



PHOTO BY REGAN RAUB

# Vaccination with Parasite Control Is a Must for a Healthy Herd

*LSU Extension veterinarian says parasite control and nutrition should be priorities.*

Even if producers do everything else by the book for vaccination, if they don't control parasites and monitor nutrition, they may be throwing that investment away.

"I get a lot of herd health calls from producers asking what to vaccinate for," says Christine Navarre, Louisiana State University (LSU) Extension veterinarian. "I won't even talk about vaccination until we've addressed parasite control and nutrition. Without managing those two issues, they may not get all they can out of a vaccination program."

Navarre is not alone in her concern. Parasites are listed by the University of California-Davis School of Veterinary Medicine as one of the common causes of vaccine failure.

"Studies have shown that parasite loads can reduce an animal's ability to produce a strong humoral and cell-mediated immune response to antigens, such as vaccines," says Frank Hurtig, Merial Veterinary Services director. "A healthy immune response is necessary for vaccines to be effective. Parasites can hinder that process."

Some of this reduced immune function may be attributed to parasites causing increased stress and malnutrition.

"Cattle need to be in good condition to get the best possible response to vaccination," Navarre says. "Parasites disrupt stomach function, making it more difficult for cattle to absorb nutrients, which acts like poor nutrition.



That means cattle may not have the nutrients available to mount an immune response to vaccination."

Fall vaccination and preconditioning programs are designed to help calves prepare for the challenges of weaning and shipping.

Hurtig says it is essential that producers also control parasites with a product they can trust, such as an Ivomec® (ivermectin) brand product, as part of their fall protocols to help calves mount a proper immune response to vaccines.

"Producers should follow a preconditioning program like the veterinarian-certified Merial® Surehealth® Calf Preconditioning Program that includes controlling parasites with an Ivomec brand product," Hurtig says. "Parasite control and vaccines both help give calves a strong start in a feeder or heifer development program. And since Ivomec brand products are backed by a 100% product satisfaction guarantee from Merial, producers' parasite control investment is protected as well."

Just as feeder calves need to be treated for parasites, Hurtig says producers also need to include parasite control as part of fall cow and replacement heifer health protocols.

"Fall cow vaccinations serve double duty, protecting the cow and providing immunity to the calf at birth via colostrum," Hurtig says. "These vaccines can head off a lot of trouble and expense for producers but should be used in conjunction with parasite control to help clear the

path for maximum effectiveness."

He says a fall parasite control treatment not only will help ensure that the vaccination program is as successful as possible but will help reduce pasture parasite loads and clear cattle of parasites before winter.

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— Christine Navarre

To achieve these benefits, Navarre says timing is key. She encourages producers to rethink what herd health practice determines when they work cattle.

"The timing of parasite control is so important that I try to time vaccinations to when parasite control is necessary, not the other way around," Navarre says. "I want to know that timing for parasite control is right because it is more critical than timing for vaccination in many herds."

When producers are choosing a parasite control product this fall, Hurtig notes that they should consult with a veterinarian for the optimal parasite control practices in their areas, read labels carefully and choose a product that will control all of the parasites of concern for their individual herds.

It's equally critical, he adds, for producers to protect their parasite control investment by using a product that is backed by a trusted manufacturer.

## Boost cattle profitability

Herd health costs account for a relatively small percentage of a cow-calf producer's expenditures, but they can have a big effect on boosting productivity and securing profits. This is an important insight that most profitable cow-calf producers already know, according to Cattle-Fax's annual cow-calf producer survey.

"Year in and year out, in good markets and in bad, our cow-calf producer survey shows that high-return producers do not skimp on genetics, pasture or herd health," says Kevin Good, Cattle-Fax senior market analyst.

## Five tips

To achieve the most out of their parasite control programs, producers need to choose a product they can trust, and then apply it correctly, Hurtig says. He offers the following tips for producers wanting to get the most out of their parasite control investment:

- 1) Make sure the product is effective against target parasites in the area and will meet the producer's parasite control goals.
  - Carefully read product labels to determine parasites controlled and the duration of the product against target parasites.
  - Not all parasite control products are effective

against liver flukes or provide control of inhibited stages of the brown stomach worm.

- 2) Weigh cattle to determine accurate dosing and achieve more efficient treatment.
  - Using too much or too little product can result in wasted parasite control investment or less-than-ideal control.
- 3) Time parasite control for when it's most effective, not when it's most convenient.
  - Working with a local veterinarian can help producers determine the best time to control parasites in their areas.
- 4) Use parasite control products based on the region and life cycle of the target parasites.
  - Due to the persistent effect of endectocides, treatments can be applied in northern climates between two to three weeks before or after the first hard frost for the best fall and winter control.
  - Where liver flukes are a concern, treatment should occur in early fall before cattle are turned out for winter grazing.
- 5) Use a branded product that is backed by a product satisfaction guarantee.

Of all those practices, Iowa State University data show that parasite control easily tops the list of most economically rewarding cow-calf pharmaceutical practices. Parasite control comes in at almost six times more important to a cow-calf producer's breakeven cost than using growth-promoting implants, which was the second-most important practice. The same research shows that not controlling parasites in the cow herd can negatively affect a producer's breakeven selling price by 34% — equating to a value of \$201 per head.

"Parasites negatively affect cattle performance and, therefore, profits, from a number of different angles," says Hurtig. "Parasites can cause reduced weight gain, conception rates, immune system response and milk production — negatives that can all build on each other and result in significant losses."

He adds that parasites build up on pastures and in cattle throughout the summer grazing months, making fall cattle work — such as preconditioning, weaning or pregnancy checking — ideally timed opportunities to clear both cows and calves of profit-robbing parasites in preparation for winter, Hurtig says.

Lice are usually the top-of-mind pest leading up to the winter months. Hurtig says this focus on lice occurs, in part, because the damage from

them is easily seen, but it is important to remember that lice can cause more than a little hair loss. Studies have shown that feeder calves infected with moderate to heavy lice populations can have a decreased average daily gain of as much as 0.21 lb.

Hurtig says it's also important to treat for internal parasites, such as liver flukes and *Ostertagia* this time of year. Research has shown that through improved growth and production, heifers treated for both nematodes and liver flukes in the fall earned \$153 more per head. In addition, in 8- to 9-month-old calves, research has found that subclinical infections of liver flukes caused an 8% reduction in weight gain over six months. Higher levels of infection reduced weight gain by 29%.

"Controlling both internal and external parasites at fall preconditioning or weaning sets up calves for more efficient weight gain and better overall health as they transition to the feeder or heifer development stage," Hurtig says. "Left unchecked, parasite infections will cause reduced weight gains, inefficient feed conversion and increased incidence of disease — all of which will quickly chip away at profits."

Controlling internal and external parasites also can give cows a much-needed boost as forage quality declines and they are struggling nutritionally.

"This falloff in forage quality makes it important that cattle get the most benefit possible out of the feed that is available. Parasite loads make that even more challenging," Hurtig says. "Parasites decrease appetite, have a negative effect on nutrient utilization and hamper immune response. Clearing cows of parasites before winter means that expensive supplemental feed is going to benefit your herd, not feed parasites."

Hurtig advises all producers to consider what Cattle-Fax says high-return producers already know and practice: sound herd health, which includes parasite control, pays big dividends — even in hard times.

"Even though it may be tempting, sound parasite control should be the last place producers cut," he says. "Instead, they need to work with their veterinarian to develop a plan for this fall and again next spring to help cattle fight the damaging effects of parasites throughout the year." **HW**

**Editor's Note:** This article was provided by Merial.