof hit the floor. Once we went to the breeding box with no floor in it, it made all the difference in the world. I would never go back to a regular chute again — no way."

The box is completely dark with plywood on all sides. The only light coming in is from the back and a small area at the bottom on the front gate. The boxes are typically built wider at the top and narrower at the bottom to conform to the body of cattle, and it has no floor. The boxes can be easily made portable with the installation of wheels and a hitch.

The breeding box creates a more positive experience for cattle, and Bennett attributes that to his ability to work through more cattle with varying temperaments in less time while maintaining safety. With the added efficiency, without taking away from proper stockmanship, Bennett says he feels this tool may prompt producers to handle their cattle more often and to use more technologies.

"Anybody that is going to AI a lot of cows needs a breeding box," he notes.

Bennett constructed his box with a couple of modifications to allow for more light at the bottom of the front gate and a small door on the top to check tags and tattoos. He also has a waiting pen just outside the box for the next cow, and Bennett says it is a nice addition for Hereford cattle specifically. It helps maintain their attention, and they are ready to move in as soon as the door opens.

"Herefords have to think about where they are going," he notes. "They are slower, that is the docility in them, and I would not trade that for the world."

Curt Pate agrees Hereford cattle are more docile and, therefore, more apt to learn how to go through these facilities quietly with the right training. He says anybody can handle Hereford cattle since they allow for more mistakes from the handler.

"Hereford cattle are the kind of cattle that do not react," Pate explains. "They think their way through pressure. They can learn to go through a facility with no problem at all because they are docile animals."

Like with any other breed of cattle, low-stress environments promote average daily gain and, therefore, profit.

"I have never seen a thin, gentle Hereford cow," Pate jokes. "They really do well if they are not scared. That is what is so nice about the docile quality of Hereford cattle. They can really put their head down and eat because they are not afraid."

The docility of the breed and the return on investment should serve as encouragement to Hereford breeders to adopt the new concepts and tools available today. With the right stockmanship strategies and facilities that fit the needs of an operation, Hereford breeders will only continue to improve the breed as a whole.

"The rest of the world, horses, dogs and the pet world, love working with their animals, and they are really proud of how they behave and handle," Pate emphasizes. "I don't understand why we can't take pride in the way our cattle handle also. It is not only a profit thing, but it is a pride thing for your ranch when we talk about how easily your cattle handle in different environments because of how important it is today." HW

Editor's Note: Producers seeking more information regarding proper stockmanship or upcoming clinics can visit *EffectiveStockmanship.com, CurtPateStockmanship.com* or *StockmanshipAndStewardship.org*.