

Vaccines

Check with Your Veterinarian

It is imperative for cattle and dairy producers to work closely with their herd veterinarian to both develop the initial vaccination program and make alterations as needs and circumstances change.

In addition, a veterinarian can provide valuable insight and advice concerning other aspects of herd management by carefully observing the animals at regular intervals and conferring with the producer. A good partnership with a bovine veterinarian can pay big dividends over the long-term.



BE SURE IT'S RIGHT FOR YOU.

Beyond Vaccinating

Vaccination Side Effects

Modern vaccines have proven to be both effective and safe. However, occasionally an animal will experience mild side effects. Reactions noted may include low fever, soreness and/or swelling at injection site, or unusual lethargy. These should disappear in a few hours or a day or two.

Rarely, more serious reactions may occur. If the animal appears unusually weak, develops severe diarrhea, has difficulty breathing, and/or there is extreme swelling at the injection site, a veterinarian should be called immediately.

Other Health Considerations

Keep in mind that food and food-producing animals are strongly influenced by what they eat. Good nutrition is a top priority, as is plenty of clean water, comfortable living conditions, and appropriate veterinary care. Regular deworming and other responsible management practices are vital to operating a successful cattle business.

Cattle should be checked at least once each day in confinement operations and as often as possible in pasture environments. Individuals should appear bright and healthy, move soundly, and have no abnormal discharge from the nose, eyes or mouth. Appetites should be strong, with plenty of good feedstuffs available.

Following good, basic cattle management plans—and including the right vaccination program—will help ensure a healthy herd and many years of profitability.

For More Information

For more information about beef and dairy cattle diseases, or vaccinations, please visit: www.the-best-defense.com

Copyright© 2019 Intervet Inc., a subsidiary of Merck & Co., Inc. All rights reserved. Intervet Inc. (d/b/a Merck Animal Health) RET-4037-After Market Cattle Brochure US/MUL/0419/0020b



Get Vaccinating Right



Cattle



The Science of Healthier Animals



The Importance of Vaccines

Diseases can threaten even the best beef and dairy operations. The right vaccination program will control and/or prevent many of these diseases, and is vital to achieve optimal reproductive and growth rates in cattle, as well as to maintain overall herd health.

When vaccinations are incorporated as part of a management plan that includes good nutrition, effective sanitation, the appropriate environment and other practices, the results include a better quality product and higher profits.

The Right Vaccination Program

Although no vaccine is 100 percent effective all the time, most raise the general herd immunity level and minimize the threat of the spread of infectious diseases.

Individual herd circumstances may affect vaccination program choices. Those that might need to be considered include:

- Regional variations
- Disease history
- Housing
- Feeding practices
- Management practices
- Age
- Timing
- Cost vs. benefits
- Breeding/Pregnancy Status
- Type of vaccine and more

Types of Vaccines

Bovine vaccines include two main types: modified-live products and killed products. It is important to know the difference, as it affects storage and handling. Vaccine types are usually clearly marked on the label.

Modified-live vaccines are light, heat and disinfectant sensitive. Keep them cool and away from sunlight. Syringes and needles must be boiled, not chemically disinfected.

Killed vaccines are less sensitive, but should still be kept cool and protected from sunlight. Needles and syringes can, however, be chemically disinfected.

Know the Diseases

Viral and Bacterial The most common diseases affecting cattle fall into two main categories viral and bacterial. For many diseases treatment is not an option and the best defense against them are vaccines. An effective vaccination program gives you the power to get in front of disease before it strikes, tackling it before it gains ground. Instead of treating disease, you can keep producing healthy, profitable cattle.

Viral Diseases **BRSV** – *Bovine Respiratory Syncytial Virus* Causes pneumonia and nasal discharge. Bacterial pneumonia often develops secondarily. Primarily affects cattle less than 2 years old.

BVD – *Bovine Viral Diarrhea* Types 1 & 2 – As the most costly viral disease in cattle, BVD causes digestive tract erosions, abortions, infertility, birth defects and respiratory disease. Immune system suppression leaves animals open to other infections. A fetus infected in utero prior to 140 days gestation may become a persistently infected (PI) calf and shed the virus to other animals for life. Those infected after 140 days gestation may have impaired immune function and be more prone to serious infections within the first year of life. Testing for BVD-PI calves and removing them from the group as soon as possible may be beneficial.

IBR – *Infectious Bovine Rhinotracheitis (Rednose)* Virus causes upper respiratory disease, eye lesions, abortions and infertility. IBR is extremely contagious and outbreaks can be severe.

PI₃ – *Parainfluenza Type 3* Virus causes mild respiratory disease that may lead to other respiratory infections, both viral and bacterial.

Rotavirus and Coronavirus Leading viral causes of calf scours (diarrhea) in young calves. May weaken the individual and slow growth, and may cause death in highly-compromised individuals. As many other scour causing pathogens can also be lethal to the calf and are difficult to treat, a broad spectrum vaccine administered to the cow at the proper time is the best defense. Passive immunity is transferred to the calf from the cow with first milk (colostrum).

Bacterial Diseases **Brucellosis** A reproductive system bacterial disease nearly eradicated in the United States. May cause late-term abortions, weak calves or retained afterbirth. May be spread to other species, including humans—although with different symptoms.

Haemophilus somnus (*Histophilus somni*) – *Haemophilus somnus (Histophilus somni)* Bacterium can cause pneumonia, neurological disease, and abortions. Can be primary cause of pneumonia or a secondary bacterial invader.

Leptospirosis This bacterium causes milk drop, abortions, and infertility in breeding cattle. May also cause urinary disease and anemia in all cattle groups. Five different types of “lepto” can cause disease. Most vaccines contain all five. Take note, however, that the “Hardjo bovis” type—which lives in the urinary and reproductive tracts of infected “reservoir” host cows—is a major cause of infertility.

Pasteurella (*Pasteurella multocida* and *Mannheimia haemolytica*) A group of bacteria commonly found in the environment and animal itself that compound respiratory diseases caused by viruses or other bacteria. Keeping animals healthy overall is the best protection. Use of a broad spectrum vaccine can prevent lung damage caused by Pasteurella.

Pinkeye – (caused by *Moraxella bovis*) Bacterium causes corneal ulcers with temporary blindness and/or permanent damage to the eye’s cornea. It is spread by flies feeding on the infected eye drainage.

Vibriosis This bacterium is a venereal disease spread by bulls during natural service. *Vibrio* infection can cause early embryonic death and repeat breeders.

Clostridial Diseases Clostridial diseases are caused by bacteria. These diseases generally are divided into three groups: hepatic group, intestinal group, and muscle group. Most commercial vaccines contain protection against seven of the most common disease-causing clostridial organisms.

Hepatic Group – *Cl. novyi (Black Disease)*, and *Cl. haemolyticum (Redwater)* Black Disease causes liver necrosis and blood vessel damage, and produces a toxin that causes rapid death. Redwater causes tissue death in the liver, red-colored urine, and death.

Intestinal Group – *Cl. perfringens Types C & D (Enterotoxemia)* Sometimes called “purple gut” because of lesions found during necropsy, this produces toxins that cause illness and death with little or no outward clinical signs. Note: an emerging problem is “Hemorrhagic Bowel Syndrome” in which “*Cl. perfringens*” Type A is implicated. This is not currently covered by the multivalent Clostridium vaccines.

Muscle Group – *Cl. chauvoei (Blackleg)*, *Cl. septicum (Malignant Edema)*, and *Cl. sordellii (Sord)* These organisms produce toxins that cause muscle and/or heart lesions leading to death.



Know the Antigens

Viral Vaccines**	IBR	BVD Type 1	BVD Type 2	PI ₃	BRSV	Mannheimia Haemolytica	Pasteurella multocida	Leptospirosis	Vibriosis
Vista® Once SQ	●	●	●	●	●	●	●		
Once® PMH IN						●	●		
Vista® 5 SQ	●	●	●	●	●				
Vista® 5 VL5 SQ	●	●	●	●	●			●	●

Clostridial Vaccines	Blackleg	Malignant Edema	Sord	Black Disease	Enterotoxemia	Redwater	Tetanus	Somnus
Vision® 7 (with Somnus*)	●	●	●	●	●	●		●*
Vision® 8 (with Somnus*)	●	●	●	●	●	●		●*
Cavalry® 9	●	●	●	●	●	●	●	
Covexin® 8	●	●	●	●	●	●	●	
Vision® CD-T					●			●

*(with optional Somnus available in Vision® 7 Somnus or Vision® 8 Somnus)

Pinkeye Vaccines	Moraxella bovis	Blackleg	Malignant Edema	Sord	Black Disease	Enterotoxemia
20/20 Vision® 7	●	●	●	●	●	●
Piliguard® Pinkeye-1 Trivalent	●					

Scours	Rotavirus	E. coli K99	Enterotoxemia	Coronavirus
Guardian®	●	●	●	●

**Modified Live Vaccines: All Vista vaccines are labeled as being safe for use in pregnant heifers and cows or calves nursing pregnant cows provided the cows and heifers in the herd are vaccinated prior to breeding, within the previous 12 months, with any of the modified live IBR and BVD containing vaccine(s) in this product line. Read product label carefully. If cows have not previously been vaccinated with modified-live vaccines consult your veterinarian before use.

Know the Vaccines

Viral Vaccines
Vista® Once SQ 50 Dose and 10 Dose
Aids in Prevention of: IBR, BVD Type 2, and BRSV
Aids in Control of disease caused by: BVD Type 1, Parainfluenza₃, Mannheimia haemolytica, and Pasteurella multocida

Once® PMH IN 50 Dose and 10 Dose
Aids in Prevention of disease caused by: Pasteurella multocida
Aids in Control of disease caused by: Mannheimia haemolytica

Vista® 5 SQ 50 Dose and 10 Dose
Aids in Prevention of: IBR, BVD Type 2, and BRSV
Aids in Control of: BVD Type 1, Parainfluenza₃

Vista® 5 VL5 SQ 50 Dose and 10 Dose
Aids in Prevention of: IBR, BVD Type 2, BRSV, and Leptospirosis
Aids in Control of disease caused by: BVD Type 1, Parainfluenza₃
Aids in Preventing urinary shedding of: L. hardjo organism
Aids in Reducing infertility caused by: Campylobacter fetus

Clostridial Vaccines
Vision® 7 (with Somnus*) 250 Dose, 50 Dose and 10 Dose
Aids in Prevention of: Blackleg, Malignant Edema, Sord, Black Disease, Enterotoxemia (and Haemophilus somnus*)

Vision® 8 (with Somnus*) 50 Dose and 10 Dose
Aids in Prevention of: Blackleg, Malignant Edema, Sord, Black Disease, Enterotoxemia, and Red Water (and Haemophilus somnus*)

Cavalry® 9 125 Dose, 50 Dose and 10 Dose
Aids in Prevention of: Blackleg, Malignant Edema, Sord, Black Disease, Enterotoxemia, Red Water and Tetanus

Covexin® 8 50 Dose and 10 Dose
Aids in Prevention of: Blackleg, Malignant Edema, Sord, Black Disease, Enterotoxemia, Red Water and Tetanus

Vision® CD-T 50 Dose
Aids in Prevention of: Enterotoxemia and Tetanus

Pinkeye Vaccines
20/20 Vision® 7 50 Dose and 10 Dose
Aids in Prevention of: Blackleg, Malignant Edema, Sord, Black Disease, Enterotoxemia and Pinkeye caused by Moraxella bovis

Piliguard® Pinkeye-1 Trivalent 50 Dose and 10 Dose
Aids in Prevention of: Pinkeye caused by Moraxella bovis

Scours
Guardian® 50 Dose and 10 Dose
Aids in Prevention of: Rotavirus, E. coli K99, and Enterotoxemia
Aids in Control of: Coronavirus