

With the right vaccines, you can rest easy.

Why suffer through restless nights when you can be confident in the health of your herd? The right vaccines and the right vaccine program can help protect against disease and maintain herd immunity.

As your veterinarian, I want to help you to select vaccines that will help provide the best protection for your cattle.

Important factors to consider when selecting a vaccine:

- 1 Level of protection
- 2 Duration of immunity
- 3 Immune response time
- 4 Modified-live virus or killed virus vaccines
- 5 Safe for pregnant cows and calves nursing pregnant cows
- 6 Convenience

Let's talk today to select vaccines
that are right for your herd.

INFORCE™ 3
Respiratory Vaccine

Bovi-Shield GOLD

ScourGuard 4KC

CattleMaster GOLD

Are you losing sleep over the health of your herd?



¹Wollums AR, et al. Rapid onset of protection following vaccination of calves with multivalent vaccines containing modified-live or modified-live and killed BHV-1 is associated with virus-specific interferon gamma protection. *Vaccine* 2003;21:1158-1164.

²Ficken MD, Ellsworth MA, et al. Evaluation of the Efficacy of a Modified-Live Combination Vaccine against Abortion Caused by Virulent Bovine Herpesvirus Type 1 in a One-Year Duration-of-Immunity Study. *Veterinary Therapeutics* 2006;3:275-282.

³Rodning SP, et al. Comparison of three commercial vaccines for preventing persistent infection with bovine viral diarrhea virus. *Theriogenology* 2010;77(8):1154-1163.

⁴Cortese VS. Clinical and Immunologic Responses of Cattle to Vaccinal and Natural Bovine Viral Diarrhea Virus (BVDV), Western College of Veterinary Medicine, University of Saskatchewan. 1998. Available at: www.bvdinfo.org. Accessed April 8, 2011.

What should you consider when choosing a vaccine?

To determine which vaccines are best for your operation, let's consider the following questions together.

1 What level of protection do I need?

Vaccine labels provide information on the levels of protection demonstrated and licensed for each disease organism.

The five U.S. Department of Agriculture label claims, starting with the highest level of protection, are: **prevention of infection, prevention of disease, aids in disease prevention, aids in disease control and other claims.**

3 Do I need a vaccine with a fast immune response time?

It takes time for the vaccine to stimulate an immune response within the animal. Some types of vaccines can stimulate a faster immune response than others:

- Intranasal vaccines can trigger a rapid innate immune response
- Some modified-live virus (MLV) vaccines can also provide a quick immune response¹

5 Is the vaccine safe for pregnant cows and calves nursing pregnant cows?

Not all vaccines are licensed for use in pregnant cows and calves nursing pregnant cows. It is very important that you read and follow the vaccine's label instructions regarding vaccination of pregnant cows and calves nursing pregnant cows. Please let me know if you have any questions.

2 What duration of immunity do I need?

The duration of immunity (DOI) is the minimum duration of time you can expect the vaccine to help protect your cattle. DOI can vary by the components in the vaccine, and many vaccines do not have DOI on the label. You should select vaccines you know will provide protection when your cattle are most at risk of disease. In general, you want to select vaccines with longer demonstrated protection.

4 Modified-live virus (MLV) or killed virus vaccines?

MLV vaccines contain live organisms that have been altered, so they can stimulate a strong immune response without causing clinical disease. Some MLV vaccines can have benefits including rapid immune response,¹ comprehensive immune response and duration of immunity,^{2,4} and few post-vaccination reactions.⁴ In addition, unlike many killed viral vaccines, most MLV vaccines are effective with a single dose.

6 Is the vaccine available in the combinations I need?

The vaccine combinations you choose should be tailored to your operation. As your veterinarian, I can help determine the disease challenges for your herd and help you select vaccines that offer protection, as well as convenience. When using combination vaccines, remember there may be different duration of immunity and protection claims for each component of the vaccine. Please read the label.