



The Trouble with Lush Greens

Take steps to avoid cattle bloating on pastures this fall.

by Heather Smith Thomas



Bloat can be a frustrating problem and sometimes a serious emergency. Fall pastures may be risky under certain conditions. Carl Dahlen, beef specialist at North Dakota State University, says legume pastures, like alfalfa, generally have the greatest bloat potential, especially if they are lush regrowth in an immature stage. Some producers put up one or more cuttings as hay and graze the regrowth in the fall.

“Some people simply graze alfalfa pastures in a rotational system, using them twice or more during the summer and fall,” Dahlen says. “It might be the third time through the pasture, and it has lush young plants after irrigation or fall rain. Any time we have lush vegetative growth, alfalfa can be dangerous for bloat.”

The regrowth may be starting to mature following a frost or freeze, but it may take several days to be dried down enough to reduce the risk for bloat. “The few days immediately after a frost, the bloat potential actually is much higher,” he says. “The frost ruptures some of the cell walls in the leaves. Bloat is accentuated by small particles and the availability of rapidly fermentable material.” The frost already started the breakdown process so the animal bloats more readily.

“Even though this is most common in the fall after a frost, I occasionally get calls from producers in the spring if we had late frost after the alfalfa had started to grow,” he says. “In these situations producers can also lose cattle to bloat.”

Weather makes a big difference on some pastures. “Often our frost comes in unpredictable streaks,” Dahlen says. “We might get a cold night and the alfalfa looks like it is dead, but if there is any green left in it, there is still potential for bloat. One night of light frost won’t be enough to wilt and dry it. When we talk

about grazing after a frost, we need to look at the whole plant and make sure it is indeed wilted and dry. It might take a week or even longer before that alfalfa is safe to graze. There is only so much we can tell by looking at it, so it’s usually safest to wait.”

Determining risk

There are some general rules of thumb, based on several studies, for determining if alfalfa is risky or not, including plant height and its stage of maturity. “That research is interesting, looking at different heights of alfalfa to graze,” he says. “Incidence of bloat was reduced with greater plant height but not eliminated. Also, there may be portions of the pasture where the plants are shorter and less mature.”

Dahlen explains cattlemen need to look at pastures to determine the distribution of alfalfa or other bloat-risk plants compared with grass. Even if there is a high percentage of grass, the mix of plants is generally not uniform throughout the pasture. The cattle may seek out areas that have more alfalfa and selectively graze those plants.”

The question then is how to manage these pastures. “If the plants are uniformly dispersed, we can use an intensive rotational grazing, so the cattle don’t have the opportunity to be as selective,” he says. “But if you have big pastures with regrowth and no way to break them up into an intensive rotational system, then the bloat potential might be higher.”

Anything that interrupts normal feeding activity, such as stormy weather, can be a problem. Cattle may stop eating awhile and then go back to grazing more hungry than usual, loading up on lush feed. A general guideline is to not put cattle on legume pastures when they are hungry.

“If we are introducing cattle to a new pasture, it might help to fill them up on hay before they go out,” Dahlen says. “Don’t turn

out hungry cattle. The thing that drives bloat is a big accumulation of lush, highly digestible plants.”

Feeding cattle hay before turning them out does two things, according to Dahlen: 1) It fills the cattle up so they are not as hungry, and 2) it delays turnout until after the dew is gone.

“In some parts of the country people are swath grazing, cutting the alfalfa before letting the cattle into that portion of the pasture, so it has wilted for at least 48 hours,” Dahlen says. “Then it’s not so lush and green. Some people set up the pastures to be swath grazed, and let the cattle go into them after they’ve had a killing frost.”

Prevention consists of keeping the fermenting, gas-producing breakdown of lush feeds from creating froth that rises above the level of the valve out of the stomach, hindering the animal’s ability to belch. As a preventative, bloat blocks (molasses-based salt blocks that contain poloxalene — an agent that breaks up the foam) are very helpful, if the cattle eat enough of a block to prevent the problem. All other sources of salt and mineral must be removed so cattle will want to eat the blocks.

“These blocks or lick tubs work if the cattle consume them,” Dahlen says. “Set them at places where the cattle naturally go. Putting them near watering areas makes sense, but some cattle don’t go to water all the time, especially when eating lush forages that have a high-water content. In cool fall weather, they may only go to water every other day. But the way those products work, the cattle need to have daily intake. So we may need to put the products out in the lush areas in addition to the water source, and whether the cattle eat them or not is still a question.”

Some cattle are more prone to bloat than others. There is some thought that bloating is a heritable trait. “Some of the heritability studies were done in New Zealand where they had a high susceptibility line and a low susceptibility line of dairy cattle,” Dahlen says. “One of the major genes for bloat susceptibility was found to be recessive, and the high susceptibility group did experience more bloating episodes than the low susceptibility group. However, a portion of the cattle in the low susceptibility group still experienced bloat, so there’s no guarantee.”

There is evidence that some bloat-prone animals may have a lower valve between the rumen and the esophagus, more easily covered with froth. Also, Dahlen says some research has found that certain animals’ saliva is less protective.

“There are plants we tend to think of as having bloat risk, but the main thing is how lush that plant is at the time of grazing. Immature growth stages are the key,” he says. “Cattle sometimes bloat on wheat pastures and some of the grasses. But in these instances, the pastures are usually very lush; plants are young and tender with no tannins.”

Grazing varieties of alfalfa are available. “Using these reduces incidence of bloat but does not eliminate the risk,” he says. “Some people simply graze the final regrowth of their alfalfa fields in the fall. If they are grazing their hayfields, however, they also need to be concerned about stage of plant development as alfalfa goes into winter.”

Producers shouldn’t damage the alfalfa stand by grazing it down too closely when it is trying to put nutrients down into the roots to survive winter dormancy.

Treatment

If animals are bloating, intervention must be done quickly to keep them from suffocating.

“These are things you should discuss with your veterinarian,” says Dahlen.

If the animal is not yet in danger of suffocation, the first option is to use a stomach tube. “If we can get a tube down into the stomach we can let out gas and put in something to break up the froth,” he says. “This is the least invasive treatment. We need to quickly assess the situation and see what level of bloat we are dealing with.”

“If suffocation is imminent, we take a different course of action. If the cow is down and gasping, we need to get a trocar pushed through her distended left flank, into the rumen, to let off the pressure,” he explains. “If you don’t have a trocar, a sharp pocketknife works. It will make a larger opening, but your veterinarian can come later to clean that wound and stitch it up. The veterinarian will probably administer antibiotic to avoid peritonitis.”

Dahlen says it helps to have a plan rather than being in a panic.

“A standard caution when putting the tube down — make sure the cow swallows it,” he explains. “Get it to the back of the mouth and this will naturally stimulate a swallowing action. The animal



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must swallow it or it will go into her windpipe instead,” he says. This is the same principle as inserting a nasogastric tube into the nostril to the back of the throat — it must be swallowed.

“There is always the danger, just like when you are tubing calves, of getting it into the wrong place,” Dahlen says. “This is why we work with the animal, just like when calving out a cow; in that situation you are not just pulling — you are working with her.”

When inserting a stomach tube, the animal must be allowed to swallow it. Individuals can work with a veterinarian to gain more confidence in this procedure.

Once the tube is in the rumen, any gas should be allowed to come out. “Then pour in some mineral oil or one of the products designed to reduce the amount of foam in the rumen,” Dahlen says. “Then after we treat the cow and the rumen is no longer distended, we can’t just assume she’ll be ok. We need to continually monitor her and see how she is responding and if she has any recurrences.”

Some animals experience chronic bloat, and it’s best to remove them from those pastures. “When we move cattle into risky pastures, there will be some bloat cases that occur right away, but usually the greatest proportion will occur a couple days after they were put in,” he says.

Bloat can also occur after applying a pour-on or a drench to kill grubs in the fall. The dying grubs create swelling or inflammation around the esophagus. This obstructs feed passage and hinders belching. “Bloat can occur 10 to 24 hours following the treatment,” Dahlen says. “If that’s the case, and we know the animals have recently been treated, using a stomach tube to relieve bloat would not be a good idea. Forcing it down the inflamed, narrowed esophagus could damage the swollen tissue. To relieve the swelling, antihistamines can be administered, under a veterinarian’s direction.” **HW**

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