

## Tough diagnosis calls for easy prevention

**Phil Hanson, DVM**  
**Animal Health Care**  
**Durand, Wis.**



“

It makes sense to have reproductive and respiratory protection together in one combination product.”

Because there are no easy and inexpensive tests for diagnosing *Lepto hardjo-bovis*, Phil Hanson, DVM, covers the bases from the start.

“I can’t argue with research that says that *L. hardjo-bovis* is present in dairies and that it’s the most common type of lepto,” says Hanson, who has been practicing for more than 20 years and owns Animal Health Care in Durand, Wis.

He has been using Vira Shield® 6+L5 HB since it first came on the market and has incorporated the vaccine into all of his clients’ herd health programs as a prevention measure.

“It makes sense to have reproductive and respiratory protection together in one combination product,” says Hanson. “It’s better to give as few shots as possible.”

Based on his recommendations, Hanson’s clients vaccinate at dry-off.

“By vaccinating at dry-off, you are getting the cows’ antibodies pumped up before they calve. You are providing the calf with the best antibody levels possible,” he says.

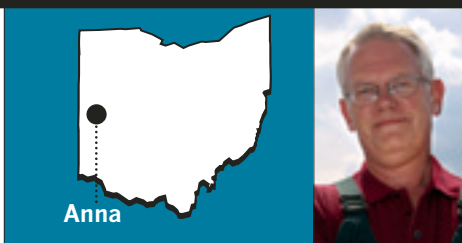
While vaccinating at dry-off is important, Hanson also stresses the need to vaccinate heifer calves at an early age – four or five months of age is ideal. He says that passive immunity runs out by then and it’s appropriate to booster the calf’s immunity.

“It’s also important to vaccinate early because cattle are the maintenance hosts for *L. hardjo-bovis* so they are carrier animals,” he says. “Vaccinating helps prevent infection and any shedding that may occur.”



## Sneaky disease makes simple vaccination necessary

**Ken Gloyeske, DVM**  
**Tri-County Veterinary Service**  
**Anna, Ohio**



Most of my clients are on a vaccination regimen that includes *L. hardjo-bovis* because it's a sneaky disease and without you knowing it, a herd can end up with decreased reproductive rates in an insidious fashion."

*"An ounce of prevention is worth a pound of cure."*  
– Benjamin Franklin

Ken Gloyeske, DVM, lives by this mantra every day, especially when it comes to incorporating *L. hardjo-bovis* protection in his clients' dairy herds.

"Every pregnancy counts and the cost of vaccine is minimal if you can protect them from disease," says Gloyeske, who works with four other veterinarians at Tri-County Veterinary Service in Anna, Ohio.

Gloyeske thinks that *L. hardjo-bovis* is common in his area, even though it's tough to diagnose. His proof comes from how many times he has seen early embryonic deaths. His initial check shows the animal pregnant, but when he comes back later to recheck, the cow is found open.

"Most of my clients are on a vaccination regimen that includes *L. hardjo-bovis* because it's a sneaky disease and without you knowing it, a herd can end up with decreased reproductive rates in an insidious fashion," he says. "You may start seeing less pregnant cows in total, but you really don't see clinical signs. You also start having an increase in cows called pregnant, but then they reabsorb the fetus later."

Because it's his job to make vaccine recommendations, Gloyeske feels he would be wasting his clients' time and money if he didn't include all known leptospires, including *L. hardjo-bovis*, in their vaccination programs.

"I use Vira Shield 6+L5 HB because it's simple – it's got all the reproductive and respiratory protection you need in one shot," he says. "It includes Type 2 BVD and works well in dry cows and heifers. Plus, it's convenient for busy people."



## Emerging disease worth vaccinating against

Todd Wells, DVM

West End Veterinary Clinic

Buhl, Idaho



My clients like the convenience it offers. Plus, the *L. hardjo-ovis* isolate included in Vira Shield 6+L5 HB comes from a U.S. herd vs. an isolate from another country.”

For Todd Wells, DVM, the most common reproductive problems he sees on his clients’ dairies are related to increased production standards. Getting cows bred back as soon as possible is difficult because producers are constantly asking more out of their cows than ever before. But Wells does see an emerging disease that’s easy to ignore because signs may not be obvious – *L. hardjo-ovis*.

“*L. hardjo-ovis* is more widespread than we are giving it credit for,” says Wells, who works with four other veterinarians at West End Veterinary Clinic in Buhl, Idaho. Their clients range in size from small family farms with 100 head to dairies with multiple sites that have 2,500 head.

For example, in a herd that was expanding, he noticed that cows were coming up open, but there were no obvious signs of abortions. They came into heat even though he had diagnosed them pregnant two weeks before. He tested suspect animals and out of 12 tested, 11 came back positive for *L. hardjo-ovis*.

Controlling this pathogen requires a combination of biosecurity, antibiotics, vaccination and culling. The first step is to eliminate carriers by treating per label with a long-acting antibiotic, or culling. Antibiotic use is only for treating cattle that are in carrier state.<sup>1</sup> This should be combined with a vaccine program to reduce the incidence of new infections.

Wells now uses Vira Shield 6+L5 HB in more than 6,000 animals. He had reservations about switching over from a modified-live to an inactivated vaccine, but after researching Vira Shield 6+L5 HB and giving it a chance, he no longer worries.

“It works well as a combination product to cover reproductive and respiratory diseases,” he says. “My clients like the convenience it offers. Plus, the *L. hardjo-ovis* isolate included in Vira Shield 6+L5 HB comes from a U.S. herd vs. an isolate from another country.”



## Discover 12 reasons why Vira Shield makes sense for your cattle



The first and only inactivated viral vaccine available in combination with *L. hardjo-bovis*, Vira Shield 6+L5 HB conveniently protects herds against reproductive and respiratory diseases.

According to research, *L. hardjo-bovis* is the most common cause of bovine leptospirosis in the United States, plus *hardjo-bovis* is the only hardjo found in the United States.<sup>2</sup> Yet, most lepto vaccines don't contain an isolate of *L. hardjo-bovis*.

The *L. hardjo-bovis* isolate found in Vira Shield 6+L5 HB:

- Originates from a U.S. herd that was experiencing reproductive problems
- Is geographically distinct from Spirovac®, which contains an isolate from Australia<sup>3</sup>

In head-to-head serology studies, Vira Shield 6+L5 HB demonstrated four times the titer response of Spirovac L5 (See Figure 1).<sup>4</sup>

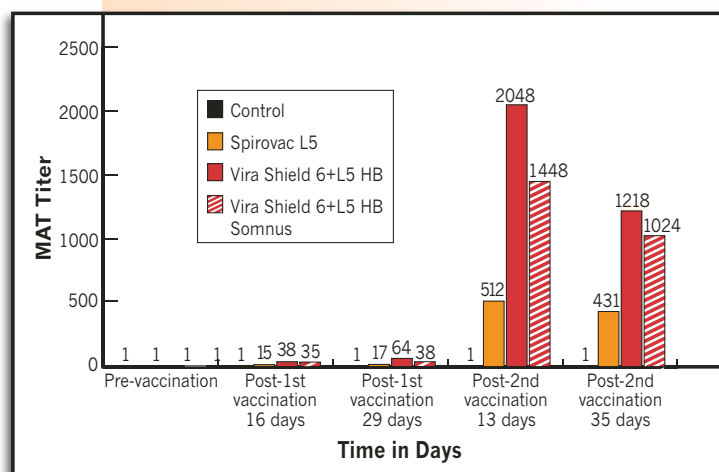
Vira Shield 6+L5 HB is:

- The only vaccine containing three BVD isolates – noncytopathic (NCP) Type 1, NCP Type 2 and cytopathic (CP) Type 1
- In combination with *L. hardjo-bovis* – the only hardjo of importance in the United States and the one that reduces conception rates
- Backed by independent research demonstrating an 11-month duration of immunity for Type 2 BVD<sup>5</sup>
- One convenient shot contains up to 12 disease-fighting components



**Figure 1.**  
Serological comparison of New Vira Shield 6+L5 HB and Spirovac L5

For this trial, 28 Holsteins were randomly assigned to one of four test groups. Each vaccination group had eight animals and the control group had four animals. Animals were vaccinated according to label directions. Serum samples were titered for *L. hardjo-bovis* antibodies by microscopic agglutination. Group titers are a geometric mean of individual titers per test day and group.



1. Van Saun R. Leptospirosis in cattle. The Pennsylvania State University, Veterinary Science Extension. *Veterinary News*, January 2005.  
 2. Zuerner RL, et al. Repetitive sequence element cloned from *Leptospira interrogans* serovar hardjo type hardjo-bovis provides a sensitive diagnostic probe for bovine leptospirosis. *J Clin Microbiol.* 1988;26:2495-2500.  
 3. Novartis makes no claims concerning the superiority of the U.S. isolate in Vira Shield to the Australian isolate in Spirovac.  
 4. Data on file, Novartis Animal Health US, Inc.  
 5. Chase C. Protection with an inactivated vaccine against IBR, BRSV and BVDV. Paper presented at: Annual Meeting of the American Association of Bovine Practitioners. 1995; San Antonio, Texas. Vira Shield has no approved claim for the duration of immunity to Type 2 BVD.

Ask your veterinarian about Vira Shield 6+L5 HB today.  
Or visit [www.livestock.novartis.com](http://www.livestock.novartis.com).