

Keeping a Clean Herd



PHOTO BY SHAINA HERMEL

What can happen when females from varying backgrounds are brought together?

by Lynsey McAnally, associate editor

Picture this: Early summer grass is waving in the pasture and shiny, well-conditioned replacement heifers are scattered about enjoying the warm weather ...

While few producers would argue against seeing this scene play out within their own operation, there are a few boxes we need to check, according to Lew Strickland, Extension veterinarian with the University of Tennessee (UT), before we can enjoy seeing new replacements integrated safely into the herd.

Working closely with the Tennessee Heifer Development Program to create specialized health protocols, Strickland is uniquely experienced in what can happen when females from varying backgrounds are brought together in the same facility.

“The Tennessee Heifer Development Program brings heifers from several areas throughout the state together to provide custom heifer development to Tennessee

producers. Think of it like kindergarten for replacement heifers,” says Strickland. “You’ve got a lot of cattle coming from different areas, bringing potential disease and being housed together. We work to develop health protocols to lower potential risk.”

In addition to working with the heifer-development program, Strickland helps local producers design health protocols that can work within their own programs.

Whether it’s the heifer-development program, a 5,000-head producer or a 10-head owner, Strickland recommends the same protocol: Check for disease before new animals are brought in, or at least have a designated quarantine pen for new additions to be placed in until they can be tested free of disease.

“With testing, you can know if new additions are clean of disease — because you certainly don’t want to bring something new into an established herd,” says

Strickland. “But we also want to know what’s in our own herd up front. What they are used to, the new animals coming in may not have been exposed to.”

How to combat illnesses

One of Strickland’s first concerns when it comes to disease in integrated herds is bovine viral diarrhea (BVD), especially if the carrier is a persistently infected (PI) animal.

Persistent infection occurs when BVD is transmitted to a calf from an infected mother during pregnancy (specifically between 40 days and 120 days *in utero*). PI animals shed very high quantities of the virus for life, exposing penmates and adjacent cattle to the virus.

“That’s the big point I would like to ensure producers understand: It is absolutely necessary to test for persistently infected BVD in animals coming onto the farm,” says Strickland. “Even if bred

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replacement females test negative for BVD, testing the resulting calves ensures that the calf born to that purchased animal is not a PI calf.”

BVD can be devastating, especially if a producer had a clean herd that now has BVD. Strickland advocates for strict biosecurity. Humans can carry BVD on their bodies, their clothes and inside their nasal passages — meaning BVD could be inadvertently spread from one farm to another via people.

“Go help your neighbor, but just make sure you’re using a little bit of common sense when you visit that neighbor’s herd,” says Strickland. “Maybe wear plastic boot covers and leave those there when you leave. When you get back home, change clothes and take a shower. Take those steps before you go out to your cattle if you go somewhere else.”

Testing and vaccination

Vaccination is not 100% protection, but it certainly does help with protecting the herd, says Strickland. Yet decision-making can stall out when producers begin to consider the plethora of options available on the market. Strickland advises producers consider the unique challenges presented within their own operations before deciding on vaccination protocols.

“I often get the question from my producers: Which vaccine do I use? I know it frustrates them, but I won’t stand there and tell them which

vaccine to use, because it all depends on your operation and what the goals are in your operation,” he says. “What type of operation do you have? Do you have a closed herd? Do you have a herd where you add animals all the time that come and go? Do you have a neighbor that has nose-to-nose contact with you? Or a neighbor who does nothing?”

Regardless of the circumstance, developing a vaccination protocol that works for your cattle and your operation is critical. Ensuring purchased animals are vaccinated — and have an acceptable level of immunity to whichever illness was targeted — is another safety precaution recommended by Strickland.

“I’m not 100% trusting of immunity after vaccination, and that’s because of a research project from a graduate student of mine,” says Strickland. “The animals were supposedly vaccinated, but they had very poor titers. Did they really get the vaccine, or was it not administered correctly? I always recommend producers test to make sure animals don’t have one of these diseases, and then that they vaccinate according to their veterinarian’s recommendations for that unique farm before commingling animals.”

Blood-borne diseases

Aside from illnesses that can be passed nose-to-nose, there are a handful of diseases that can creep up on cattlemen quickly by way of eight legs. The culprits? Ticks and anaplasmosis.

Noting that anaplasmosis has been here in the United States “probably since Noah got off the ark,” Strickland encourages producers to take careful considerations for insect/parasite treatments and when using needles.

“We have the toughest time getting producers to change needles. If you’re not changing needles and disinfecting equipment between animals, you’re potentially allowing anaplasmosis to spread,” says Strickland.

“After some digging in the literature, there was a research project where a clean needle was used on an infected animal and then the next cow — a known clean animal — was stuck with the same needle,” he shares. “Sixty percent of the time disease was passed from that dirty cow to a clean cow, just because the

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PHOTO BY LYNSEY MCANALLY

Integrating new animals into the herd successfully requires developing health protocols to lower potential risk of disease transmission, says Lew Strickland.

needle wasn't changed. So, in my opinion, it's well worth taking the time to change needles."

Pinkeye considerations

Another disease with very small modes of transport is pinkeye. With new animals coming into the Tennessee Heifer Development Program from various locations, the risk of diseases dispersing can be increased without the proper safety and health precautions.

According to Strickland, flies might not always be the suspect when it comes to transmitting pinkeye. He cites a case where hay caused eye irritation and — as cattle scratched on feedbunks, mineral feeders, and hay racks — pinkeye was transmitted.

Testing animals for carrier status confirms a noncarrier or carrier for pinkeye, but the only way you can do that would be for your veterinarian to swab the eyes of any new or suspected carrier animals.

Set up for success

Whether you're retaining or purchasing replacement females, Strickland advises producers to set those cattle up for success.

Make sure females are in good body

condition right before they transition to calving cows. Females that have at least a body condition score (BCS) of 5 have been shown to produce more colostrum and produce higher-quality colostrum than a cow of below BCS 5. Cows with adequate body condition breed back much quicker while providing more nutrition and immunity to their calves.

Another thing to consider is the vaccination status of females going into calving. Strickland notes that many producers will vaccinate females around the time cattle are diagnosed as pregnant or right before preg-check, after she's had her previous calf. While timing vaccination at a safe point for new pregnancies is important, producers need to schedule working their herd so females are adequately protected by vaccinations year-round.

Protecting calves

We've established that vaccinating females offers protection to their newborn calves, but timing is extremely important for calfhood vaccinations, as well. Don't vaccinate that calf too early.

"Traditionally, we have said wait three to four months before vaccinating. But if you're

running into issues, you can vaccinate earlier — down around 5 to 6 weeks of age — especially if there's an outbreak of something. You can vaccinate a little quicker to give that calf protection through whatever the episode might be and have time to get that situation straightened out," says Strickland. "Once again, work with your veterinarian to see what works best for your farm."

Initial vaccines while calves are still running around and nursing their mothers is ideal, says Strickland, but boosters are equally important. They are so important, in fact, that Strickland makes his UT veterinary students raise their hands and swear they will always read vaccine labels before they give any kind of vaccine or medication. Giving boosters at the right time, he says, helps calves develop a strong immune system come weaning time.

Takeaways

At the end of the day, when considering new females or purchasing a new bull, disease and illness concerns are the same across the board. Sitting down with your veterinarian, creating a vaccination plan and making the professionals your operation relies on for expertise aware of specific challenges is the foundation for a healthy herd.

Having a great relationship with your veterinarian is important for a few reasons, but particularly because your veterinarian will be more informed on the ins and outs of your operation if a crisis ever were to arise and will have the ability to make calls on whether recently regulated medications are an option.

"Moving into any scenario, an action plan, herd health protocol plan or biosecurity plan of some sort is necessary. Sit down and work it out," says Strickland. "I always recommend producers work with their veterinarian to see what would be recommended for each individual producer. While I don't know everybody's farm, if you have a relationship with your local veterinarian, they will know yours." **ABB**

Editor's note: Lew Strickland is an Extension veterinarian and associate professor of animal science at the University of Tennessee.



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