

# Care For Your Animals At The Source

## Some Tips On Creating an On-Farm Preventative Livestock Health Program

EDITOR'S NOTE: This is the second of a two-part series.

BY RITA BRHEL  
P&D Correspondent

A major part of preventative veterinary care is in the setup — creating facilities and a production system that promotes health through management decisions that match an animal's biology, such as a grazing system for ruminants, which are animals designed to graze. Another big part is selecting animals that are naturally resistant to disease.

But first, livestock producers need to be able to pick out unhealthy animals from their herd. Ann Wells, DVM, of Spring Pond Holistic Animal Health in Prairie Grove, Ark., says that within the current treatment-based veterinary model, many producers have lost touch with this intuition.

"This seems like a no-brainer, and it is," Wells said, "but everyone gets busy and lazy and has to relearn basic preventative care."

She suggests first looking at the herd as one from a distance. Unhealthy animals will be the stragglers, those that aren't doing what the rest of the herd is doing. The producer can then compare the animal's abnormal behavior, such as limping or diarrhea or limp ears or sluggishness, with the behavior of healthy animals to get a sense of the difference.

These unhealthy animals don't always have a disease that can be treated or even detected clinically. For example, animals that are bred to be champions in the show ring often do not do well in a production setting.

"This animal is never going to have a high level of vitality," Wells said.

In any herd, there are three levels of animal health, and producers can work toward a more resilient herd by selecting for naturally resilient individuals:

1. Harmonious — These animals have been selected or bred specifically for the individual production system.

2. Profitable — These animals are healthy and are making money but there are still some areas where they fall short of harmonious and do cost the farm money. These shortcomings can be selected against in future replacements.

3. Unprofitable — These animals are prone to illness, are costing the farm, and need to be culled.

### THE BEST PREVENTION IS STRESS REDUCTION

While there are individual animals that are more resilient than others, producers need to start with a foundation of health-driven management practices so that the herd as a whole as the best potential for disease prevention. The core of preventative animal health is stress reduction.

Stress can be greatly upsetting to an animal's immunity. Stress, whether mild or severe, releases hormones that instigate the fight-or-flight instinct, designed to relieve the animal of the stress event. In the process, the digestion, growth, and reproduction processes shut down. In a single stress event, such as a pack of dogs running the herd around, this reaction comes and goes and the effects of the hormone end. But in a chronic stress event, even a series of mild stress events such as an overstocked drought-stricken pasture, the effects of the hormone on the body continue and the animal's immunity decreases, resulting in an animal much more likely to get sick.



Mike Wallace of Double M Ranch in southern Nebraska vaccinates his ewes as part of his preventative animal health program.

PHOTO: RITA BRHEL

"One big stress is the same as many little stressors," Wells said. However, even more so than one severe stress or mild but chronic stress, "the worst stress is intermittent stress, so let's say that pack of dogs comes back an hour later just when the cows settles down."

Stressors are anything that cause disruption of an animal's normally relaxed demeanor and biologically driven life processes, such as poor nutrition, weather extremes, chronic disease, parasites, birthing, and poor handling. In addition, some animals have a genetic predisposition to poor stress response.

"There's a lot of research being done to find lines that respond better to stress," Wells said. "They still get stressed, just respond differently."

Producers don't need a specific study to pick out some of the more stressed animals in their herds, however. They just need to observe their social behavior for a time. Submissive animals — the animals at the back of the herd and that step away anytime another animal wants to challenge dominance — are more stressed than herd members, Wells explains.

### MORE ON MANAGEMENT DECISIONS

Much stress can be reduced through culling susceptible animals, good animal husbandry, sanitation, vaccinating, quarantining new animals, and providing good nutrition.

Of these, producers are least likely to quarantine. New animals should be kept in a pen far enough away to prevent nose-to-nose contact with other animals for seven to 10 days. This is long enough to observe the animal for signs of illness that could be transmittable to rest of the herd.

"One of the worst cases of foot rot I've ever seen was a man who brought in a new ram and didn't quarantine him, who had foot

rot," Wells said. "It spread through his whole flock, and he dealt with it for two years, ending it finally by culling many of his ewes."

Another management downfall, especially during a drought, is maintaining good nutrition.

"Nutrition is the cornerstone of your herd's health program," Wells said. "Availability and quality of forage is going to change depending on the time of the year and the animal's nutritional requirements."

Growing and lactating animals have the highest nutritional requirements, but it's not necessarily based on the size of the animal, she says. For example, a growing steer requires more quality feed than a growing lamb, but a lactating ewe with three lambs requires more than a lactating cow with one calf.

In addition, even if pastures look lush, that doesn't mean that they will be well-utilized by the animals grazing it, Wells adds. Cattle prefer grass but will eat some forbs, sheep prefer forbs but will eat grass, and goats prefer browse but will eat forbs. That's why multi-species grazing — grazing more than one livestock species together or following one species of livestock with another — works, but Wells cautions against other grazing trends of late, such as mob grazing, which works as a short-term strategy but isn't a healthy, long-term grazing strategy.

Integral to assessing individual animals for their health status is grading animals according to a Body Condition Score (BCS). BCS for cows is graded one to nine, with one to three being too thin, four to six being good, and seven to nine being too fat. Sheep and goats are graded one to five, with one or two being too thin, three being good, and four or five being too fat. BCS is ranked by observing how much certain points of the animal's body is apparent due to fat thickness, including the hip bones, top of the

spine, the transverse processes, and the ribs. Wells recommends feeling the animals as well as observing and color of the animal can trick the eyes. BCS should be scored for each animal at breeding time, at calving/lambing/kidding, and going into winter, with the latter being the most critical, as this is when weather extremes are likely to be most stressful.

"Weather conditions — this is the one thing we have no control over," Wells said.

Animals more likely to withstand cold stress are those with lower maintenance requirements, which tend to easy adapt to the change in seasons, have more fat cover, and have a longer hair coat. Producers can help reduce cold stress by providing wind protection.

All animals can be affected greatly by heat stress, which combines high temperatures with high humidity and no wind. The best thing producers can do is provide shade and constant availability of water.

Another environmental condition that can cause stress to animals, but often goes unnoticed by producers, is mud. Dry lots are also challenging during weaning when dusty conditions can cause respiratory problems in stressed calves and lambs. Wells suggests fenceline weaning for calves and letting lambs wean themselves in the pasture.

Parasites are a normal problem for all livestock, but especially for sheep and goats. Because of the tendency for internal parasites to build up resistance to treatments, veterinarians are increasingly promoting selecting naturally resistant individual animals that always carry a light parasite load but whose health is not affected, and then only treating with anti-parasitics on problem years. Wells adds that forage type can also affect the parasitic load: Some plants, like chicory and trefoil, naturally reduce parasites on pastures. In addition, parasite num-

bers are greatly influenced by weather conditions and pasture stocking rates.

"Parasites were a non-issue last year, because it was so hot and dry," Wells said. "That's why the animals coming from the West have to adapt to the parasite load here. Always remember that the majority of the parasite's life cycle is outside the animal, so pasture management is really important."

No matter the growing conditions, she advises producers to never graze below four inches or to graze close to manure, to do rotational grazing versus continuous grazing, and to follow one species of livestock like sheep with a different species like cattle.

"I have had 100 head of cattle for 15 years and only deformed five animals in that time," Wells said.

Many organic producers swear by alternative therapies for internal parasites such as cayenne pepper or herbal remedies instead of medical anti-parasitics. Many of these don't work unless they are done early and are no more useful than the overall preventative management plan, she adds.

"If small ruminant producers do not have some sort of overall parasite management plan, they will not be raising small ruminants for long because they'll end up losing an entire lamb crop or an entire kid crop," Wells said.

Herbal remedies, in particular essential oils like cedar oil, on the other hand, can be helpful in fly control, she says, as is using diatomaceous earth, selecting natural resistant cattle breeds like Brahman, and letting poultry free-range in the pasture.

### WHERE VACCINATIONS FIT

Vaccinations are an essential part of a preventative health program, but Wells cautions that they still work best as part of the whole plan.

"They are a cheap insurance plan, especially for a new producer," Wells said.

The problem occurs when producers use vaccinations as their sole prevention strategy and let sanitation and other basic preventative management strategies go by the wayside. When this happens, vaccinations are far less effective and, for some individual animals, provide no protection. The rules of vaccinating include using the ones that are needed for the local area, to wait to vaccinate young animals after two months because the mother's immunity is passed through the milk before them and will cancel the vaccination, and to follow the instructions on the bottle.

"If it says to refrigerate, then do it," Wells said. "If you throw it in your truck and drive around all day, your vaccine is useless."

### WHEN PREVENTION DOESN'T WORK

No matter how thorough a preventative health program is, there will still be times when an animal needs treatment for an illness or injury. The conventional medications work, but so do many alternative treatments for non-parasitic controls. Producers can learn more at [www.ahvma.org](http://www.ahvma.org).

"Many people regard these alternative treatments to be quackery, but they are not," Wells said. "Most work very well, as do conventional veterinary products."

And when a preventative program doesn't work, it's an opportunity for producers to learn what to change to improve their operation.

"To achieve the goal of healthy livestock, understand that there are no cookbook recipes for success," Wells said.

## Opinion

# New Sorghum Research Gives Promise to Historic Crop

BY RITA BRHEL  
P&D Correspondent

Sorghum doesn't get nearly as much attention in our area as it should. I remember, as a kid, seeing sorghum fields scattered around the countryside, part of the crop rotation with corn and soybeans and as common as winter wheat. I hardly see it anymore. Every once in a while, I'll see it planted as the buffer crop between seed corn patches but very rarely grown as a crop of all its own.

It's really too bad, as it's a great crop for dry areas.

I'm excited to see more funding going into research to develop higher-yielding grain sorghum. This was announced recently as a partnership between the United Sorghum

Checkoff Program and Chromatin, spending \$1 million over the next five years on crop improvement.

Biotech corn and soybeans have greatly boosted yields over the last decade, and that makes it understandably difficult for producers to choose a lower-yielding crop. Sorghum is still a good option for dryland areas prone to drought like Kansas and Texas and Louisiana and Arkansas, but also South Dakota, which is ranked fifth of the 21 sorghum-producing states. As we all know from last year, dryland corn and soybeans — biotech or not — can't handle drought any better than other crops that need more, rather than less, water to grow. Sorghum is one of those that don't need as much water.

Sorghum is touted as "drought tolerant" and as one of the truly "indispensable" crops required for the survival of mankind through the ages. The earliest record of sorghum was in 8,000 B.C. near the Egyptian-Sudanese border before spreading throughout Africa, India, China, Australia, and finally North America by Ben Franklin in 1757.

I think that crop diversity is a good thing. I think it's good for producers' risk management, and I think it's good for the environment. We're changing our area's ecosystem by changing the

major plants in the area. We have been since pioneers first came out here and broke sod for their crops. This is most certain as many of the endangered species in our area are prairie wildflowers.


Sorghum isn't natural to the area, but it does provide a different habitat for insects, birds, and other wild species than corn and soybeans, especially those sprayed with chemical to kill pests, do.

But maybe I'm a romantic or simply nostalgic, and think it'd be neat to get back to the time

when the landscape was made of quilt squares of different crops rather than just one or two.

Nevertheless, this research for sorghum will help those producers and may open opportunities for new producers in the Sorghum Belt, which does run from South Dakota south through Nebraska and downward, though

you'll be hard-pressed to find much sorghum in the majority of Nebraska, sadly. Sorghum is not only an animal feed and a biofuel but also becoming popular in human foods, too. There is great potential for the crop, and improving yield will catch it up to the times.




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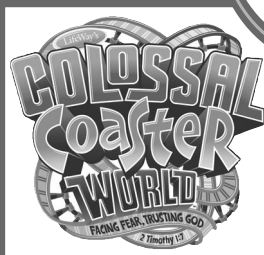
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