

## Vaccination reduces needless death loss to hemorrhagic bowel syndrome

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Dr. Richard Geary saw his first case of hemorrhagic bowel syndrome (HBS) in the late 1990s. “Since that time, prevalence has increased. I’ve found it in every herd where I’ve conducted a postmortem and ran bacteriology tests,” says Geary, who owns Countryside Veterinary Clinic.

Whenever a client has a cow suddenly die with symptoms associated with HBS, Geary encourages a postmortem. “Unlike some diseases, you can take steps to prevent HBS,” he says. “If you don’t know what’s causing the problem, you can’t do anything about it.

“When I find a case of HBS, my first recommendation is to start a vaccination program. I recommend giving an initial dose of Clostridium Perfringens Type A Toxoid and follow in three weeks with a booster dose. Two weeks after the initial dose, there’s already a difference. Three weeks after the booster dose, problems really diminish.”

Geary encourages dairymen to get heifers vaccinated as calves. “They need to build up immunity to *C. perfringens* Type A before they enter the milking herd,” he explains.

Besides vaccinating with Clostridium Perfringens Type A Toxoid, Geary recommends keeping cows in a clean, dry environment. “HBS is most prevalent in cool, wet weather. Cattle don’t eat well during low-pressure weather systems. When they finally do eat, they are so hungry that they gorge themselves. This creates an ideal environment for bacterial overgrowth of abnormal gut bacteria such as *C. perfringens* Type A. Husbandry practices that keep cows clean, dry and comfortable so they continue eating will help.”



“Vaccination with Clostridium Perfringens Type A Toxoid makes a significant difference in preventing *C. perfringens* Type A.”



“I’ve had herds with a high incidence of HBS. After receiving Clostridium Perfringens Type A Toxoid and a booster dose three weeks later, problems quickly diminish.”



# Add Clostridium Perfringens Type A Toxoid to your vaccination protocols

*C. perfringens* Type A is a strain of bacteria that can rapidly produce harmful amounts of toxins if an intestinal disruption occurs. This, in turn, can lead to serious and often deadly gastrointestinal disease.

Research has shown that *C. perfringens* Type A is associated with:

- Hemorrhagic bowel syndrome (HBS) in mature cows – HBS has an estimated fatality rate of 85 percent or higher within the first 24 to 36 hours.
- Abomasal ulcers, hemorrhage and tympany in calves – Calves show signs of quick onset of abdominal distention with pain, bloat, depression, feed refusal and sudden death.

Because treatment is rarely successful, prevention is key. However, standard seven-way clostridial vaccines do not cross-protect against *C. perfringens* Type A.

## How Clostridium Perfringens Type A Toxoid can help

**Clostridium Perfringens Type A Toxoid** is conditionally licensed for use in cattle. The USDA granted this license after reviewing data that provided a reasonable expectation of aiding in the control of disease syndromes caused by the alpha toxin of *C. perfringens*.

The vaccine is a purified alpha toxoid built via a specialized manufacturing process that maintains a high level of immunogenicity of the toxoid in the finished product. Thus, unlike standard seven-ways, it stimulates a highly specific, neutralizing response against the alpha toxin of *C. perfringens*.

## Clostridium Perfringens Type A Toxoid is:

- Shown in Colorado State University research to increase anti-alpha toxin antibody in cows, as well as increase levels in their colostrum-fed calves.<sup>1</sup>
- The result of 10 years of Novartis research combined with experience building custom vaccines containing *C. perfringens* Type A.
- Produced under specialized production methods that provide high levels of alpha toxoid antigen.
- Shown to have minimal effect on milk production.<sup>2</sup>



## Clostridium Perfringens Type A Toxoid

<sup>1</sup> Van Metre D. Passive transfer of neutralizing antibodies to *Clostridium perfringens* Type A alpha toxin in dairy calves fed colostrum from immunized dams. Paper presented at Annual Meeting of American Association of Bovine Practitioners 2006; Saint Paul, Minnesota.  
<sup>2</sup> Data on file, Novartis Animal Health US, Inc.