

Commonsense Investments in Herd Health

Veterinarians use these vaccines and practices on their family operations.

Story & photo by
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In a roller-coaster cattle market, it's tempting to cut back spending on virtually everything. But timely investments in herd health pay off in more calves at weaning, and that's the profit center of a beef herd.

Veterinarians Heidi Hart of Bolton, N.C., and Kate Hussman of Louisa, Va., have forged sets of commonsense practices for their family commercial Angus operations. The large-animal veterinarians recommend similar herd health programs to clients with beef herds.

While these programs work on their home ranches, both practitioners suggest that producers work with veterinarians in their own areas to develop health programs based on local conditions and disease issues. A working relationship with a veterinarian also gives producers access to prescription drugs not available over-the-counter.

Nip health problems in the bud

Hart's herd health program starts with calfhood vaccinations and includes practices for mature cows and bulls. This vaccination/dewormer program costs \$23-\$29 per cow-calf pair, Hart says. The higher cost includes two prebreeding vaccinations for heifers that will be replacements.

Calves are vaccinated with a clostridial product at 3 months of age and again at weaning. Calves also receive modified-live virus (MLV) respiratory vaccines at weaning in addition to a pasteurized vaccine if they are marketed to stocker operations or feedlots.

Hart uses a clostridial vaccine to protect against nine diseases, including

tetanus. While most producers vaccinate calves against clostridial diseases, Hart vaccinates calves twice a year and bulls and mature cows once a year due to her belief that a degree of immunity passes from the dam to the calf through colostrum.

"A clostridial vaccination costs less than \$1 per head, and heifers and cows pass immunity through colostrum to their calves," Hart says. "Blackleg most often hits fast-growing calves, and preventing the loss of one calf covers the cost of vaccines for years."

Breeding animals

Bulls and mature cows receive one shot of an MLV respiratory and reproductive vaccine [infectious bovine rhinotracheitis (IBR), bovine viral diarrhea virus (BVDV) Type 1 and Type 2, parainfluenza-3 virus (PI₃), bovine respiratory syncytial virus (BRSV), vibriosis (vibrio) and leptospirosis (lepto)] prior to the breeding season, assuming that the cows were vaccinated twice as heifers with the same product. Additionally, the cows receive a leptoboooster at pregnancy check. Cows and bulls are dewormed once a year with a name-brand pour-on product. In Hart's experience, she says, brand-name dewormers are more effective than generic pour-ons.

The logical place to focus investments in health care is with replacement heifers entering a herd.

Before a heifer's first breeding season, Hart gives each replacement female two vaccinations with a product that combines five-way live viral protection with prevention of leptospirosis (including *L. hardjo-bovis*) and vibriosis.

L. hardjo-bovis is an insidious reproductive problem that doesn't typically cause a dramatic drop in



Heidi Hart and Channing Gooden examine a young bull before breeding season.

pregnancy rates or a storm of abortions. Instead, *L. hardjo-bovis* moves quietly into a herd and slowly takes a toll on reproductive efficiency.

Vibriosis is a venereal disease that causes reproductive problems.

"We don't see many problems with leptospirosis and vibriosis in this area, but I recommend the vaccine as a precaution," Hart says.

Scoring heifers

The bovine practitioner also recommends breeding soundness exams for heifers 30 days before breeding season. A key part of this exam includes palpation of the reproductive tract. Hart scores each replacement on a scale of 1 to 5, with a score of 3 and above indicating the heifer should breed and stand a good chance of conceiving. Since developing a heifer from weaning through the breeding season costs hundreds of dollars, producers should cull heifers with scores of 1 and 2, she advises.

"We've seen several heifers that looked great, but once we palpated their reproductive tracts they were immature or had other problems that would prevent those heifers from becoming productive brood cows," Hart says.

During the breeding soundness exam, heifers receive a temperament (disposition) score on a scale of 1 to 6 based on behavior in the chute and the speed at which animals exit the headgate. Animals in categories 1 and 2 should be easy to work with as brood cows, but heifers with scores of 5 and 6 will probably make nervous, flighty and even dangerous cows.

Research shows that cattle with poor dispositions have higher rates of sickness, gain weight at a slower rate and produce lower-quality carcasses than cattle with good dispositions. As a result, order buyers

pay less for cattle that appear nervous and flighty at sale barns. Disposition is moderately heritable, and calves learn flighty and aggressive behavior from dams and other animals in the herd. Over time, screenings for disposition can improve the overall behavior of a herd.

Family plan

James Kean of Louisa, Va., selects the genetics for his Angus herd and performs the day-to-day management. When it comes to herd health, Kean follows the advice of his wife, Kate Hussman.

For Kean, health care starts when a calf hits the ground. He catches day-old calves and dips their navels (umbilical cord stubs) in 7% tincture of iodine. This simple and cost-effective step reduces the opportunity for bacteria to migrate into a calf's body and cause infections before the umbilical cord closes off and falls away. Tincture of iodine contains alcohol that provides a drying action, while the iodine disinfects.

Ironically, tincture of iodine has become hard to purchase at farm supply stores. Because the 7% iodine solution is linked to making illegal drugs (meth labs), the Drug Enforcement Agency (DEA) now regulates sales of products containing greater than 2.2% iodine. In the future, it's likely that only approved vendors (such as veterinarians) will be selling tincture of iodine.

"I strongly suspect that some of our poor-doing calves in the past had infections caused when I wasn't able to catch them and dip their navels in tincture of iodine," Kean says. "I really try to get this job done when the calf is a day-old."

Kean also gives baby calves an injection of Mu-Se (selenium and vitamin E) to prevent selenium deficiency that causes white muscle disease. The underlying cause of white muscle disease is a dietary deficiency of the trace element selenium

Herd Health Plan

Several companies make animal health care products that are effective. Veterinarian Heidi Hart emphasizes that every producer should consult with a veterinarian who knows the local health issues and disease problems to formulate a herd health program.

Hart and her clients follow the vaccination guidelines for Beef Quality Assurance (BQA). Annual vaccinations include:

- Clostridial (including tetanus)
- Parainfluenza-3 virus (PI₃)
- Bovine respiratory syncytial virus (BRSV)
- Infectious bovine rhinotracheitis (IBR)
- Bovine viral diarrhea virus (BVDV)
- *Pasteurella* and *Mannheimia haemolytica* (respiratory diseases)

Pregnancy checks pay

When all is said and done, pregnancy checking is a cost-effective tool for commercial operations. Since pregnancy checks cost about \$4 per head, and it can cost more than \$400 per year to maintain a cow, identifying and culling open females after the breeding season is very cost-effective.

As veterinarian Heidi Hart checks for pregnancies, she also calls a body condition score (BCS) so the producer can increase nutrition if needed before the critical period after calving when the cow is lactating heavily and preparing to rebreed.

Hart strongly recommends breeding soundness exams for bulls (BSEB) prior to turning them out with cows. A bull's performance is so important to the reproductive efficiency of a cow herd that it only makes sense to make sure the sire is healthy and providing sperm with adequate motility.

In recent years, Hart has started testing bulls for anaplasmosis. This disease causes anemia that results in bulls losing weight and lacking energy, a sure recipe for poor performance during the breeding season.

"Anaplasmosis is transmitted by ticks, and we have our share of ticks in this part of the country," says Hart, who raises cattle near Bolton, N.C.

for the cows, and vaccinations seem worthwhile."

Kean sells his steers in the Central Virginia Cattleman's Association preconditioned sale. To qualify for the commingled sale, calves must have two seven-way clostridial shots and one Bovishield Gold® 5 (contains MLV IBR, BVD Types I & II, PI₃ and BRSV) on the farm before delivery to a preconditioning

facility. Calves receive a second Bovishield Gold 5 vaccination and are dewormed at take-in.

Kean's cows under 3 years old and any young animals are dewormed with a pour-on in the fall, and this treatment also controls lice. Injectable dewormers are used in the spring, primarily on first-calf heifers and calves, Hussman says.

Kean spends approximately \$30 per

head annually on health care products for a 200-cow herd. "I was talking to another cattleman at a sale the other day about how much all the vaccines and health products cost. On the way home, it occurred to me that it costs \$500 a year to keep a cow, so \$30 is pretty cheap insurance to protect a cow and her calf from health problems," Kean says.



(Se). There is a clear-cut relationship between selenium deficiency in soil that leads to deficiencies in plants and in grazing animals.

White muscle disease is rare, but it can kill calves. Mu-Se is available by prescription, and your veterinarian should know if the medication is needed in a specific area.

"Our soil is very deficient in selenium," Kean points out.

Healthy on sale day

At about 3 to 4 months of age, calves receive a seven-way clostridial vaccine and an intranasal dose of shipping fever (IBR/PI₃) vaccine.

"We vaccinate all the calves again at weaning for shipping fever, but ideally you don't want to give the first dose of IBR at weaning as it can overshadow the other shipping fever antigens at this time," Hussman says.

A pinkeye vaccination is given to all animals in late spring. "A pinkeye vaccine doesn't take the place of fly control and a proper mineral program," Hussman says. "But pinkeye is a problem