Cattle Buyers Pay More for Preconditioned Cattle
Shane Gadberry, Professor - Ruminant Nutrition

While cattle carcass traits moved toward industry goals the past 20 years, feeder calf health continues to lag. According to our Arkansas Beef Industry Assessment, stocker cattle operators in the state indicate there is a negative perception about the health of calves that originate from Arkansas. This perception exists across the entire southeast.

The issue with calf health resonates from cow herd size and a highly segmented industry. Arkansas’s average beef cow herd size is slightly below the national average of 44 cows per operation. According to the USDA 2017 Census, there are 48 beef cattle operations for each feedlot operation, and the feedlot sector doesn’t have a recognizable presence in Arkansas. What this means is calves that leave their birth farm are sold at auction then shipped and commingled with a bunch of unfamiliar calves. The stress from weaning, shipping, commingling, and unfamiliar environment can overwhelm the immune system.

A few things cow-calf operators may not realize is that male calves with testicles or calves with horns create problems for the industry in addition to the expected marketing and shipping stress. A calf castrated by 3 months of age 1) will weigh as much as they would have if sold at 6 to 7 months old and 2) bring $25 to $50 more gross dollars. Why are bulls discounted so much compared to steers? Our experience tells us that bulls experiencing castration stress in addition to shipping stress at 6 to 7 months of age are 2 to 3 times more likely to become sick compared to steers experiencing the same shipping stress. The industry is also realizing that vaccines aren’t as effective when administered to stressed calves. This is why vaccinating at the cow-calf ranch is so valuable. Calves should be far less stressed when vaccinated at home, therefore, better able to respond to the vaccine.

It’s been a year since the University of Arkansas, Division of Agriculture Cooperative Extension Service joined the efforts of sale barns and pharmaceutical companies across the state to grow the number of calves being preconditioned before entering the marketplace. Over the past year, county agents have enrolled 150 producers in the Natural State Preconditioned Calf Program and distributed over 6,000 tags. Producers enrolled in the program are committed to Beef Quality Assurance and to providing documented health history for the calves they market.

Arkansas Livestock Market News for January through March 2019 indicate cattle buyers spent $34 per calf more for value-added calves. After deducting the cost of medicine and tags, this would be about $20 per calf in additional income for marketing calves with a known health history. Cattle buyers also spend more dollars on heavier cattle. There is a negative relationship between weight and sickness, meaning calves from heavier weight groups are less likely to get sick. Yes,
heavy muscling is worth $50 per calf, but weight is also correlated with age. Retaining calves on the ranch after weaning, grazing and supplementing them to gain weight as they grow older, will also create a calf that is less likely to become sick after it leaves the farm. As part of a 300 Days Grazing Demonstration at the Livestock and Forestry Research Station near Batesville, we marketed fall born calves at the end of June instead of at weaning which occurred the first week of May. Over 5 years, calves gained on average 1.5 lbs. per day because Bermudagrass quality and quantity are both very good during this time. The extra weight, along with good market conditions, increased value of these calves $66 per calf, not even accounting for them being ‘preconditioned’.

Many cattle buyers understand the risk and associated cost with treating sick calves and are willing to pay more for cattle that will respond more quickly to management and reduce labor and antibiotic treatment cost. Cow-calf producers can add value to their calf crop by castrating male calves by 3 months of age, holding calves after weaning, and implementing a calf-hood vaccination program.

For more information about enrolling and marketing calves through the Natural State Preconditioned Calf Program, visit with your local county Extension office. Information is also available through www.uaex.edu/gogreen.

Dangers to Cattle Health after the Floodwaters Recede
Heidi Ward, DVM, PhD, Assistant Professor and Extension Veterinarian

Now that Arkansas floodwaters are starting to recede, it is time to discuss some potential health issues that cattle may face in the next couple of months. Normally, special attention is paid to the actual flooding event – isolation of cattle, no access to feed or water sources, movement through contaminated water, etc. However, we must not forget the dangers that arise once the floodwater is gone. These threats can be divided into three main categories: bacterial disease, toxicities and physical hazards.

Bacterial Disease

Producers are always on alert for the potential of infectious diseases creeping into their herds. Most diseases associated with flooding are caused by bacteria – most often from species that are normally found in the environment such as Clostridia (soil) or Leptospira (water).

Diseases caused by Clostridial bacteria include scours, tetanus, Red water disease and Blackleg. Clostridial bacteria can either actively invade and reproduce in damaged tissues of the host or cause toxemia when the bacteria is ingested and toxins are absorbed within the digestive system. Clostridial bacteria also have the ability to go dormant by forming spores that are very sturdy in the environment. Clostridial diseases are not transmitted from animal to animal. Flooding enhances the risk of Clostridia exposure due to wet hooves and legs being easily injured by rocks, branches or even long stemmed grasses. Luckily, cattle on a regular vaccine schedule are vaccinated for Clostridial diseases. If producers have cattle that are not fully vaccinated with a Blackleg vaccine, they should vaccinate them as soon as possible. Cattle may also be treated with antibiotics if an outbreak occurs.

Leptospira is another bacterium that is commonly found in the environment. The bacterium is spread by urine of carrier animals (maintenance hosts) which include rodents, skunks, raccoons and wild boar. Any free-standing water, particularly water after flooding, should be considered as potentially contaminated by Leptospira. If cattle drink contaminated water, they may become infected. Many cattle do not show signs of infection, especially if they are not pregnant or lactating. In Arkansas, the most common sign of Leptospirosis is abortion. Because the organism can also infect humans and other animals, producers should take special care when handling aborted fetuses and placenta. Vaccination combined with antibiotics can be used in the face of an abortion outbreak.

Toxicities

The majority of cow-calf farms in Arkansas are nestled in areas surrounded by towns or industrial operations that produce waste products. Flooding is a common way for cattle to become exposed to toxins from a multitude of chemicals that can include petroleum products, industrial cleaning agents or discarded pharmaceuticals. Contaminated flood water may have an oily sheen or have an odd color. Regardless of how the water looks, residues can remain on pasture even after the water is gone. Producers should be aware of their surroundings to know what kind of toxins they may be facing.

Toxic plants also become an enhanced risk post flooding. In Arkansas, perilla mint and water hemlock are the plants most likely to cause cattle toxicities. Perilla mint normally grows in shaded areas. If eaten in large enough
quantities, cattle can develop a special type of pneumonia that is fatal. Water hemlock is normally found next to streams. Ingestion of the plant, the roots in particular, will cause severe seizures. Flood waters have the potential to allow these plants to germinate in unusual areas that may allow cattle better access. Displaced perilla mint poses an added risk as it becomes more palatable when it is dying from excess sun exposure.

Physical Hazards

Along with unwanted bacteria and chemicals, floodwaters can also bring hazardous objects such as sharp branches, nails, wires and various forms of trash. Cattle are curious creatures and will likely use their heads to probe any large objects they encounter. For this reason, producers should scan the pasture and remove any large objects before the cattle can interact with them. Unfortunately, there may also be small objects on the ground that are not as readily seen by the human eye. If cattle ingest small sharp objects while grazing, they may develop hardware disease or bovine traumatic reticuloperitonitis. This disease occurs when sharp metal objects settle in the animal’s reticulum where the objects punch through the lining and travel through the body. The disease can be fatal if the objects damage the heart. Hardware disease is usually thought to be a dairy cow problem, but floodwaters make the disease a beef cow problem as well. Pregnant animals are more at risk because the uterus compresses the reticulum. Again, producers should be aware of their surroundings. Nearby lumber yards, oil rigs or car parts dealers will increase the potential for small metal objects getting into floodwaters. If in a high risk area, producers should consider feeding any valuable animals a bar magnet to prevent hardware disease.

Veterinary Involvement

Producers who have been hit hard by flooding this season should consult with their veterinarian to develop an action plan. Your veterinarian will be the best source of information when dealing with the overall health of your herd. For information on Clostridial diseases, see the Extension publication FSA3073. For information on Leptospirosis, refer to Extension publication FSA3086. To learn more about common Arkansas plants that are toxic to cattle, see the Extension publication FSA3025 and to learn more about hardware disease, see the Extension publication FSA3071.

Horse Grazing on Small Acreages

Dirk Philipp, PhD, Associate Professor - Forages

Property owners who want to keep horses often face a dilemma: how to fulfill a longtime wish for you loved ones with perhaps little land available. At the urban-rural interface, 5 to 10-acre patches are sometimes developed into so-called ‘ranchettes’ with the purpose of providing larger lots for potential home buyers. While those sizes are certainly large enough to keep 1-3 horses, it lacks all the infrastructure farms usually provide that would keep pasture land productive and in good shape. Here are some recommendations for keeping everyone happy, the family, the pasture, and the horse.

Settle on a forage that can take some abuse

In Arkansas, the most practical options are tall fescue and Bermudagrass. Tall fescue is persistent enough under grazing that fescue is a good forage to start with. Although Kentucky 31 fescue does that job, this variety should be avoided as the alkaloids it produces via the endophyte are health-adverse to pregnant mares. If landowners have the choice, they should opt with one of the novel-endophyte fescue varieties that do not have any detrimental effects on livestock.

Bermudagrass is more prominent in southern Arkansas, but it will readily grow in northern Arkansas as well. This warm-season perennial grass is a good choice for horse pastures as it is persistent under grazing and also under hoof traffic. One of the most important characteristics of this forage is that it can be mowed or bush-hogged very closely and paddocks can be kept tidy.

On larger farms, winter annual forages are a good choice for extending the grazing season and provide horses with a nutritious diet, but this can be challenging on small properties. Planting winter annuals requires may require some form of breaking up the soil surface, so there’s a much higher potential for muddy conditions early than when horses are kept on bermudagrass entirely which is dormant between October and March. Property owners are encouraged to experiment with sod-seeding (overseeding) annual clovers or annual ryegrass into their existing bermudagrass pastures. This way year-round soil cover is maintained with a little less concern for potentially muddy spots.
Evaluating Udder Scores for Use in Selection
Bryan Kutz, Animal Sciences

Herd longevity could be considered the most important selection trait with regards to bottom line profitability. It is also very difficult to identify because it is interrelated with many other traits. So trying to separate the traits affecting longevity can become challenging. Nonetheless, the ability for a calf to nurse unassisted is always an important issue that beef producers need to consider.

Udder quality should be at the forefront when it comes time to make culling decisions. Udder conformation is one factor that affects the calf’s ability to nurse. Calves can have difficulty nursing because of large teats and pendulous udder suspension. This can lead to several problems including delayed consumption of colostrum or teat contamination with mud or debris from dirt lot or calving area. If teats are too big, it becomes difficult for newborn calves to nurse. Damage to teats because of poor suspension can also become difficult to manage. Producers cannot afford increased input costs related to time or labor in managing cows that need intervention at calving to strip out a quarter so that the calf can suckle or to prevent infection.

The Beef Improvement Federation has published a set of guidelines used to describe udder suspension and teat size scores. These are numerical values that reflect the differences in udder and teat quality. These scores are subjective and range from 9 (very tight suspension and very small teat size) to 1 (very pendulous and large teat size). According to the guidelines these scores should be taken within 24 hours after calving, preferably by one person and on the weakest quarter.

Most commercial cowherds have udder scores that will range in the 5 for suspension and 5 for teat size on average. I would recommend producers score their cowherd each year and only keep heifers out of cows that are at least 5-5 but preferably 6-6 or better. Udder quality continuously declines with age; therefore, more aged cows get culled from the herd sometimes before they reach peak production age. Improving udder quality ensures the potential for cows to remain in the herd longer resulting in fewer replacements needed and more efficient and economical beef production. Improving udder quality can be beneficial to producers through reducing the amount of labor associated with assisting calves to nurse and increasing the number of calves weaned per cow.

Get some basic equipment including a bush-hog

One of the most important pieces for small-scale horse owners to own is a bush-hog. Obviously, those require a small tractor as well, but there’s no reason for owning horses and then skimping on equipment that keeps your paddocks in top shape. Horses graze very closely to the ground and will shun any undesired plant, so weeds will become even more visible and persistent. In addition, small acreages are more difficult to set up for rotational stocking, so bringing the canopy back to a single reference height will foster grass tillering and regrowth, will mechanically control weeds, and will open up the canopy for better light penetration.

Managing undesirable plant populations is important not just from an aesthetic standpoint but also from the perspective of horse health. Truly poisonous herbaceous and woody plants occur only rarely in well-maintained pastures, but keep some basic sprayer equipment on hand to spot-spray plants such as curly dock or Johnsongrass which is a common plant in pastures but can pose some risks to horses.

Get the hay situation sorted out

If you make your own hay, assign dedicated hay pastures and keep those separately from your grazing paddocks. This also requires that you need hay equipment, but alternatively horse owners can easily purchase hay from a reputable source. Horse owners should establish a good relationship with their respective hay business contacts to ensure that a consistently good quality, including little dust or mold in the bales, is maintained. If property owners largely rely on hay during winter feeding, it is probably best to keep a certain routine, such as feeding hay in stalls while giving the horses plenty of exercise outside. Putting hay in paddocks instead will foster weed growth, soil compaction, and muddy conditions long-term.