



What's Normal and What's Not?

Detecting signs of illness in cattle.

by **Heather Smith Thomas**

Conscientious stockmen learn to tell the difference between a healthy animal and a sick one. It helps to be able to detect subtle signs of early disease. Early detection and early treatment can often make the difference of life or death, quick recovery or prolonged treatment and convalescence.

Disease is any condition resulting in impairment of normal function. Individuals tend to think of a disease as something caused by infection with bacteria or viruses, but poor health can also be the result of parasites, malnutrition, congenital defects or injury — anything interfering with proper body function.

The best way to become a good judge of health and a reader of subtle early signs of disease is to spend time with the cattle. Seeing them on a regular basis enables producers to recognize the signs of health or sickness.

Brandon Dominguez, DVM, MS, clinical associate professor of large animal clinical sciences at Texas A&M University, says when going into a pen or pasture to check cattle, the first impression can often give clues regarding whether any of them are not feeling well. "If one is off by itself, or you notice one that's not eating when you'd expect them to be eating, this might be a tip that something is wrong," he explains.

According to Tom Hairgrove, Ph.D., associate professor and Extension specialist at Texas A&M, it's also helpful to assess body condition. "When looking at a group of animals to assess health or signs of sickness, the things we need to look at include current nutritional status," he advises. "If there are 20 cows and two of them look poor and 18 are in good condition, this may be a clue. Sometimes we'll see weight loss associated with certain problems as one of the first signs."

Body language

The healthy cow or calf is bright, alert and has a good appetite or is grazing with the herd during times of day the cattle are foraging. Dominguez says cattle generally graze during the mornings, late afternoon and evening, lying down during the middle of the day — especially during hot weather. If an animal is slow to come to feed or spends more time than herdmates lying around instead of grazing or eating hay, take a closer look.

Glennon Mays, Ph.D., clinical associate professor at Texas A&M, says the first thing to note is an animal off by itself. Any animal that doesn't show up or is slow to come to the feed should be looked for or checked more closely.

"An older bull may get lazy and might be sluggish coming to the feed wagon, and you might be tempted to think he's just lazy and slow — and pour out the pellets and go on to the next group or pasture," he explains. "But it's a good idea to stick around a bit longer to see if that animal actually comes to the feed and whether or not he eats." Sometimes an animal will start eating and then quit, just nibble or push the feed around. Make sure each animal is actually eating normally and with good appetite.

Any animal off by itself should be cause for concern — unless it's a cow that leaves the herd to deliver her calf. A sick or lame animal often seeks solitude to avoid the jostling and pestering from bossier individuals. Curious herd members or subordinate animals that ordinarily defer to that individual may take advantage of the sick one and chase it around. It's a natural instinct for the compromised individual to leave the group when not feeling well or unable to defend itself.

Any animal lying down when the rest of the herd is eating should be cause for suspicion. If it seems healthy and normal in other aspects, make it get up and walk a few steps to see if it's lame.

The sick animal may be dull with ears drooping or may have other subtle signs that give clues to a problem. Not chewing the cud may be indicative of pain, fever or a digestive problem that halts rumen activity. An animal with a high fever will not chew the cud. On closer inspection, look for sunken eyes, a moist cough, a snotty nose or any other indication of illness.

If it's a very young calf, make sure it's nursing, and the cow's teats are not too large for the calf to suck. Make sure the cow doesn't have mastitis, sore teats or some other problem that



interferes with her ability to produce milk or to allow the calf to nurse. If her udder is sore, she may be kicking the calf off.

Pay attention to any cow with a full udder. If her calf hasn't suckled recently, the calf may be ill. Often the first sign of sickness in a young calf — even before it shows signs of pneumonia or breaks with scours — is that it doesn't feel like eating. "If the cow has a big, swollen bag, this could be an indication that her calf is sick or she has mastitis and isn't letting the calf nurse," Dominguez says.

Charlie Deyhle Jr., DVM, Canyon, Texas, has practiced veterinary medicine for 40 years. "It's crucial to be able to identify the calf that doesn't feel well," he explains. "Usually your first impression is correct." Even if the calf doesn't feel good, it may become more alert as a reaction to seeing the rancher. Cattle are prey animals, and the calf doesn't want to let anyone know it doesn't feel good, because it doesn't want to be singled out by a predator. It's wise to quietly observe cattle from a distance at first before they become aware of your presence — in order to detect any that might be a little dull.

Know what is normal and not normal for the herd. "We have to consider breed disposition and general attitude," Deyhle says. "If you look at them early in the morning when they are waking up, this can give clues about how they feel — when they are just getting up and stretching. We see most of the signs of nasal discharge and congestion early in the morning before they have been up and moving and warmed up with sunlight on them."

Mays suggests producers might even look at them with binoculars before they get close to them. He says it makes it easier to pick out any individuals needing a closer look — before they become alert and harder to pick out of the herd.

After cattle have been worked or processed, they need to be closely monitored. "If they've been handled, transported, put down chutes or restrained, check them closely afterward," Mays advises. "Maybe one of them got a foot entrapped, and it didn't cause a noticeable problem at the time, but a day later it might be a problem." He further stresses the importance of checking cattle after processing because they could be blind, ill or lame.

Abnormal posture

Any abnormal posture should be noted. Resting a leg or sticking it out to the side instead of putting full weight on it may mean a sore foot or leg and lameness. Arching the back with all four legs bunched up under the body usually indicates abdominal pain or chest pain due to pneumonia. Downward arching of the back may mean severe abdominal pain. Wide-placed front legs could mean

chest pain or difficulty breathing. A bloated animal will try to stand with the front end uphill, where the front feet are higher, for easier belching.

"An animal standing with an extended neck should be looked at more closely," Mays notes. "It may be having trouble breathing, or in pain. An animal with a cocked tail and maintaining that tail position — that hasn't just defecated or urinated — may be another clue." He says if the cow is pregnant and she's straining, this may indicate a dystocia. In contrast, the same symptoms with a stocker animal may mean an abdominal issue. Some infectious diseases or toxins can even produce abnormal posturing in tail carriage, the way they are standing or position of head and neck. He says any different, abnormal or unexpected posturing of the body could be signs for certain things that need investigating.

When an animal is lying down, an abnormal or awkward position may mean a sore or dislocated leg or an attempt to ease internal pain. An animal with pneumonia may lie on the breastbone for easier breathing. Whereas a sick animal often lies with its head tucked around toward the flank. This is also a normal sleeping position, but if the animal is not sleeping, the head-tucked-around position may mean it's not feeling well. Lack of desire to get up when approached is usually a clue animals are sick.

An animal that feels good will usually stretch when it first gets up and show interest in its surroundings. The healthy animal is alert and perky and may also spend some time licking itself. When traveling, animals move freely and easily with energy.

By contrast, sick animals may be dull with decreased interest in things around them with less response to external stimuli and may be more tuned in to their own internal discomfort. They may be standing with eyes closed and head drooping. If they are lying down, they get up slowly or with effort and may not stretch. An animal would usually be too preoccupied with discomfort to lick itself. Movement may be slow and methodical or pained. If the animal is forced to move, it will usually walk slowly rather than energetically. An animal with pain, discomfort or fever doesn't move "right" and lacks the sparkle of vitality and health of a normal animal.

"If the animal moves with soreness or discomfort, this should make you suspicious," Mays notes. "Sometimes they might drag their toes, especially the hind legs, or knuckle over in the ankle joints."

If the animal is lying down, make it get up and move. Just because it's lying there, seemingly comfortable and chewing the cud, doesn't mean there's no problem. "You need to check on that animal's ability to rise and stand, and walk off," Mays advises. "Maybe that individual is three-legged lame, but you won't know until you make it get up. Cattle are stoic and have a high pain tolerance, and first appearance might be deceptive."

If the herd is being moved from one pasture to another, the sick individual ends up at the rear, traveling slower. The more serious the illness, the more indifferent the animal may be to its surroundings and more reluctant to move.

At the other extreme is the abnormally excited animal. If the animal is overly alert or anxious, constantly looking around or restless — not acting normally — this behavior may be a sign of constant pain or discomfort. This may be the case with a cow in early labor or an individual suffering from some other condition causing pain or distress. Abdominal pain may cause an animal to be restless, kicking at the belly or switching the tail, looking around at its flanks or lying down and getting up repeatedly.

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Quietly observe the cattle from a distance before moving in to more closely inspect a potentially ill one.



Spending extra time after feeding to assure the cattle are actually eating can reveal health problems not noticed otherwise.

An animal bothered by flies may also be restless, even to the point of running with its tail in the air. The animal may stop suddenly, kick at the belly, swat at the flanks or belly with its head, trying to knock the flies off its body. A rancher might have to spend several moments observing the animal to determine whether flies or internal pain causes the restlessness or anxiety that is causing the colic. Calves with acute gut pain from a toxic intestinal infection, for instance, may run wildly and then throw themselves to the ground or stop suddenly and kick at the belly. Excitability, running and abnormal behavior or running into walls or fences can be due to serious diseases like rabies that affect the brain and cause nervous disorders.

Respiration rate

In the resting animal, respiration rate can give a clue regarding sickness or health. On a hot day, it may be hard to tell if a fast-breathing or panting animal has a fever or is merely hot. Cattle don't have as many sweat glands as a horse or a human, so they must breathe faster to cool themselves during hot weather, using air exchange in the lungs as a cooling system.

"Watch movement of flanks or ribcage to count respiration rate," Mays advises. "Environmental influence can make a difference, however, in what might be normal. If it's mid-afternoon on a hot summer day we expect an increased respiration rate even if the animal is in the shade. If it's 9 a.m., the respiration rate should be lower. If the animal has increased respiration at that time of day, look at other animals in the group and compare."

Previous exertion will also elevate the respiration rate. Appearance of the animal can give clues as to whether it's ill or merely hot. If in doubt, restrain the animal and take its temperature.

Abnormal breathing may be audible if the animal is having trouble drawing air into the lungs through narrowed airways or having trouble forcing it out due to compromised lungs. A respiratory problem may also cause exaggerated flank movements.

Eating habits and digestion

Another clue regarding health or sickness is whether eating habits are normal. "Look for lack of gut fill," Deyhle says. "Sick cattle don't eat, and cattle that don't eat get sick. This may be influenced by what you are feeding them, but most cattle go off feed if they are sick."

On closer inspection, the breeder should ask himself, "Does the animal chew and swallow properly, or is swallowing painful? Is saliva or feed drooling from the mouth? Is the animal unable to belch up and chew the cud? Is cud spilling from the mouth? Is the animal coughing up food or regurgitating stomach contents out the nostrils? Is there grunting or extra effort involved in belching up the cud? Is the animal grinding its teeth?" Overactive "chewing" and teeth grinding are signs of belly pain, especially in calves. A calf with a digestive problem or gut pain will often grind its teeth.

"Is fecal material red, brown, black, transparent and horizontal (watery diarrhea shooting out in a stream), or normal?" Deyhle asks. The color and texture of calf feces or cow manure can tell

someone a lot about what the animal is eating and the health of that animal.

With some digestive problems, the animal becomes constipated, and the act of passing manure may be difficult and prolonged, with straining and pain. Manure may be firm and dry or absent if there's gut blockage. If it is possible to get the cow up, it's wise to make her walk and follow her to see if she passes manure. If she doesn't, there may be a problem. At the other extreme is diarrhea. Severe diarrhea in some instances, as in coccidiosis, may cause so much irritation to the rectum that the animal strains continually and may prolapse the rectum.

Urination may be absent or scanty if the animal is dehydrated or has not been drinking enough. Urination may be difficult if there's obstruction or partial blockage of the urinary tract, such as a bladder stone or inflammation of the bladder or the urethra. The animal may dribble small amounts of urine, remain in urinating position for a long time, kick at the belly in pain or stand stretched.

Much information can be gleaned from noticing an animal's general attitude and behavior from a distance, while it's still preoccupied with

its own problems, before it focuses on the breeder and becomes distracted. When checking cattle, try to get a good overview of the group before disturbing them or distracting them by coming closer. Unobtrusive observation can give a hint as to whether there's anything wrong. A problem can be recognized if there's an animal acting in a dull, abnormal way or is exhibiting an unusual posture or position that might indicate pain or distress.

Small clues can lead to determining what might be wrong. Awareness of little signs can make the difference in discovering or missing the early warning clues of sickness, lameness or some other problem that might need attention.

"A person sometimes takes a quick overview, counts the animals, and if they are all present and accounted for, might not look any closer," Mays explains. "Maybe we were in a hurry or distracted, have other things we need to be doing, and we didn't notice that a cow was breathing fast, had a lump on her jaw that wasn't there the last time we checked, or a swollen udder from mastitis."

There is no substitute for knowing the cattle well, and being tuned in to various aspects of bovine behavior can shed light on a lot about their well-being. A head count or a once-over-lightly look without "seeing" each one as an individual, may mean missing important clues. By the next day's observation, a sick animal may be worse, or the ailment more difficult to treat or reverse. Cattle checking is an art, primarily dependent upon the ability to "read" the cows and to detect subtle behavior changes. **HW**



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