

Farm Safety special:

Working Safely With Cattle

Common sense is the key ingredient when working with animals.

by Janet Mayer

With a death rate four times higher than all other industries, agriculture “wins” hands down for being the most dangerous occupation in the United States. But do people who work with cattle view them as one of the sources of danger that contributes to those statistics?

The National Safety Council reports that 17% of farm accidents are livestock-related, with beef cattle operations ranking high on the list and dairy coming in close behind them. Although the majority of the

accidents with livestock are not usually fatal, many adults and children each year are needlessly injured, resulting in broken bones, crushed and mashed limbs, missed days of work, and unnecessary medical expenses.

Since studies have proven that working with cattle can be hazardous, what can handlers do to increase their level of safety?

Experts say that, although there is

certainly no magic formula, common sense is the key ingredient in working with livestock. A 1997 study at Oklahoma State University showed more than half of all animal-related injuries were due to human error.

In an occupation where experience doesn't ensure against injuries, the unexpected often occurs because of haste, impatience, preoccupation or anger.

Poor judgment and lack of understanding can be contributing factors in accidents when a handler may have learned incorrect practices from watching others. Some even foolishly exhibit a feeling of superiority over larger, more powerful animals.



Don't feel immune

Do you think you are careful when working with cattle? Do you think an accident couldn't possibly happen to you? One woman who had experience working with dairy and beef cattle relates the following true story.

“I always knew accidents could happen, since I had been stepped on, kicked and even dragged while leading a steer once because I was too stupid to let go of the halter. But I never thought I would be seriously hurt; those things always happen to someone else.

“My life was changed forever on the night of Feb. 14, 1986. In the middle of a snowstorm, I was aiding a cow with a breech-presentation birth. The vet was out on another farm call, so my two brothers-in-law, Ralph and Dave, volunteered to help out. After a long wait and very little progress, the decision was made to pull the calf.

“While the men were pulling, I walked up alongside the cow to move her over, as she was turned crooked. I knew I shouldn't go between her and the pen partition, but I did anyhow. Having gotten her straightened out, I turned and was walking back along the cow when she went down like she had been shot. I was trapped under her hip with the upper part of my body held in place by the partition between the pens.

“I immediately felt my leg give out, and I experienced an overwhelming sense of panic to get out from under the weight of the 1,200-pound cow, but I couldn't move. Somehow Ralph moved the cow off of me while Dave dragged me over to a feedbox and sat me on the edge.

“To make a long story short, the rescue team had a lot of trouble getting me to the hospital because of the storm. Although nothing was broken, I was severely bruised, my right knee was totally blown out, and my right hip and left shoulder were messed up, requiring treatment after my knee was healed. My recovery was comprised of one operation, two casts, four braces, four months on crutches, five months of therapy and the loss of my job as an office manager.

“Ironically, the cow lost the calf we were trying to deliver, as the calf was only halfway out when the cow fell on me. The placenta had separated, making the calf take a breath and drown in the amniotic fluid. Luckily the cow recovered and went on to have five more calves.

“As for myself, I have never gotten back full range of motion in my knee. I limp and have developed degenerative arthritis in all of the injuries. I take anti-inflammatories just about every day of my life, resulting in stomach problems. My orthopedic surgeon and I are on a first-name basis after 15 years of visits, and he tells me I will need to have a knee and hip replacement sometime soon.

“Each and every day of my life, my injuries remind of that one moment of stupidity when working with a cow.

“Think it can't happen to you? Think again.”

—Janet Mayer

It's not always the animal's fault

“People problems” are the cause of most livestock accidents, according to an Ohio State University Extension publication titled *Working Safely With Livestock*. The publication cautions livestock handlers to use common sense to avoid accidents. Emphasizing the fact that each animal has its own unique personality, it advises livestock workers to learn to understand cattle behavior.

Planning ahead and allowing plenty of time when working with cattle also can head off dangerous situations. Another problem is attempting a task without enough help. But always keep in mind that cattle work easier and faster with a few well-trained, quiet handlers instead of those who scream and wave their arms.

Personal protective equipment is also high on the list of necessities. Depending on the activity, workers should include gloves, safety glasses, long trousers, steel-toed shoes or boots with nonskid soles, shin guards, and hard hats in their gear.

Temple Grandin, assistant professor of animal science at Colorado State University, says good facilities play a major role in preventing accidents by providing a means of controlling animals while allowing easy access in a safe environment. With more than 25 years of experience in handling large animals and as a designer of livestock-handling facilities, she tells cattle handlers

they can improve productivity and prevent injuries both to people and to animals by understanding cattle behavior.

Grandin cites four situations as the major causes of livestock handling accidents.

1. Fearful, agitated animals

Fear is a universal emotion in the animal kingdom. It motivates animals to avoid predators and to survive in the wild. But fearful, large animals are dangerous and more likely to injure themselves or their handlers than animals that are not afraid.

Herd animals, such as cattle, often become agitated and fearful when separated from the herd and will frantically attempt to rejoin herdmates, which can be dangerous. Grandin says she has observed lone bovines left behind in crowding pens or alleys that have caused serious accidents by jumping fences or running over people.

She advises handlers never to get into a confined space with a single, agitated, large animal. Either the animal should be released or more animals should be put in with it.

Cattle can become extremely fearful and agitated when they are suddenly exposed to a new experience. Quick, sudden movements of people or objects are more likely to scare the animal than slow, steady movements. Cattle can be trained to remain calm by gradually and gently introducing them to strange sights and sounds that may frighten them.

Handlers need to be aware of a grazing animal's flight zone, or safety zone. Grandin says the zone varies depending on the animal's degree of tameness, which comes from genetic traits (excitable vs. calm), amount of contact with people (see them every day or only twice a year) or the quality of contact with people (negative vs. positive).

A show steer may have no flight zone, but cattle that seldom see people have a flight zone varying from a few feet to 100 yards or more. When a person enters their flight zone, animals will turn away. If a person is outside the animal's flight zone, it will turn and look at the person.

Grandin points out that cattle have long memories. If they have been handled roughly once, they will be more stressed and difficult to handle in the future. Cattle that have had painful or aversive experiences will be more reluctant to re-enter a facility where the event occurred. They have larger flight zones and become more agitated during restraint than usual.

Studies show that cattle can become severely agitated in just a few seconds, but it can take from 20 to 30 minutes for their heart rate to return to normal.

2. Faulty equipment

Since cattle are creatures of habit,



►Cows with calves are another safety concern, with first-calf heifers being especially dangerous since breeders have no way of knowing how a heifer will react to being a mother.

Child safety on farms should be a top priority

Working in agriculture can be a wonderful experience for youth. But it also can be a hazardous experience if proper safety procedures are not followed.

Statistics tell the story. According to the U.S. Department of Labor, 43% of all on-the-job fatalities involving children under age 17 happen in agriculture-related jobs. That's higher than youth deaths in retail, construction and manufacturing combined. Nonfatal injuries to children working in agricultural jobs, while occurring less frequently than for other industries, tend to be more serious when they do occur.

"Many of these ag-related deaths involved children operating or riding on tractors," says Larry Piercy, University of Kentucky (UK) Extension farm safety specialist. "More than half of all tractor-related incidents resulted when the tractor overturned."

In fact, some type of motorized vehicle is involved in more than 24% of all teen fatalities on the job. Machine-related incidents account for nearly 17% of all teen deaths at work, and electrocution accounts for nearly 12%.

"Most, if not all, of these fatalities could have been prevented if proper safety precautions had been followed," Piercy says. "Every farm and farm-related business should have strict rules for when and how children should participate in work-related activity."

According to the Labor Department, some people may not be aware that age standards concerning young farm workers are part of federal child-labor laws. For example, children under the age of 16 working on a farm and employed by someone other than their parents are prohibited from operating certain kinds of equipment and from performing certain kinds of activities. Employers may be fined up to \$10,000 for each child-labor violation.

Fact sheets and other publications on labor and safety issues are available from the Labor Department and many county Extension offices.

— Haven Miller

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anything that disrupts their normal routine — such as loud noises or rough handling — can spook them. Since cattle have close to 360-degree panoramic vision and sense their surroundings differently than humans do, Grandin advises cattle handlers to walk through holding pens, alleyways and chutes and to look at them as cattle would. Does it appear to head into a dead end or make sharp turns into the alleyway? If so, your facilities may need to be altered to ease handling.

Be sure that the cattle-handling facility is in good working condition with no broken boards or improperly working mechanical parts. Also be sure that all people helping work the cattle know how to handle them and how the equipment works.

3. Maternal aggression

Cows with calves are another safety concern, with first-calf heifers being especially dangerous since breeders have no

CONTINUED ON PAGE 340

way of knowing how a heifer will react to being a mother. Grandin says a good rule to remember is, if a cow was overprotective of her calf once, she'll probably be so again. When protecting a calf, cows can be lightning quick if they decide to charge. It is important for anyone working with cow-calf pairs to be aware of the situation and to know the signs of an aggressive cow.

4. Male-dominance aggression

Grandin warns breeders to be cautious of the hand-fed, or bucket-fed, bull calf

because it may become dangerous when it grows up and likely will be the one that can cause serious injury.

Bulls that grow up with other cattle learn that they are bulls, while individually reared bulls may think they are people and may attempt to challenge a person to exert dominance. If they want a bull that is safe to be around, Grandin advises, breeders should let the cow raise it. An orphan bull calf should be castrated or placed on a nurse cow.

There's more

Grandin suggests these other handling tips to improve safety.

► **Lead rope.** A boy in Colorado was killed by dragging when he tied his steer's lead rope to himself. The lead rope on an animal *never* should be wrapped around a person's hand or tied to a person in any way.

► **Slow movements.** Move slowly and deliberately around animals. Sudden movements may cause livestock to spook.

► **Gentle handling.** Managers must train and supervise employees properly. Rough or

abusive treatment of animals never must be tolerated. Accidents are more likely to occur when animals are agitated. The use of electric prods should be minimized.

► **Well-trained horses.** Well-trained, quiet horses should be used for feedlot and ranch work. Cattle handlers have learned from experience that partially trained or flighty horses increase accidents.

► **Calf table.** One major ranching company reported that accidents occurring while roping calves for branding were the No. 1 cause of workers' compensation

claims. Replacing roping with a calf table reduced accidents.

► **Proper shoes.** Wear sturdy shoes to reduce injuries caused by animals stepping on your feet. Cattle handlers who use horses to work cattle should wear shoes with heels when riding to prevent their feet from going all the way through the stirrups. People have been killed when they fell off a horse with a foot hung up in a stirrup.

People who work with large animals must realize that it's impossible to make the handling of livestock completely safe

because of certain inherent dangers. Since it is impossible to eliminate risk, even when all precautions are taken, accidents still can happen. However, with a combination of common sense and proper education about modern methods of livestock handling, animal welfare and productivity can be improved and accidents lessened.

