Colorado Serum Company got its start in the early 1900’s when Hog Cholera disease was decimating the swine industry in the United States.

Dr. J.N. Huff, a graduate of the Kansas City Veterinary College, moved to Denver, CO in 1922 to open a satellite manufacturing plant to the original “American Serum Company” founded in Sioux City, IA. Denver’s high altitude provided hogs with added and enriched blood, so Colorado was considered an ideal environment for producing a new antiserum for Hog Cholera. In 1923, the small Denver plant began production and shortly thereafter separated from American Serum to become Colorado Serum Company. Hog Cholera was eventually eradicated from the United States.

Colorado Serum Company went on to expand its product lines to include a full range of large animal biologicals, large animal veterinary instruments, veterinary diagnostics, specialty products, and laboratory reagents. The facilities now cover 22 acres in Denver and contain all manufacturing as well as administrative offices. Products are marketed and distributed by numerous animal health companies across the globe.

Colorado Serum Company is proud to be a 4th generation family-owned company, riding the edge of current science while continuing the valued and time honored traditions of personal and responsive service.

Colorado Serum Company Milestones

- **Dr. Joseph Huff establishes Colorado Serum Company**
  - 1923

- **Created Professional Biological Company as a subsidiary**
  - 1940’s

- **First to introduce Crystal Violet Hog Cholera Vaccine**
  - 1950’s

- **Added and relocated Western Instrument Company**
  - 1960’s

- **Introduced livestock Anthrax Spore Vaccine**
  - Only remaining manufacturer in the US today
First company licensed for Lepto-5

Introduced the first concentrated & purified West Nile Virus Antibody

1970's

1980's & 90's

2004

Today

Introduced Brucella Abortus RB-51 vaccine

Only manufacturer of Ovine Chlamydia vaccine in the US

Continuing research & development for emerging diseases and product improvement
<table>
<thead>
<tr>
<th>Product for animal use only</th>
<th>Horse</th>
<th>Cattle</th>
<th>Swine</th>
<th>Goats</th>
<th>Sheep</th>
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<td>Cl. Perfringens Types C&amp;D Antitoxin, Equine Origin</td>
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<td><strong>Encephalomyelitis Vaccine E&amp;W</strong></td>
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<td>C</td>
<td>Sw</td>
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<td><strong>Tetanus Toxoid – Unconcentrated</strong></td>
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<td>C</td>
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<td><strong>West Nile Virus Antibody, Equine Origin</strong></td>
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</table>

For use by or under the direction of a veterinarian
**INDICATIONS:** For use in healthy cattle, sheep, goats, swine and horses as an aid in the prevention of anthrax. A suspension of viable Bacillus anthracis Sterne Strain 34F2 spores in saponin.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 42 days before slaughter.

In areas where anthrax is known to be a problem, it is advisable to revaccinate annually approximately 4 weeks prior to the time the disease usually appears.

For control of outbreaks, vaccination of all animals not showing symptoms is recommended. Not all animals will be protected by this procedure but taking action as suggested may stop further spread of the disease. It is also recommended that animals showing symptoms be isolated and treated with antibiotics as permitted.

Animals being vaccinated or recently vaccinated should not receive antibiotics, as antibiotics will interfere with effective vaccination.

Do not use disinfectants to sterilize equipment.

**PRECAUTIONS:** In the event of accidental human exposure, consult a physician. Adverse reactions have been reported in young and miniature horses. Consult your veterinarian when considering vaccination of exotic or sensitive species and immunologically immature or stressed animals. Burn, autoclave or chemically disinfect container and all unused contents. Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:** Inject 1 ml subcutaneously into each animal. Revaccinate in 2-3 weeks in heavily contaminated areas. The region of the neck just in front of the shoulder is a convenient site for administering the vaccine to cattle and swine. Sheep and goats should be vaccinated subcutaneously on their side (mid-thorax) halfway between the front and back legs. Horses may be vaccinated subcutaneously in the middle portion of the neck or in the brisket at a time when the animals are not being heavily worked. Light to moderate swelling may appear at the injection site. This will disappear after several days.

**INDICATIONS:** For use in healthy sheep and goats as an aid in the prevention of Type 10 Bluetongue virus infection. Contains penicillin and streptomycin as preservatives.

**DIRECTIONS:** Store at 2° to 7° C. Rehydrate the vaccine (with accompanying diluent) immediately before use. Shake well after rehydration. Use entire contents when first opened. Do not administer to pregnant animals. Do not vaccinate within 21 days before slaughter.

Sterilize syringes and needles by boiling in clean water – do not use disinfectants or detergents. Incidence of Bluetongue is seasonal, with animals contracting the disease mostly in August and September due to the virus being transmitted by biting insects. Treatment is almost totally ineffective and preventive vaccination, late in the Spring or in the early Summer not only is recommended, but becomes vitally important.

Lambs from immune ewes carry a degree of resistance to Bluetongue which may last as long as 3 months. Lambs should be vaccinated close to weaning time as this is the time when maternal antibodies disappear. If vaccinated too young, the maternal antibodies may interfere with proper active immune response.

All breeding stock should be protected with Bluetongue Vaccine approximately three weeks prior to breeding or after lambing.

**PRECAUTIONS:** In the event of accidental human exposure, consult a physician. Burn, autoclave or chemically disinfect container and all unused contents. Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:** Inject 2 ml subcutaneously or intramuscularly in axillary space (between foreleg and body).
**BOVI-SERA SERUM ANTIBODIES**

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

**FOR VETERINARY USE ONLY**

Cat. #13551 20ml  
Cat. #13553 250ml  
Cat. #13555 1000ml

**INDICATIONS:** For use as an aid in the prevention and treatment of enteric and respiratory conditions caused by the micro-organisms named.

Contains thimerosal and phenol as preservatives.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:** Inject subcutaneously or intramuscularly and repeat according to judgment of user. Administer at 12-24 hour intervals until improvement is noted. Use multiple sites or IV for large doses. It is recommended to limit injections to no more than 10ml per injection site.

**FOR PREVENTION:**

<table>
<thead>
<tr>
<th>CALVES</th>
<th>CATTLE</th>
<th>SHEEP</th>
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<tbody>
<tr>
<td>20 to 40 ml</td>
<td>50 to 75 ml</td>
<td>10 to 15 ml</td>
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</table>

Provides immediate and short-term protection lasting 7-21 days

**FOR TREATMENT:**

<table>
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<tr>
<th>CALVES</th>
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<th>SHEEP</th>
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<tr>
<td>40 to 100 ml</td>
<td>75 to 150 ml</td>
<td>20 to 40 ml</td>
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</tbody>
</table>

Can be used in conjunction with antibiotic treatments

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**BOVIB-LEPTO 5**

Campylobacter Fetus-Leptospira Canicola-Grippotyphosa-Hardjo-Icterohaemorrhagiae-Pomona Bacterin  
Killed Bacterin

Cat. #11582 20ml 10 Dose  
Cat. #11584 100ml 50 Dose

**INDICATIONS:** For use in healthy cattle as an aid in the prevention of infertility, delayed conception, abortions, and losses from diseases caused by the micro-organisms named.

Vaccine is an aqueous suspension of inactivated cultures of *Campylobacter fetus* subsp. *fetus*, *Leptospira canicola*, *grippotyphosa*, *hardjo*, *icterohaemorrhagiae*, and *pomona*. Contains aluminum hydroxide as an adjuvant.

Contains penicillin, streptomycin and thimerosal as preservatives.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:** Inject one 2 ml dose subcutaneously. Administer 30 to 60 days prior to breeding. For exposed herds and in endemic areas, a second dose at 3 to 4 weeks is recommended. Revaccinate annually using a single dose.

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www.coloradoserum.com
**INDICATIONS:** For use in healthy female cattle as an aid in the control of Bovine Genital Campylobacteriosis (vibriosis) caused by the subsp. named.

An aqueous suspension of inactivated cultures of *Campylobacter fetus* subsp. *fetus* in a mineral oil adjuvant.

Contains thimerosal as a preservative.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 60 days before slaughter.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:** Inject 2 ml subcutaneously in the top part of the neck.

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**INDICATIONS:** For use in healthy ewes as an aid in the control of Ovine Genital Campylobacteriosis (vibriosis) caused by *Campylobacter fetus* subspecies *jejuni* (type I) and subspecies *intestinalis* (type V).

Vaccine is an aqueous suspension of inactivated cultures named and contains aluminum hydroxide as an adjuvant.

Contains thimerosal as a preservative.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:** Inject 5 ml subcutaneously in the fold of the skin behind the axillary space shortly before breeding. Repeat in 60-90 days.

Revaccinate annually using a single dose.
### CASE-BAC
Corynebacterium Pseudotuberculosis
Bacterin - Toxoid
Killed Bacterin-Toxoid

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Volume</th>
<th>Doses</th>
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</thead>
<tbody>
<tr>
<td>#11442</td>
<td>20ml</td>
<td>10 Dose</td>
</tr>
<tr>
<td>#11444</td>
<td>100ml</td>
<td>50 Dose</td>
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</table>

**INDICATIONS:** For use in healthy sheep as an aid in the prevention of Caseous lymphadenitis.

A detoxified and purified whole culture of Corynebacterium pseudotuberculosis. Contains thimerosal as a preservative.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Sterilize syringes and needles by boiling in clean water.

It has been shown that this product will control Caseous lymphadenitis when sheep are vaccinated prior to exposure to the disease. It has also been shown that little or no benefit can be expected when animals with visible signs of the disease are vaccinated. Those showing infection should be immediately culled from the flock and disposed of or held away from those animals that appear to be in good health.

Slight lameness (soreness) in lambs may be observed, along with lethargy, in a percentage of the mature animals following vaccination. Sheep are inclined to become depressed and may limp after foreign substances are administered or because of increased exertion and stimulation of vaccination. While noticeable, these symptoms usually disappear within 24-48 hours and can be considered minor vaccination reactions. If suggested care is taken in preparing vaccination equipment and in administering the product there should be no abscessation at the site of injection.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

In the event of accidental human exposure, consult a physician.

**DOSAGE AND ADMINISTRATION:** Inject 2 ml subcutaneously in axillary space. Repeat full 2 ml dose in 4 weeks (opposite axillary space). Revaccinate annually using a single dose.

### CASEOUS D-T
Clostridium Tetani-Perfringens Type D-
Corynebacterium Pseudotuberculosis
Bacterin-Toxoid
Killed Bacterin-Toxoid

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Volume</th>
<th>Doses</th>
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</thead>
<tbody>
<tr>
<td>#11452</td>
<td>20ml</td>
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</tr>
<tr>
<td>#11454</td>
<td>100ml</td>
<td>50 Dose</td>
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**INDICATIONS:** For use in healthy sheep as an aid in the prevention of enterotoxemia associated with Clostridium perfringens Type D; toxemia caused by Clostridium tetani; and Caseous lymphadenitis, a disease characterized by localized collections of pus in the tissues of the body caused by Corynebacterium pseudotuberculosis.

Contains thimerosal as a preservative.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Sterilize syringes and needles by boiling in clean water.

It has been shown that this product will aid in the prevention and control of Caseous lymphadenitis when sheep are vaccinated prior to exposure to the disease. It has also been shown that little or no benefit can be expected when animals with visible signs of the disease are vaccinated. Those showing infection should be immediately culled from the flock and disposed of or held away from those animals that appear to be in good health.

Slight lameness (soreness) in lambs may be observed, along with lethargy, in a percentage of the mature animals following vaccination. Sheep are inclined to become depressed and may limp after foreign substances are administered or because of increased exertion and stimulation of vaccination. While noticeable, these symptoms usually disappear within 24-48 hours and can be considered minor vaccination reactions. If suggested care is taken in preparing vaccination equipment and in administering the product there should be no abscessation at the site of injection.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

In the event of accidental human exposure, consult a physician.

**DOSAGE AND ADMINISTRATION:** Inject 2 ml subcutaneously in axillary space. Repeat full 2 ml dose in 4 weeks (opposite axillary space). Revaccinate annually using a single dose.
**INDICATIONS:** For use in healthy ewes as an aid in the control of Ovine Enzootic Abortion.

Contains penicillin and streptomycin as preservatives.

Vaccine is an aqueous suspension of inactivated cultures of *Chlamydia psittaci*, abortigenic serovar, emulsified with a mineral oil adjuvant.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 60 days before slaughter.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

Use of products containing oil adjuvants may result in formation of a transient or more permanent granuloma of small to moderate size.

**DOSAGE AND ADMINISTRATION:** Aseptically inject 2 ml subcutaneously in the upper part of the neck 60 days prior to breeding. Repeat the dose 30 days later.

Revaccinate annually just prior to breeding.

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**INDICATIONS:** For use in healthy cattle, sheep and goats as an aid in the prevention of “Red Water” Disease (Bacillary Hemoglobinuria). Formalin inactivated *Clostridium haemolyticum*, aluminum hydroxide adsorbed. Contains thimerosal as a preservative.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

Use of products containing oil adjuvants may result in formation of a transient or more permanent granuloma of small to moderate size.

**DOSAGE AND ADMINISTRATION:** Inject 2 ml subcutaneously or intramuscularly.

Revaccinate every 5 to 6 months where constant exposure is likely. Spring vaccination is recommended because disease is most prevalent in summer months. Calves should be vaccinated at 3-4 months of age.

Revaccinate annually using a single dose.
**INDICATIONS:** For use in healthy cattle, sheep and goats as an aid in the prevention of Blackleg and Malignant Edema. Product is aluminum hydroxide adsorbed. Contains thimerosal as a preservative.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:**
- **Cattle:** Inject 5ml subcutaneously. Calves vaccinated under three months of age should be revaccinated at weaning or 4 to 6 months of age.
- **Sheep and Goats:** Inject 3ml subcutaneously. Revaccinate with Mannheimia Haemolytica-Pasteurella Multocida Bacterin in 2 to 4 weeks.
**INDICATIONS:** For use in healthy cattle, sheep and goats as an aid in the prevention of enterotoxemia caused by *Clostridium perfringens* Types B, C, and D. *Clostridium perfringens* Type B is not a significant problem in North America.

For use in healthy swine as an aid in the prevention of enterotoxemia caused by *Clostridium perfringens* Type C.

Contains thimerosal as a preservative.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Vaccinate sufficiently in advance of feeding concentrated rations to provide a minimum of 2 weeks after second dose for adequate immunity to develop.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:** Inject 2 ml subcutaneously or intramuscularly. Repeat full dose in 3 to 4 weeks.

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**INDICATIONS:** For use in healthy cattle, sheep and goats as an aid in the prevention of enterotoxemia caused by *Clostridium perfringens* Types B, C, and D. *Clostridium perfringens* Type B is not a significant problem in North America.

For use in healthy swine as an aid in the prevention of enterotoxemia caused by *Clostridium perfringens* Type C.

For the long-term protection against tetanus.

Contains thimerosal as a preservative.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Vaccinate sufficiently in advance of feeding concentrated rations to provide a minimum of 2 weeks after second dose for adequate immunity to develop.

Tetanus toxoid requires 3 to 4 weeks to establish effective protection that will last several months. Booster injections should be made annually, or, in event of injury, regardless of interval.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:** Inject 2 ml subcutaneously or intramuscularly. Repeat full dose in 3 to 4 weeks.
INDICATIONS: For use in healthy cattle, sheep and goats as an aid in the prevention of Blackleg, Malignant Edema, Black Disease, and *Clostridium sordellii* infection.

Product is aluminum hydroxide adsorbed. Contains thimerosal as a preservative.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: Inject subcutaneously or intramuscularly.

Cattle: 5 ml.
Sheep and Goats: 2 ½ ml. subcutaneously

Revaccination with a Bacterin containing *Clostridium sordellii* at 2 to 4 weeks, a repeat dose every 5 to 6 months in animals subject to re-exposure to *Clostridium novyi*, and revaccination of calves vaccinated under 3 months of age at weaning or 4 to 6 months of age.

INDICATIONS: For use as an aid in the temporary prevention or treatment of Clostridial enterotoxemia in cattle, sheep, and goats caused by types B, C, and D toxin and in swine when caused by type C. Type D is not known to cause disease in swine and type B is not a significant problem in North America.

Contains phenol and thimerosal as preservatives.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: Shake well, use aseptic subcutaneous injection of the following doses for prevention:

- **Suckling Lambs, Goats and Pigs:** 5 ml
- **Suckling Calves:** 10 ml
- **Feeder Calves and Cattle:** 25 ml
- **Feeder Lambs and Pigs:** 10 ml

For treatment, double the preventative dose.

A more rapid effect can be achieved by intravenous administration, with repeat dosages as often as 12 hour intervals.
INDICATIONS: For use in healthy equines as an aid in the prevention of Eastern and Western types of Encephalomyelitis.

Formalin inactivated adjuvanted equine encephalomyelitis vaccine. Contains thimerosal, penicillin, and streptomycin as preservatives.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Do not vaccinate within 21 days before slaughter.

Shake well before use. Use entire contents when first opened.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: Inject two 1ml doses intramuscularly with an interval of 3 weeks between injections. Revaccinate annually using a single dose and whenever an epidemic situation develops and exposure is likely.

Encephalomyelitis is spread by biting insects, so animals should be vaccinated prior to the time insects become prevalent.

INDICATIONS: For use in healthy equines as an aid in the prevention of Eastern and Western types of Encephalomyelitis and tetanus.

Formalin inactivated adjuvanted equine encephalomyelitis vaccine in combination with concentrated tetanus toxoid. Contains thimerosal, penicillin, and streptomycin as preservatives.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Do not vaccinate within 21 days before slaughter.

Shake well before use. Use entire contents when first opened.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: Inject two 2ml doses intramuscularly with an interval of 3 weeks between injections. Revaccinate annually using a single dose and whenever an epidemic situation develops and exposure is likely.

Encephalomyelitis is spread by biting insects, so animals should be vaccinated prior to the time insects become prevalent.
**INDICATIONS:** For use in healthy cattle and calves as an aid in the prevention of disease due to Bovine Rhinotracheitis Virus infection.

Contains penicillin and streptomycin as preservatives.

This disease does not respond well to supportive therapy. Prevention is the only practical way to avoid the losses that accompany outbreaks.

**DIRECTIONS:** Store at 2° to 7° C. Rehydrate with accompanying vial of sterile diluent supplied as a component part of this package. Shake well after rehydration. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Do not administer to pregnant cows or calves nursing pregnant cows. Do not administer to calves less than 4 weeks of age.

Cattle should be vaccinated before or when entering feedlots or areas where dairies are located.

Yearly booster injections are recommended for breeding stock. Be sure that breeding stock are vaccinated on a regular basis when cows are open.

Sterilize syringes and needles by boiling in clean water – do not use disinfectants or detergents.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

Burn, autoclave, or chemically disinfect this container and all unused contents.

**DOSAGE AND ADMINISTRATION:** Inject 2ml of the combined product intramuscularly (preferably in the neck region).

Maternal antibodies in young calves may interfere with development of active immunity. If necessary to vaccinate young calves, revaccinate these animals at 6 months of age.
INDICATIONS: For use in healthy cattle as an aid in the prevention of disease due to Bovine Virus Diarrhea virus.

Contains penicillin and streptomycin as preservatives.

DIRECTIONS: Store at 2° to 7° C. Rehydrate with accompanying vial of sterile diluent supplied as a component part of this package. Shake well after rehydration. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Cattle should be vaccinated before or when entering feedlots or areas where dairies are located.

Sterilize syringes and needles by boiling in clean water – do not use disinfectants or detergents.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

Burn, autoclave, or chemically disinfect this container and all unused contents.

DOSAGE AND ADMINISTRATION: Inject 2ml of the combined product intramuscularly (preferably in the neck region).

Do not administer to pregnant cows or calves nursing pregnant cows.

Yearly booster injections are recommended for breeding stock. Be sure that breeding stock are vaccinated on a regular basis when cows are open.

Maternal antibodies in young calves may interfere with development of an active immunity. If emergency conditions require vaccination these calves should be revaccinated one month after weaning.

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INDICATIONS: For use in healthy calves and non-pregnant cattle as an aid in the prevention of infectious Bovine Rhinotracheitis and Leptospirosis caused by the serotypes included in the bacterin.

Contains thimerosal, penicillin, and streptomycin as preservatives.

DIRECTIONS: Store at 2° to 7° C.

Rehydrate the vaccine just prior to use. To rehydrate, withdraw the entire contents of the accompanying Lepto-5 Bacterin vial with a sterile syringe and needle, without removing the stopper, and transfer it to the vial of dried vaccine. Shake well after rehydration. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Do not administer to pregnant cows or calves nursing pregnant cows. Do not administer to calves less than 4 weeks of age. Maternal antibodies in young calves may interfere with development of active immunity. If necessary to vaccinate young calves, revaccinate these animals at 6 months of age.

Cattle should be vaccinated before or when entering feedlots or areas where dairies are located.

Yearly booster injections are recommended for breeding stock. Be sure that breeding stock are vaccinated on a regular basis when cows are open.

Sterilize syringes and needles by boiling in clean water – do not use disinfectants or detergents.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

Burn, autoclave, or chemically disinfect this container and all unused contents.

DOSAGE AND ADMINISTRATION: Inject 2ml of the combined product intramuscularly (preferably in the neck region).
**PRE BREED 8**
**IBR-BVD-PI3-LEPTO 5**
Modified Live Virus/Killed Bacterin

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Size</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>19554</td>
<td>100ml</td>
<td>50 Dose</td>
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</table>

**INDICATIONS:** For use in healthy calves and non-pregnant cattle as an aid in the prevention of infectious Bovine Rhinotracheitis, Bovine Virus Diarrhea, Parainfluenza 3, and Leptospirosis caused by the serotypes included in the Bacterin.

Contains thimerosal, penicillin, and streptomycin as preservatives.

**DIRECTIONS:** Store at 2° to 7° C.

Rehydrate the vaccine just prior to use. To rehydrate, withdraw the entire contents of the accompanying Lepto-5 Bacterin vial with a sterile syringe and needle, without removing the stopper, and transfer it to the vial of dried vaccine. Shake well after rehydration. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Do not administer to pregnant cows or calves nursing pregnant cows. Do not administer to calves less than 4 weeks of age. Maternal antibodies in young calves may interfere with development of active immunity. If necessary to vaccinate young calves, revaccinate these animals at 6 months of age.

Cattle should be vaccinated before or when entering feedlots or areas where dairies are located.

Yearly booster injections are recommended for breeding stock. Be sure that breeding stock are vaccinated on a regular basis when cows are open.

Sterilize syringes and needles by boiling in clean water – do not use disinfectants or detergents.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

Burn, autoclave, or chemically disinfect this container and all unused contents.

**DOSAGE AND ADMINISTRATION:** Inject 2ml of the combined product intramuscularly (preferably in the neck region).

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**LEPTO 5**
Leptospira Canicola-Grippotyphosa-Hardjo-Icterohaemorrhagiae-Pomona Bacterin
Killed Bacterin

<table>
<thead>
<tr>
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<th>Size</th>
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</tr>
</thead>
<tbody>
<tr>
<td>11852</td>
<td>20ml</td>
<td>10 Dose</td>
</tr>
<tr>
<td>11854</td>
<td>100ml</td>
<td>50 Dose</td>
</tr>
</tbody>
</table>

**INDICATIONS:** For use in healthy cattle and swine as an aid in the prevention of Leptospirosis caused by the the organisms named.

Product is aluminum hydroxide adsorbed.

Contains thimerosal as a preservative.

**DIRECTIONS:** Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Do not use as a diluent for live vaccines.

**PRECAUTIONS:** Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

**DOSAGE AND ADMINISTRATION:** Inject 2ml intramuscularly or subcutaneously.

For swine, a second dose should be administered 2-4 weeks later.

Annual single dose re-vaccination is recommended for both species.
INDICATIONS: For use in healthy cattle, sheep and goats as an aid in the prevention of Pasteurellosis caused by the micro-organisms named. Product is chemically killed, aluminum hydroxide adsorbed, cultures of *Mannheimia haemolytica*, and *Pasteurella multocida*, Bovine isolates. Contains thimerosal as a preservative.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: Inject 2ml subcutaneously. Administer two doses, 2 to 4 weeks apart.

Animals vaccinated when less than 3 months old should be revaccinated at weaning or at 4 to 6 months of age.

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INDICATIONS: For use as an aid in non-specific treatment of equine infections and disease conditions. Also recommended for non-specific treatment of anemia, haemorrhage, shock following injury, and debilitating conditions for which blood enrichment is desired. Administration provides supplemental equine albumin, globulins, and associated fluids.

Contains phenol and thimerosal as preservatives.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

A condition referred to as “serum hepatitis” infrequently occurs in horses. The literature associates this partially with the injection of biologics containing equine serum or tissue. However, efforts to experimentally reproduce such a condition in horses have not been successful.

DOSAGE AND ADMINISTRATION: Inject subcutaneously, intramuscularly, or intravenously, 50ml to 250ml depending upon weight of animal and judgment of veterinarian administering. Repeat doses may be given.

Use multiple sites or IV for large doses. It is recommended to limit injections to no more than 10ml per injection site.
INDICATIONS: For use on healthy sheep and goats as an aid in the control of “Sore Mouth” disease. Contains penicillin and streptomycin as preservatives.

DIRECTIONS: Store at 2° to 7° C. Use entire contents when first rehydrated. Do not vaccinate within 21 days before slaughter or within 24 hours of dipping or spraying.

It is advisable to vaccinate each new lamb and kid crop. Since exposure to infection can occur during shipping, range lambs moving into feedlots should be vaccinated at least 14 days before shipment to prevent possible rapid spread of the disease after arrival.

Normally only healthy animals should be vaccinated, but experience has shown that vaccination of infected sheep and lambs tends to shorten the course of disease during an outbreak of “Sore Mouth.”

Do not use disinfectants to sterilize equipment.

PRECAUTIONS: In the event of accidental human exposure, consult a physician. Burn, autoclave or chemically disinfect container and all unused contents.

DOSAGE AND ADMINISTRATION: Select a wool free area of skin, such as the inside of the flank and scarify the outer layer by scratching with the notched handle of the enclosed applicator. Scratching need not be deep enough to cause bleeding but should be sufficient to adequately roughen the skin. An area of at least one square inch should be scarified. Rehydrate the vaccine (with accompanying diluent) immediately before use and apply with enclosed brush or by placing a drop on the scarified area and brush vigorously.

Reddening and slight swelling at the site of administration should be observed a few days after vaccination. This will develop into raised areas that will rupture and scab over representing a “take” that indicates successful vaccination. Scabs will dry and fall off in about 2 to 4 weeks.

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INDICATIONS: For use in healthy rams as an aid in the prevention of disease due to Ram Epididymitis.

Bacterin is aluminum hydroxide adsorbed. Contains thimerosal as a preservative.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: Inject 2ml subcutaneously in loose skin behind shoulder or at side of neck. Repeat dose in 30-60 days.

Vaccinate mature rams. It is recommended to vaccinate ram lambs at weaning age.

Annual booster dose is recommended.
INDICATIONS: For use as an aid in the prevention and treatment of enteric and respiratory conditions caused by the micro-organisms named. Contains thimerosal and phenol as preservatives.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: Inject subcutaneously or intramuscularly and repeat according to judgment of user. Administer at 12-24 hour intervals until improvement is noted. Use multiple sites or IV for large doses. It is recommended to limit injections to no more than 10ml per injection site.

FOR PREVENTION: CALVES CATTLE SHEEP
20 to 40 ml 50 to 75 ml 10 to 15 ml
as soon after birth as possible

Provides immediate and short-term protection lasting 7-21 days

FOR TREATMENT: CALVES CATTLE SHEEP
40 to 100 ml 75 to 150 ml 20 to 40 ml

Can be used in conjunction with antibiotic treatments

INDICATIONS: For use in healthy cattle as an aid in the prevention of Salmonella infections caused by the micro-organisms named.

Formalin killed, aluminum hydroxide adsorbed cultures of Salmonella dublin and, bovine isolates.

Contains thimerosal as a preservative.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: Inject subcutaneously.

In areas where Salmonella infections have been a problem, adult cattle, pregnant cows, and newborn calves should all be given two injections of 2 ml each at an interval of 14 to 21 days.

Boost immunity in pregnant cows with annual 2 ml injection.

Vaccinate adult cattle prior to placing on feed and pregnant cows 4 to 6 weeks before calving time.

Newborn calves should be left on cows for 7 days at which time bacterin can be administered.

www.coloradoserum.com
FOR VETERINARY USE ONLY

TETANUS ANTITOXIN
Equine Origin

Cat. #13601 1 X 1,500 Units
Cat. #13603 10 X 1,500 Units
Cat. #13604 1 X 15,000 Units

INDICATIONS: For use as an aid in the prevention and treatment of tetanus in animals. Contains phenol and thimerosal as preservatives.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Administration of Tetanus Antitoxin is recommended for use whenever a non-immunized animal, or one whose immune status is unknown, suffers a deep penetrating wound that has or may become contaminated with soil. It provides quick but short-term protection. Antitoxin may also be administered to animals following castration, docking, and other operations performed on premises upon which tetanus infection has been a problem.

Vaccination with tetanus toxoid is recommended for healthy domestic animals not infected with tetanus, to establish an active immunity for prevention against disease. Consult with a veterinarian for specific vaccination recommendations.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

In the event of accidental human exposure, consult a physician.

DOSAGE AND ADMINISTRATION: Tetanus antitoxin confers immediate passive immunity lasting about 7 to 14 days. 1500 units administered subcutaneously or intramuscularly is the recommended dose for prevention.

Large doses of Tetanus Antitoxin may provide beneficial response in animals already infected with tetanus, but success of treatment is not assured. For treatment, administer 10,000 to 50,000 units to horses and cattle; 3,000 to 15,000 units to sheep and swine.

Animals that suffer slow healing puncture wounds or deep abrasions should be given a second dose of antitoxin in 7 days and additionally as considered necessary.

TETANUS TOXOID
Concentrated, Adjuvanted
Detoxified Toxin

Cat. #11411 10 X 1ml 10 X 1 Dose
Cat. #11415 10ml 10 Dose

INDICATIONS: For use as an aid in the prevention of tetanus. Contains thimerosal as a preservative.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Vaccination with Tetanus Toxoid is recommended for healthy domestic animals, not infected with tetanus, to establish an active immunity for prevention against disease. Protective antibody levels usually occur about two weeks after the second injection of the primary immunization series.

In contrast, administration of Tetanus Antitoxin is recommended for immediate, emergency, passive treatment of exposed animals with an unknown vaccination history or with signs of tetanus infection. Refer to the Tetanus Antitoxin product circular for full information and consult with a veterinarian.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: For primary immunization, two doses should be administered subcutaneously or intramuscularly approximately 30 days apart. Use intramuscularly for horses, as local reactions are more likely to occur if injected subcutaneously.

Cattle and Horses: 1 ml dose
Sheep, Goats, and Swine: 0.5 ml dose

Revaccinate annually using a single dose.
INDICATIONS: For use as an aid in the prevention of tetanus. Contains thimerosal as a preservative.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

Vaccination with Tetanus Toxoid is recommended for healthy domestic animals, not infected with tetanus, to establish an active immunity for prevention against disease. Protective antibody levels usually occur about two weeks after the second injection of the primary immunization series.

In contrast, administration of Tetanus Antitoxin is recommended for immediate, emergency, passive treatment of exposed animals with an unknown vaccination history or with signs of tetanus infection. Refer to the Tetanus Antitoxin product circular for full information and consult with a veterinarian.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION: For primary immunization, two doses should be administered subcutaneously or intramuscularly approximately 30 days apart. Use intramuscularly for horses, as local reactions are more likely to occur if injected subcutaneously.

Cattle/horses: 2 doses of 10 ml each at 30 day intervals
Sheep/goats/swine: 2 doses of 1 ml each per cwt. at 30 day intervals

Revaccinate annually using a single dose.

INDICATIONS: For use in healthy cattle as an aid in the prevention of viral warts (papillomas).

Tested for purity and safety.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Shake well before use. Use entire contents when first opened. Do not vaccinate within 21 days before slaughter.

PRECAUTIONS: Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenalin or equivalent.

DOSAGE AND ADMINISTRATION:
Calf Dose: 10ml
Inject 5mls subcutaneously in two separate sites along the side of the neck. Repeat at 3 to 5 weeks.

Cattle Dose: 15ml
Inject 7.5 mls subcutaneously in two separate sites along the side of the neck. Repeat at 3 to 5 weeks.
INDICATIONS: For use in one year or older horses as an aid in the control of disease caused by West Nile Virus.

For use by or under the supervision of a veterinarian. This product is conditionally licensed. Efficacy and potency test studies in progress.

Contains thimerosal as a preservative.

DIRECTIONS: Store at 2° to 7° C. Do not freeze. Warm to body temperature before use. Use entire contents when first opened. This product has a 21 day withdrawal period.

PRECAUTIONS: Anaphylactoid reaction, which occurs rarely, should be treated with administration of adrenalin or equivalent.

A condition referred to as "serum hepatitis" has been associated infrequently with the use of biologics containing equine serum. Efforts to experimentally reproduce this condition have not been successful. Safety of repeated injections and use in pregnant animals have not been established.

DOSAGE AND ADMINISTRATION: Product is for IV administration and may be given undiluted or diluted in Sterile Lactated Ringers Solution.

Administer 10ml per 100 lbs. of body weight using a sterile IV catheter.
POLICIES AND TERMS OF SALE

- Prepaid ground shipping rates on orders of $100 or more
- Orders less than $100 will be assessed $10 plus shipping costs
- Current shipping rates will be assessed on customer expedited orders of one, two, or three-day select
- Deliveries requiring in excess of four concurrent working days will be shipped UPS 3-Day select unless customer advises otherwise
- Payment terms are Net 30 days from invoice date

RETURN POLICY

- Some products are NOT eligible for return or credit – please inquire
- Request for return/credit authorization of eligible products must be in writing within 90 days of expiration date printed on product
- Return/credit request must include:
  - Product number & size
  - Serial number & expiration date
  - Quantity to be returned
  - Date of purchase and invoice number, if available

- Products must be returned through original purchaser
- Credit will be issued at lower of purchase or current price and must be applied ONLY to future purchases within one year
Colorado Serum Company
4950 York Street
P.O. Box 16428
Denver, Colorado 80216
Ph: 800/525-2065    Fax:303/295-1923