Estrumate®
cloprostenol sodium
An Analogue of Prostaglandin F₂α, for Intramuscular Injection in Beef and Dairy Cattle.
Equivalent to 250 mcg cloprostenol/mL

CAUTION: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.
FOR VETERINARY USE ONLY

100 mL  50 Doses

Heat That Can’t Be Ignored

Estrumate® (cloprostenol sodium)
Estrumate® is a proven tool that provides many performance benefits:

For dairy producers:

- Increases convenience for heat detection and controlled breeding
- Allows you to use AI more conveniently
- Helps control calving intervals
- Assists in scheduling heifers’ entry into milking herd

For cow/calf producers:

- Reduces dependence on heat detection
- Tightens the breeding and calving seasons
- Maximizes the use of selected bulls
- Uses AI more conveniently

Estrumate® Key Label Claims

Cloprostenol sodium, the active ingredient in Estrumate, is the only prostaglandin approved for controlled breeding in lactating dairy cows.

<table>
<thead>
<tr>
<th>Estrumate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dose</strong></td>
</tr>
<tr>
<td><strong>Package sizes</strong></td>
</tr>
<tr>
<td><strong>Doses per bottle</strong></td>
</tr>
<tr>
<td><strong>Active ingredient</strong></td>
</tr>
</tbody>
</table>

**Terminating pregnancies from mismatings**

<table>
<thead>
<tr>
<th></th>
<th>Approved for beef and dairy cattle, excluding heifers placed in feedlots</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class of cattle</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Timing</strong></td>
<td>From 1 week after mating until about 5 months of gestation</td>
</tr>
</tbody>
</table>
Estrumate (cloprostenol sodium)

The luteolytic action of Estrumate can be utilized:

- To manipulate the estrous cycle to better fit certain management practices
- To terminate pregnancies resulting from mismatings
  - Using Estrumate, unwanted pregnancies can be safely and efficiently terminated from 1 week after mating until about 5 months of gestation
- To treat certain conditions associated with prolonged luteal function, such as pyometra or chronic endometritis

Estrumate highlights:

- Induces luteolysis
- Provides a rapid estrus response
- Improves reproductive performance
- Administered in a convenient 2mL dose
- Available in 10- and 50-dose bottles

Read the label for more information and work with your veterinarian to maximize reproductive performance in your herd.

At 50 and 100 times the recommended dose, mild side effects may be detected in some cattle; these include increased uneasiness, sight frothing and milk let-down.

Contraindications: Estrumate should not be administered to a pregnant animal whose calf is not to be aborted.

Warnings: Women of childbearing age, asthmatics, and persons with bronchial and other respiratory problems should exercise extreme caution when handling this product. In the early stages, women may be unaware of their pregnancies. Estrumate is readily absorbed through the skin and may cause abortion and/or bronchiospasms; direct contact with the skin should therefore be avoided. Accidental spillage on the skin should be washed off immediately with soap and water.
Estrumate® (cloprostenol sodium) is a synthetic prostaglandin analogue structurally related to prostaglandin F2 α (PGF2 α). Each mL of the colorless aqueous solution contains 263 mcg of cloprostenol sodium (equivalent to 250 mcg of cloprostenol) in a sodium chloride, antifoam citric acid, and sodium citrate buffer containing 0.1% w/v chlorbutol sp. as a bactericide. pH is adjusted, as necessary, with sodium hydroxide or citric acid.

2 Double Estrumate injections: prior to treatment, cattle should be examined rectally and found to be anatomically normal, nonpregnant, and cycling (the presence of a mature corpus luteum is not necessary when the first injection of a double injection regimen is given). A second injection should be given 11 days after the first injection. In normal, cycling, cattle, estrus is expected 2 to 5 days following the second injection. Treated cattle should be inseminated at the usual time following detection of estrus. If estrus detection is not desirable or possible, treated animals may be inseminated either once at about 72 hours or twice at about 72 and 96 hours following the second Estrumate injection. Many animals will come into estrus following the first injection; these animals can be inseminated at the usual time following detection of estrus. Animals not inseminated should receive a second injection 11 days after the first injection. Animals receiving both injections may be inseminated at the usual time following detection of estrus or may be inseminated either once at about 72 hours or twice at about 72 and 96 hours post second injection. Any controlled breeding program recommended should be completed by either:

- observing animals (especially during the third week after injection) and human mating any animals returning to estrus,
- or
- turning in clean-up bull(s) 5 to 7 days after the last injection of Estrumate to cover any animals returning to estrus.

REQUIREMENTS FOR CONTROLLED BREEDING PROGRAMS:
A variety of programs can be designed to best meet the needs of individual management systems. A controlled breeding program should be selected which is appropriate for the existing circumstances and management practices.

Before a controlled breeding program is planned, the producer’s objectives must be established and he must become aware of the program that is to be used. The producer and his consulting veterinarian need to review the operation’s breeding history, herd health, and nutritional status and agree on a controlled breeding program that is practical for the producer’s specific situation. For any successful controlled breeding programs:

- cows and heifers must be normal, nonpregnant, and cycling (rectal palpation should be performed);
- cattle must be in a fit and fertile breeding condition and on an adequate or increasing plane of nutrition;
- proper program planning and record keeping are essential;
- if artificial insemination is used, it must be performed by competent inseminators using high-quality sperm.

It is important to understand that Estrumate is effective only in animals with a mature corpus luteum (oxidation must have occurred at least 5 days prior to treatment). This must be considered when breeding is intended following a single Estrumate injection.

SAFETY AND TOXICITY:
At 50 and 100 times the recommended dose, mild side effects may be detected in some cattle. These include increased uneasiness, slight frothing, and milk let-down.

CONTRAINDICATIONS:
Estrumate should not be administered to a pregnant animal whose calf is not to be aborted.

PRECAUTIONS:
There is no effect on fertility following the single or double dosage regimens when breeding occurs at induced estrus or at 72 and 96 hours posttreatment. Conception rates may be lower than expected in those fixed time breeding programs which omit the second insemination (ie, the insemination at or near 96 hours). This is especially true if a fixed time insemination is used following a single Estrumate injection. As with all pharmaceutical products, careful techniques should be employed to decrease the possibility of postinsemination bacterial infection. Antibiotic therapy should be employed at the first sign of infection.

DOSAGE AND ADMINISTRATION:
2 mL of Estrumate (500 mcg of cloprostenol) should be administered by intramuscular injection for all indications in both beef and dairy cattle. Do not puncture stoppers more than 10 times.

WARNINGS:
Women of childbearing age, arithmetic, and persons with bronchial and other respiratory problems should exercise extreme caution when handling this product. In the early stages, women may be unaware of their pregnancies. Estrumate is readily absorbed through the skin and may cause abortion and/or bronchospasm. Direct contact with the skin should therefore be avoided. Accidental spillage on the skin should be washed off immediately with soap and water.

STORAGE CONDITIONS:
1. Protect from light.
2. Store in container.

HOW SUPPLIED:
20mL and 100mL multidose vials

CAUTION:
Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

Schering-Plough Animal Health
Made in Germany.

Copyright © 1999, 2006, Schering-Plough Animal Health corp., Summit, NJ 07901. All rights reserved. 105100 15 rev. 3/07

US 366/1
B-105100/15
USA007790IN v

556 Morris Avenue • Summit, NJ 07901 • merck-animal-health-usa.com • 800-521-5747
Copyright © 2011 Intervet Inc., a subsidiary of Merck & Co., Inc. All rights reserved. 7/11 BV-EST-43542

PROSTRAGLANDIN ANALOGUE FOR CATTLE
Equivalent to 250 mcg cloprostenol/mL

PREPARATION AND ADMINISTRATION:

ADMINISTRATION:

Estrumate® (cloprostenol sodium) is a synthetic prostaglandin analogue structurally related to prostaglandin F2 α (PGF2 α) of cattle. In normal, nonpregnant, and cycling animals, estrus is expected 2 to 5 days following injection, at which time animals may be inseminated. Treated cattle should be inseminated at the usual time following detection of estrus. If estrus detection is not desirable or possible, treated animals may be inseminated either once at about 72 hours or twice at about 72 and 96 hours following the second injection. Any controlled breeding program recommended should be completed by either:

- observing animals (especially during the third week after injection) and human mating any animals returning to estrus,
- or
- turning in clean-up bull(s) 5 to 7 days after the last injection of Estrumate to cover any animals returning to estrus.

RECOMMENDED USES:
- cows and heifers must be normal, nonpregnant, and cycling (rectal palpation should be performed);
- cattle must be in a fit and fertile breeding condition and on an adequate or increasing plane of nutrition;
- proper program planning and record keeping are essential;
- if artificial insemination is used, it must be performed by competent inseminators using high-quality sperm.

It is important to understand that Estrumate is effective only in animals with a mature corpus luteum (oxidation must have occurred at least 5 days prior to treatment). This must be considered when breeding is intended following a single Estrumate injection.

SAFETY AND TOXICITY:
At 50 and 100 times the recommended dose, mild side effects may be detected in some cattle. These include increased uneasiness, slight frothing, and milk let-down.

CONTRAINDICATIONS:
Estrumate should not be administered to a pregnant animal whose calf is not to be aborted.

PRECAUTIONS:
There is no effect on fertility following the single or double dosage regimens when breeding occurs at induced estrus or at 72 and 96 hours posttreatment. Conception rates may be lower than expected in those fixed time breeding programs which omit the second insemination (ie, the insemination at or near 96 hours). This is especially true if a fixed time insemination is used following a single Estrumate injection. As with all pharmaceutical products, careful techniques should be employed to decrease the possibility of postinsemination bacterial infection. Antibiotic therapy should be employed at the first sign of infection.

DOSAGE AND ADMINISTRATION:
2 mL of Estrumate (500 mcg of cloprostenol) should be administered by intramuscular injection for all indications in both beef and dairy cattle. Do not puncture stoppers more than 10 times.

WARNINGS:
Women of childbearing age, arithmetic, and persons with bronchial and other respiratory problems should exercise extreme caution when handling this product. In the early stages, women may be unaware of their pregnancies. Estrumate is readily absorbed through the skin and may cause abortion and/or bronchospasm. Direct contact with the skin should therefore be avoided. Accidental spillage on the skin should be washed off immediately with soap and water.

STORAGE CONDITIONS:
1. Protect from light.
2. Store in container.

HOW SUPPLIED:
20mL and 100mL multidose vials

CAUTION:
Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

Schering-Plough Animal Health
Made in Germany.

Copyright © 1999, 2006, Schering-Plough Animal Health corp., Summit, NJ 07901. All rights reserved. 105100 15 rev. 3/07

US 366/1
B-105100/15
USA007790IN v

556 Morris Avenue • Summit, NJ 07901 • merck-animal-health-usa.com • 800-521-5747
Copyright © 2011 Intervet Inc., a subsidiary of Merck & Co., Inc. All rights reserved. 7/11 BV-EST-43542