**THE RIGHT TREATMENT STARTS HERE.**

Administering the right treatment in the right way is essential. Before administering any treatment, check your dairy’s protocols. Which treatment is your dairy using?

**ROUTE: Base of ear ONLY, via routes shown below**

**PRE-SLAUGHTER WITHDRAWAL:** 13 days following the last dose
**TIME BEFORE BEING KILLED:** 13 days after the last dose

**MAXIMUM INJECTION:** 15 mL per injection site

**INDICATIONS:**
- Breeding or pregnant heifers
- Control of BRD in heifers
- BRD and foot rot in lactating cows
- BRD and pododermatitis in lactating cows
- Acute metritis in lactating cows

**ADMINISTRATION TIPS / CONSEJOS DE ADMINISTRACIÓN**
- **SUJETE:** Sujete al animal de manera adecuada.
- **RESTRAIN:** Guarde firmemente al animal de manera adecuada.
- **IDENTIFY:** Identifique el lugar de la inyección.
- **CLEAN:** Limpie la jeringa y una aguja limpias y use una nueva aguja.
- **RESTRAIN:** Sujete al animal de manera adecuada.

**EXCENEL RTU EZ INDICATIONS FOR USE, TREATMENT DURATION AND DOSAGE**

**INDICATIONS:**
- Acute metritis in lactating cows
- Acute respiratory disease (BRD) in feedlot cattle

**APPROVED DOSAGE:**
- 2 mL/100 lb. (4.4 mg CE/kg)

**PERIOD BEFORE BEING KILLED:**
- Zero days

**PRE-SLAUGHTER WITHDRAWAL:**
- Four days following the last dose

**INDICATIONS OF USE, DURATION OF TREATMENT AND DOSAGE OF EXCENEL RTU EZ**

**INDICATIONS:**
- BRD in dairy calves
- Foot rot in dairy cattle

**APPROVED DOSAGE:**
- 1.5 mL/100 lb.

**PERIOD BEFORE BEING KILLED:**
- Five days following the last dose

**PRE-SLAUGHTER WITHDRAWAL:**
- Zero days

**INDICATIONS OF USE, DURATION OF TREATMENT AND DOSAGE OF EXCENEL RTU EZ**

**INDICATIONS:**
- Acute respiratory disease in feedlot cattle

**APPROVED DOSAGE:**
- 1 mL/100 lb.

**PERIOD BEFORE BEING KILLED:**
- Three to five consecutive days

**PRE-SLAUGHTER WITHDRAWAL:**
- Zero days

**INDICATIONS OF USE, DURATION OF TREATMENT AND DOSAGE OF EXCENEL RTU EZ**

**INDICATIONS:**
- Acute respiratory disease in feedlot cattle

**APPROVED DOSAGE:**
- 1.2 mL/100 lb.

**PERIOD BEFORE BEING KILLED:**
- Three to five consecutive days

**PRE-SLAUGHTER WITHDRAWAL:**
- Zero days

**IMPORTANT SAFETY INFORMATION FOR EXCENEL RTU EZ:**
- People with known hypersensitivity to penicillin or cephalosporins should avoid exposure to EXCENEL RTU EZ. People with known hypersensitivity to penicillin or cephalosporins should avoid exposure to EXCENEL RTU EZ.

**INFORMATION DE SEGURIDAD IMPORTANTE PARA EXCENEL RTU EZ:**
- Los animales con una alergia conocida a la penicilina o las cefalosporinas deberán evitar la exposición a EXCENEL RTU EZ.

**INFORMATION DE SEGURIDAD IMPORTANTE PARA EXCENEL RTU EZ:**
- Los animales con una alergia conocida a la penicilina o las cefalosporinas deberán evitar la exposición a EXCENEL RTU EZ.

**FOR TECHNICAL SUPPORT, CALL 888-ZOETIS1.**
See product insert for more information about product use, treatment, and dosage. Before use, consult your dairy’s protocols. Which treatment is your dairy using?
The activity of ceftiofur has been demonstrated when each product was administered as EXCEDE Sterile Suspension at a dose rate of 3.0 mg CE/lb (6.6 mg CE/kg) BW. Injection sites were observed daily in growing cattle (8 cattle for each route) at the maximum volume of 15 mL. Injection site scores were normal for 32% (rostral), 46.9% (ventral), and 47.9% (opposite eye) of animals in the study. General practices. All animals had injection site swelling during the study; swelling resolved prior to end of the study. Normal restraint was adequate for 89.8% (ventral), 98% (rostral), and 100% (opposite eye) of animals in the study.

Normal restraint is considered adequate when animals are restrained securely with minimal stress to the animal. Animals are restrained securely in a way that allows them to be handled without injury to the operator. The restraint technique should not be painful for the animal, and animals should be able to move their head and neck freely. Normal restraint does not allow for the use of analgesics or sedatives, and should be used only when necessary to prevent injury to the operator or the animal. Normal restraint techniques vary depending on the animal species and the animal's size. Common techniques include using a halter or lead rope to control the animal's movement, and using a保定带 or restraining saddle to limit the animal's ability to move.

The material safety data sheet contains more detailed occupational exposure and handling information. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or online at www.fda.gov/animalvets/adversedrugexp.htm.

### Table 4: Back-transformed least squares (LS) means and 90% AUC0-LOQ - the area under the plasma concentration vs. time curve from the base of the ear.

<table>
<thead>
<tr>
<th>Compound</th>
<th>AUC0-LOQ µg/mL</th>
<th>Cmax µg/mL</th>
<th>tmax (h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceftiofur</td>
<td>2.0 ± 0.25</td>
<td>4.5</td>
<td>1.71 ± 0.706</td>
</tr>
<tr>
<td>Ceftiofur Sodium</td>
<td>1.0 ± 0.25</td>
<td>3.0</td>
<td>1.73 ± 0.489</td>
</tr>
<tr>
<td>Ceftiofur</td>
<td>0.25 ± 0.05</td>
<td>1.5</td>
<td>2.08 ± 0.670</td>
</tr>
</tbody>
</table>

### Table 5: Sensitivity of BRD and foot rot pathogens.

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>S</th>
<th>I</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mannheimia haemolytica</td>
<td>S</td>
<td>I</td>
<td>R</td>
</tr>
<tr>
<td>Histophilus somni</td>
<td>S</td>
<td>I</td>
<td>R</td>
</tr>
<tr>
<td>Pasteurella multocida</td>
<td>S</td>
<td>I</td>
<td>R</td>
</tr>
<tr>
<td>Salmonella</td>
<td>S</td>
<td>I</td>
<td>R</td>
</tr>
</tbody>
</table>

### Table 6: Sensitivity of BRD isolates.

<table>
<thead>
<tr>
<th>Strain</th>
<th>S</th>
<th>I</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strain A</td>
<td>S</td>
<td>I</td>
<td>R</td>
</tr>
<tr>
<td>Strain B</td>
<td>S</td>
<td>I</td>
<td>R</td>
</tr>
</tbody>
</table>

### Table 7: Sensitivity of foot rot isolates.

<table>
<thead>
<tr>
<th>Strain</th>
<th>S</th>
<th>I</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strain A</td>
<td>S</td>
<td>I</td>
<td>R</td>
</tr>
<tr>
<td>Strain B</td>
<td>S</td>
<td>I</td>
<td>R</td>
</tr>
</tbody>
</table>

**Not for use in calves to be processed for veal.**

**Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian. Federal Law prohibits extra-label use of this drug in cattle for disease prevention purposes; at any other time in food animals for animal health purposes.**

### Administration for the Base of the Ear

**Toward the Opposite Eye Technique**

The product is administered to the left or right base of the ear. The needle is inserted perpendicular to the plane of the skin and advanced into the ear to a depth of approximately 1 cm, or until the loose skin in the caudal aspect of the base of the ear is penetrated. The needle is then withdrawn, and the rubber stopper is removed from the needle hub. The rubber stopper is a sterile device designed to keep the needle hub closed during storage and transport. It is not intended to be used during injection. The needle is replaced in the needle hub, and the hub is attached to the syringe. The hub is then attached to the syringe, and the plunger is pushed to deliver the dose. The needle is then withdrawn and discarded. The plunger is then pushed to return the syringe to its original position. The hub is then attached to the syringe, and the plunger is pushed to deliver the dose. The needle is then withdrawn and discarded.

The product is administered to the left or right base of the ear. The needle is inserted perpendicular to the plane of the skin and advanced into the ear to a depth of approximately 1 cm, or until the loose skin in the caudal aspect of the base of the ear is penetrated. The needle is then withdrawn, and the rubber stopper is removed from the needle hub. The rubber stopper is a sterile device designed to keep the needle hub closed during storage and transport. It is not intended to be used during injection. The needle is replaced in the needle hub, and the hub is attached to the syringe. The hub is then attached to the syringe, and the plunger is pushed to deliver the dose. The needle is then withdrawn and discarded. The plunger is then pushed to return the syringe to its original position. The hub is then attached to the syringe, and the plunger is pushed to deliver the dose. The needle is then withdrawn and discarded.

The product is administered to the left or right base of the ear. The needle is inserted perpendicular to the plane of the skin and advanced into the ear to a depth of approximately 1 cm, or until the loose skin in the caudal aspect of the base of the ear is penetrated. The needle is then withdrawn, and the rubber stopper is removed from the needle hub. The rubber stopper is a sterile device designed to keep the needle hub closed during storage and transport. It is not intended to be used during injection. The needle is replaced in the needle hub, and the hub is attached to the syringe. The hub is then attached to the syringe, and the plunger is pushed to deliver the dose. The needle is then withdrawn and discarded. The plunger is then pushed to return the syringe to its original position. The hub is then attached to the syringe, and the plunger is pushed to deliver the dose. The needle is then withdrawn and discarded.

The product is administered to the left or right base of the ear. The needle is inserted perpendicular to the plane of the skin and advanced into the ear to a depth of approximately 1 cm, or until the loose skin in the caudal aspect of the base of the ear is penetrated. The needle is then withdrawn, and the rubber stopper is removed from the needle hub. The rubber stopper is a sterile device designed to keep the needle hub closed during storage and transport. It is not intended to be used during injection. The needle is replaced in the needle hub, and the hub is attached to the syringe. The hub is then attached to the syringe, and the plunger is pushed to deliver the dose. The needle is then withdrawn and discarded. The plunger is then pushed to return the syringe to its original position. The hub is then attached to the syringe, and the plunger is pushed to deliver the dose. The needle is then withdrawn and discarded.

### Reference


### Figures

- Figure 1: Diagram of the chemical structure of Ceftiofur Hydrochloride.
- Figure 2: Graph showing the plasma concentration vs. time curve for ceftiofur administered as EXCEDE Sterile Suspension.
- Figure 3: Graph showing the plasma concentration vs. time curve for ceftiofur administered as EXCEDE RTU Sterile Suspension.
- Figure 4: Graph showing the plasma concentration vs. time curve for ceftiofur administered as EXCEDE EZ RTU Sterile Suspension.
- Figure 5: Graph showing the plasma concentration vs. time curve for ceftiofur administered as EXCEDE RTU EZ Sterile Suspension.
- Figure 6: Graph showing the plasma concentration vs. time curve for ceftiofur administered as EXCEDE RTU EZ Sterile Suspension.
- Figure 7: Diagram showing the technique for administering EXCEDE Sterile Suspension subcutaneously in the posterior ear of cattle.