Clostridium Chauvoei-Septicum-Novyi-Sordellii-Perfringens Types C & D-Mannheimia Haemolytica Bacterin-Toxoid

One Shot Ultra® 7

PRODUCT DESCRIPTION: One Shot Ultra 7 is for vaccination of healthy cattle as an aid in preventing shipping fever caused by Clostridium chauvoei, malignant edema caused by Cl. septicum, black disease caused by Cl. novyi, gas-gangrene caused by Cl. sordellii, enterotoxemia and enteritis caused by Cl. perfringens types B, C, and D, and bovine pneumonia caused by Mannheimia haemolytica type A1. Although Cl. perfringens type B is not a significant problem in North America, immunity is provided by the beta toxin of type C and the epsilon toxin of type D. The freeze-dried component is a preparation of inactivated whole cultures of M. haemolytica propagated to increase the production of leukotoxin and capsular and cell-associated antigens. The liquid component consists of killed, standardized cultures of Cl. chauvoei, Cl. septicum, Cl. novyi, Cl. sordellii, and Cl. perfringens types C and D, with a special, water-soluble adjuvant (Stimulon™) to enhance the immune response.

DISEASE DESCRIPTION: Pneumonia caused by M. haemolytica type A1 has resulted in substantial economic losses in the cattle industry. The disease condition, known as shipping fever, often prevents optimal weight gain in young animals upon arrival. The lesions characteristic of pneumonia caused by M. haemolytica type A1, a normal constituent of the bovine nasopharynx, increases greatly in number when an animal undergoes stress (transport, change in climate, viral infections). This rapid increase in bacterial population adds to the deposition of organisms in the lungs. In the lung, M. haemolytica type A1 may grow rapidly and produce a leukotoxin which incapacitates leukocytes (alveolar macrophages and polymorphonuclear neutrophils). When the bacterium is engulfed by a weakened leukocyte, the leukocyte is unable to destroy the bacterium, allowing the bacterium to produce leukokinesis, which kills the leukocyte. As the leukokinesis dies, it releases enzymes that add to the fibrinoprotein凝固化和 local areas of necrosis characteristic of pneumonia caused by M. haemolytica type A1 (leukokinesis). SAFETY AND EFFICACY: In safety studies involving 955 animals, no untoward reactions were noted following vaccination. Vaccination did result in small, temporary injection site swellings. Efficacy of the M. haemolytica fraction in One Shot Ultra 7 was demonstrated in a challenge-immunity study. Cattle (200-550 lb) vaccinated with 1 dose of One Shot Ultra 8 were subjected to severe experimental challenge at 2 weeks postvaccination with a heterologous strain of M. haemolytica type A1. Four days postchallenge, animals were necropsied and individual lungs were evaluated for lung damage and lesions characteristic of M. haemolytica type A1 infection. Vaccinates demonstrated a statistically significant reduction (32.6%) in lung damage compared to animals receiving a placebo. Seroreactivity of the clostridial fractions was confirmed by serologic studies.

DIRECTIONS: 1. General Directions: Vaccination of healthy cattle is recommended. The product is also recommended for use as an aid in preventing shipping fever caused by Clostridium chauvoei, malignant edema caused by Cl. septicum, and black disease caused by Cl. novyi. Aseptically rehydrate the freeze-dried component (One Shot Ultra 7) with the accompanying vial of diluent (UltraChoice® 7), shake well, and administer 2 mL subcutaneously. The product should be administered subcutaneously (SC) under the skin. 2. Primary Vaccination: Administer a single 2-mL dose to healthy cattle, followed by a second 2-mL dose of UltraChoice 7, 4-8 weeks later.

3. Revaccination: Annual revaccination with a single dose of UltraChoice 7 is recommended. Good management practices support revaccination with One Shot® whenever subsequent stress or exposure is likely. 4. Good animal husbandry and herd health management practices should be employed.

PRECAUTIONS: 1. Store at 2°–7°C. Prolonged exposure to higher temperatures may adversely affect potency. Do not freeze. 2. Use entire contents when first opened. 3. Sterilized syringes and needles should be used to administer this vaccine. 4. Do not vaccinate within 21 days before slaughter. 5. Not for use in sheep. 6. Contains formalin as a preservative. 7. Temporary local swelling at injection site may occur after administration. 8. Field reports and a clinical study indicate that a transient reduction in milk production may occur following vaccination of lactating dairy cattle. 9. As with many vaccines, anaphylaxis may occur after use. Initial antitoxin of epinephrine is recommended and should be followed with appropriate supportive therapy. 10. This product has been shown to be efficacious in healthy animals. A protective immune response may not be elicited if animals are inciting an infectious disease, are malnourished or parasitized, are stressed due to shipment or environmental conditions, are otherwise immunocompromised, or are affected by clostridial disease, and the vaccine is not administered in accordance with label directions.


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