

Poly Serum®

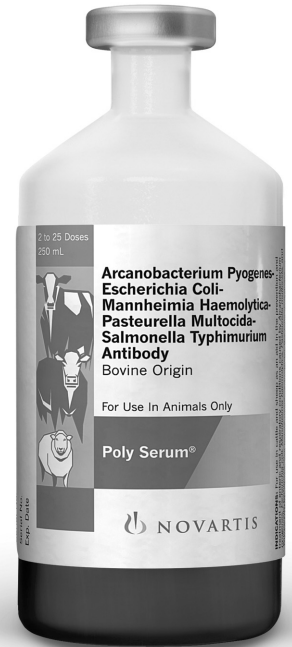
Arcanobacterium Pyogenes-Escherichia Coli-Mannheimia Haemolytica-Pasteurella Multocida-Salmonella Typhimurium Antibody, Bovine Origin

Product Number

Poly Serum®
#214 - 250 mL

For use in cattle and sheep as an aid in the prevention and treatment of enteric and respiratory conditions caused by *Arcanobacterium pyogenes*, *Escherichia coli*, *Mannheimia haemolytica*, *Pasteurella multocida*, and *Salmonella typhimurium*.

- Effective Colostrum Supplement — Poly Serum** contains the protective antibodies required to help prevent or treat enteric and respiratory conditions in neonatal calves, cattle and sheep. **Poly Serum** is a highly effective colostrum supplement where colostrum quality and quantity are questionable. It is especially useful for use in neonatal calves where the colostrum quality and intake are unknown.
- Broad Spectrum — Poly Serum** contains antibodies against five organisms commonly associated with diarrhea and respiratory problems in neonatal calves, cattle and sheep. It fortifies treatment programs when used with antibiotics or other drugs for treatment of diarrhea and pneumonia.
- Reliable Protection —** Unlike a vaccine which requires several days to develop effective levels of immunity, **Poly Serum** delivers specific antibodies immediately with every dose. **Poly Serum** provides effective antibody levels for *Arcanobacterium pyogenes*, *Escherichia coli*, *Mannheimia haemolytica*, *Pasteurella multocida* and *Salmonella typhimurium* to help prevent deadly diseases caused by these bacteria. The option of subcutaneous administration reduces risk of tissue reaction.



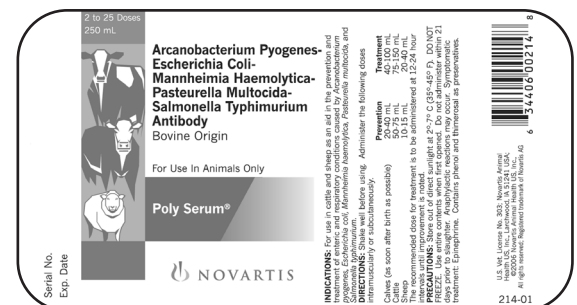
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DIRECTIONS: Shake well before using. Administer the following doses intramuscularly or subcutaneously.

	Prevention	Treatment
Calves (as soon after birth as possible)	20-40 mL	40-100 mL
Cattle	50-75 mL	75-150 mL
Sheep	10-15 mL	20-40 mL

The recommended dose for treatment is to be administered at 12-24 hour intervals until improvement is noted.

PRECAUTIONS: Store out of direct sunlight at 2°-7° C (35°-45° F). DO NOT FREEZE. Use entire contents when first opened. Do not administer within 21 days prior to slaughter. Anaphylactic reactions may occur. Symptomatic treatment: Epinephrine. Contains phenol and thimerosal as preservatives.



Customer Service
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Technical disease information

Infectious enteritis (scours) and pneumonia are the two most common causes of death in calves less than 1 month old. In a 2007 study, conducted about the U.S. dairy industry by NAHMS, calf scours was determined to be the No. 1 killer of unweaned dairy heifer calves (56.5 percent). Meanwhile, respiratory problems led to 22.5 percent of these deaths in unweaned heifer calves.¹

Neonatal Diarrhea (scours or enteritis)

Despite advances in sanitation, vaccinations and antibiotics, scours caused by *Escherichia coli* (colibacillosis) is still a primary killer of newborn calves, both dairy and beef, as well as young lambs.

Preventing scours requires management of the dam, the environment, and the neonate. Immunizing cows with a product like Scour Bos® 9 can be very beneficial, but a heifer or young cow's immune capacity may not be developed enough to provide her calf with adequate protection through colostrum and milk antibodies. Treatment of *E. coli* scours can be costly, time-consuming, and may be too late.

Salmonella typhimurium can be a contributing factor to *E. coli* scours or may cause severe diarrhea by itself. *Salmonella typhimurium* scours are most commonly seen on dairy farms, heifer-rearing operations or veal operations. The disease usually does not occur in calves less than 2 weeks old. However, it has been reported in beef calves on pasture and in calves less than 1 week old. This disease can also progress to a septicemia (blood infection) causing meningitis, arthritis, or pneumonia. Animals that survive *Salmonella* infections are commonly "poor-doers."

Pneumonia

Pneumonia may occur suddenly in young, normal animals and commonly occurs in those stressed by scours. The most commonly isolated bacteria associated with calf pneumonia are *Mannheimia haemolytica*, *Pasteurella multocida* and

Arcanobacterium pyogenes. As with scours, prevention of pneumonia requires management of the dam, the environment, and the offspring. *Mannheimia haemolytica* and *Pasteurella multocida* are the most common bacterial causes of pneumonia in calves, especially when animals are kept in enclosed crowded conditions where ventilation is inadequate and humidity is high. *Arcanobacterium pyogenes* is a secondary invader found in chronic pneumonia cases. Dams may provide inadequate levels of protection against these three bacteria in their colostrum and milk. This leaves the young animal susceptible to these infectious agents. Signs of pneumonia include rapid breathing, a cough, and nasal discharge. Body temperature may be elevated above the normal 101° F to 103° F or higher. Affected animals are frequently depressed and have poor appetites. Once signs appear, treatment may be too late or the animal may suffer permanent damage to its respiratory system.

Poly Serum is the specific antibody supplement for the prevention of scours and pneumonia in calves and sheep.

Poly Serum is recommended for the prevention and treatment of infections caused by *Arcanobacterium pyogenes*, *Escherichia coli*, *Mannheimia haemolytica*, *Pasteurella multocida* and *Salmonella typhimurium*. **Poly Serum** is prepared from the blood of cattle hyperimmunized with *A. pyogenes*, *E. coli*, *M. haemolytica*, *P. multocida* and *S. typhimurium*. Prevention of disease in young calves requires 20-40 mL of antibody injected subcutaneously (SubQ) or intramuscularly (IM) as soon after birth as possible (in several locations, no more than 15 mL per site). Similar diseases in sheep are prevented by injecting 10-15 mL SubQ or IM. Older calves require 50 to 75 mL injected SubQ or IM for disease prevention. Should treatment be required, inject 40 to 100 mL in neonatal calves, 75 to 150 mL in older calves, and 20 to 40 mL in sheep, given along with appropriate antibiotic therapy.

Reference:

1. Part 1: Reference of 2007 Dairy Cattle Health and Management Practices, National Animal Health Monitoring System (NAHMS), October 2007, p. 94.