

# 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](http://www.the-best-defense.com)

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# 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, decrease severity of clinical disease, 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 UV light, heat and disinfectant sensitive. Keep them cool and away from sunlight. Follow BQA guidelines for proper needle use and disposal.

Killed vaccines are less sensitive, but should still be kept cool and protected from sunlight. Follow BQA guidelines for proper needle use and disposal.

# 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 120-140 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 is 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.

**PI<sub>3</sub>** – *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.

**Histophilus somni** (*Haemophilus somnus*) – *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.

**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 and *Mannheimia*.

**Pinkeye** (caused by *Moraxella bovis* and *Moraxella bovoculi*) – 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.

**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 <sub>3</sub>	BRSV	Mannheimia Haemolytica	Pasteurella multocida	Leptospirosis	Vibriosis
VISTA® ONCE SQ	●	●	●	●	●	●	●		
ONCE® PMH IN						●	●		
VISTA® 5 SQ	●	●	●	●	●				
VISTA® 5 VL5 SQ	●	●	●	●	●			●	●
BOVILIS® NASALGEN® 3	●			●	●				
BOVILIS® NASALGEN® 3-PMH	●			●	●	●	●		
BOVILIS® VISTA® BVD CFP		●	●						
Clostridial Vaccines	Blackleg	Malignant Edema	Sordellii	Black Disease	Enterotoxemia	Redwater	Tetanus	Somni	
VISION® 7*	●	●	●	●	●	●	●	●*	
VISION® 8*	●	●	●	●	●	●	●	●*	
CAVALRY® 9	●	●	●	●	●	●	●	●	
COVEXIN® 8	●	●		●	●	●	●	●	
VISION® CD-T					●		●		
VISION® CD					●				
*(with optional Somni available in VISION® 7 SOMNUS or VISION® 8 SOMNUS)									
Pinkeye Vaccines	Moraxella bovis	Moraxella bovoculi	Blackleg	Malignant Edema	Sordellii	Black Disease	Enterotoxemia		
20/20 VISION® 7	●		●	●	●	●	●		
PILIGUARD® Pinkeye-1 TRIVALENT	●								
PILIGUARD® Pinkeye+7	●		●	●	●	●	●		
MORAXELLA BOVOCULI		●							
Scours	Rotavirus	E. coli K99	Enterotoxemia	Coronavirus					
GUARDIAN®	●	●	●	●					
BOVILIS® CORONAVIRUS				●					
*GUARDIAN is the only scours vaccine on the market with two inactivated coronaviruses									

\*\*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		
<b>Cattle 5-way viral + Mannheimia and Pasteurella combo</b>	IBR, BVD Type 2, and BRSV, BVD Type 1, Parainfluenza-3, Mannheimia haemolytica, and Pasteurella multocida	VISTA® ONCE SQ 50 Dose and 10 Dose
<b>Intranasal Pasteurella and Mannheimia vaccine</b>	Pasteurella multocida and Mannheimia haemolytica	ONCE® PMH IN 50 Dose and 10 Dose
<b>Cattle 5-way Viral</b>	IBR, BVD Type 2 and BRSV, BVD Type 1 and Parainfluenza-3	VISTA® 5 SQ 50 Dose and 10 Dose
<b>Cattle 5-way Viral Lepto + Vibrio</b>	IBR, BVD Type 2, BRSV, and Leptospirosis, BVD Type 1 and Parainfluenza-3, L. hardjo organism, and Campylobacter fetus	VISTA® 5 VL5 SQ 50 Dose and 10 Dose
<b>Intranasal Cattle 3-way viral vaccine</b>	Infectious Bovine Rhinotracheitis (IBR) virus, Bovine Respiratory Syncytial Virus (BRSV) and Parainfluenza-3 virus	BOVILIS® NASALGEN® 3 50 Dose, 10 Dose and Single dose
<b>Intranasal Cattle 3-way viral + Mannheimia and Pasteurella combo</b>	Infectious Bovine Rhinotracheitis (IBR) virus, Bovine Respiratory Syncytial Virus (BRSV) and Parainfluenza-3 virus, Pasteurella multocida and Mannheimia haemolytica	BOVILIS® NASALGEN® 3-PMH 50 Dose, 10 Dose and Single dose
<b>Cattle BVD type 1 and 2 viral vaccine</b>	Bovine Viral Diarrhea (BVD) Types 1 & 2.	BOVILIS® VISTA® BVD CFP 50 Dose and 10 Dose
Clostridial Vaccines		
<b>Cattle 7-way Blackleg (+ Somni)*</b>	Blackleg, Malignant Edema, Sordellii, Black Disease, and Enterotoxemia and (Histophilus Somni*)	VISION® 7 250 Dose, 50 Dose and 10 Dose
*(with optional Somni in VISION® 7 SOMNUS)		
<b>Cattle 8-way Blackleg (+ Somni)*</b>	Blackleg, Malignant Edema, Sordellii, Black Disease, Enterotoxemia, Red Water and (Histophilus Somni*)	VISION® 8 50 Dose and 10 Dose
*(with optional Somni in VISION® 8 SOMNUS)		
<b>Cattle 8-way Blackleg + Tetanus</b>	Blackleg, Malignant Edema, Sordellii, Black Disease, Enterotoxemia, Red Water and Tetanus	CAVALRY® 9 125 Dose, 50 Dose and 10 Dose
<b>Cattle and Sheep 8-way Blackleg + Tetanus</b>	Blackleg, Malignant Edema, Black Disease, Enterotoxemia, Red Water and Tetanus	COVEXIN® 8 50 Dose and 10 Dose
<b>Multi Species CD-T</b>	Enterotoxemia and Tetanus	VISION® CD-T 50 Dose
Pinkeye Vaccines		
<b>Cattle 7-way Blackleg + Pinkeye</b>	Blackleg, Malignant Edema, Sordellii, Black Disease, Enterotoxemia, and Pinkeye caused by Moraxella bovis	20/20 VISION® 7 (2 mL) 50 Dose and 10 Dose
<b>Cattle Pinkeye</b>	Pinkeye caused by Moraxella bovis	PILIGUARD® Pinkeye-1 TRIVALENT 50 Dose and 10 Dose
<b>Cattle 7-way Blackleg + Pinkeye</b>	Pinkeye caused by Moraxella bovis, Clostridium chauvoei, C. septicum, C. novyi Type B, C. sordellii and C. perfringens Types C and D.	PILIGUARD® Pinkeye + 7 (5 mL) 50 Dose and 10 Dose
<b>Moraxella Bovoculi</b>	Pinkeye caused by Moraxella bovoculi.	Moraxella Bovoculi 50 Dose and 10 Dose
Scours		
<b>Calf Scours</b> Pre-calving vaccination option	Rotavirus, E. coli K99, Enterotoxemia, Coronavirus	GUARDIAN® 50 Dose and 10 Dose
<b>BOVILIS® Coronavirus Intranasal</b> Post-calving vaccination option	Coronavirus	BOVILIS® CORONAVIRUS 50 Dose and 10 Dose