### Which Products Make Sense for Your Bottom Line? You Be the Judge.

#### MILKOUT PERIODS OF SELECT MASTITIS TUBE TREATMENTS

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Number of tubes</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Day 6</th>
<th>Day 7</th>
<th>Day 8</th>
<th>Cure Rate</th>
<th>Total Treatment Cost (Estimated on September 2006)</th>
<th>Estimated Treatment Cost per Cure ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amani-Mast</td>
<td>10</td>
<td>0</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>62%</td>
<td>$45.60</td>
<td>$7.60</td>
</tr>
<tr>
<td>Dariclox</td>
<td>10</td>
<td>0</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>68%</td>
<td>$56.66</td>
<td>$9.44</td>
</tr>
<tr>
<td>Cefa-Lak</td>
<td>10</td>
<td>0</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>68%</td>
<td>$56.66</td>
<td>$9.44</td>
</tr>
<tr>
<td>Spectramast</td>
<td>10</td>
<td>0</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>68%</td>
<td>$56.66</td>
<td>$9.44</td>
</tr>
</tbody>
</table>

#### TOTAL TREATMENT COST – MAKE YOUR OWN CALCULATION

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Estimated Treatment Cost ($)</th>
<th>Cost of Milk Withheld ($)</th>
<th>Total Treatment Cost ($)</th>
<th>Cure Rate</th>
<th>Estimated Treatment Cost per Cure ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amani-Mast</td>
<td>$68.00</td>
<td>$10.00</td>
<td>$78.00</td>
<td>62%</td>
<td>$12.50</td>
</tr>
<tr>
<td>Dariclox</td>
<td>$81.00</td>
<td>$10.00</td>
<td>$91.00</td>
<td>68%</td>
<td>$13.50</td>
</tr>
<tr>
<td>Cefa-Lak</td>
<td>$81.00</td>
<td>$10.00</td>
<td>$91.00</td>
<td>68%</td>
<td>$13.50</td>
</tr>
<tr>
<td>Spectramast</td>
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<td>$10.00</td>
<td>$91.00</td>
<td>68%</td>
<td>$13.50</td>
</tr>
</tbody>
</table>

#### TOTAL TREATMENT COST (Estimated on September 2006)*

<table>
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<th>Cost of Milk Withheld ($)</th>
<th>Total Treatment Cost ($)</th>
<th>Cure Rate</th>
<th>Estimated Treatment Cost per Cure ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amani-Mast</td>
<td>$73.00</td>
<td>$10.00</td>
<td>$83.00</td>
<td>72%</td>
<td>$12.14</td>
</tr>
<tr>
<td>Dariclox</td>
<td>$87.24</td>
<td>$10.00</td>
<td>$97.24</td>
<td>72%</td>
<td>$16.21</td>
</tr>
<tr>
<td>Cefa-Lak</td>
<td>$87.24</td>
<td>$10.00</td>
<td>$97.24</td>
<td>72%</td>
<td>$16.21</td>
</tr>
<tr>
<td>Spectramast</td>
<td>$87.24</td>
<td>$10.00</td>
<td>$97.24</td>
<td>72%</td>
<td>$16.21</td>
</tr>
</tbody>
</table>

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**Note:** *Estimated based on the estimated treatment cost and cure rate provided.*

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#### Mastitis Tubes

**Tube tip length, antibiotic efficacy, and milk withhold period impact your bottom line.**

**Amoxi-Mast (amoxicillin trihydrate)**

**Indications:** For the treatment of clinical and subclinical mastitis in lactating cows.

**Dosage and Administration:** Amoxi-Mast is specially prepared for the treatment of mastitis. It is a broad-spectrum antibiotic which is effective against common infectious mastitis pathogens, namely Staphylococcus aureus, Escherichia coli, and Enterobacter are resistant. The clinical or subclinical significance of these resistant staphylococci is known.

**Side Effects and Adverse Reactions:** Amoxi-Mast has the potential for producing allergic reactions. Such reactions may include urticaria, itching, and anaphylactic shock. It is a semisynthetic penicillin derived from thienamycins and has a very low potential for producing allergy reactions.

**Precautions:** Amoxi-Mast is contraindicated in patients with a known allergy to amoxicillin. It is not recommended for use in patients with a known allergy to amoxicillin.

**Contraindications:** Amoxi-Mast is contraindicated in patients with a known allergy to amoxicillin. It is not recommended for use in patients with a known allergy to amoxicillin.

**Adverse Reactions:** Amoxi-Mast is contraindicated in patients with a known allergy to amoxicillin. It is not recommended for use in patients with a known allergy to amoxicillin.

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**Printed in USA.**

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**Dariclox (amoxicillin)**

**Indications:** For the treatment of clinical and subclinical mastitis in lactating cows.

**Dosage and Administration:** Dariclox is contraindicated in patients with a known allergy to amoxicillin. It is not recommended for use in patients with a known allergy to amoxicillin.

**Side Effects and Adverse Reactions:** Dariclox has the potential for producing allergic reactions. Such reactions may include urticaria, itching, and anaphylactic shock. It is a semisynthetic penicillin derived from thienamycins and has a very low potential for producing allergy reactions.

**Precautions:** Dariclox is contraindicated in patients with a known allergy to amoxicillin. It is not recommended for use in patients with a known allergy to amoxicillin.

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**Adverse Reactions:** Dariclox is contraindicated in patients with a known allergy to amoxicillin. It is not recommended for use in patients with a known allergy to amoxicillin.

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**Spectramast**

**Indications:** For the treatment of clinical and subclinical mastitis in lactating cows.

**Dosage and Administration:** Spectramast is contraindicated in patients with a known allergy to amoxicillin. It is not recommended for use in patients with a known allergy to amoxicillin.

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The Mastitis Infection Process

Mastitis is an inflammatory response of the mammary gland. Keratin is a sticky substance that is secreted into the gland. Mastitis is an inflammatory response of the mammary gland. The infection process begins when bacteria are introduced into the teat cistern, which acts as a reservoir for bacteria. Insertion of a mastitis tube tip through the canal and into the teat cistern is a major compromise of the teat canal integrity. When the tip is inserted, it may push bits of keratin with bacteria into the teat cistern. This may result in a new case of mastitis or may push bits of keratin with bacteria into the teat cistern by full insertion, which can cause damage to teat end tissues and reduce new infections by 50%.

When teat ends are disinfected before intramammary treatment, many bacteria are killed, but many are not. When a mastitis tube tip is inserted through the "natural" teat end, surviving bacteria may be carried along into the teat cistern. Partial insertion or partial insertion of the mastitis tube tip in dry cows. The National Mastitis Council Guidelines state that insertion of only 1/8 inch into the teat canal avoids mastitis treatment of cows.

The trend toward a higher cure rate with partial insertion may be due to placing the antibiotic near the source of bacterial colonization, the teat canal. The introduction of new infections was directly related to method of treatment, as shown in Figure 5. A study was conducted to evaluate new infection rates and cure rates from full insertion or partial insertion of the mastitis tube tip in dry cows.

NEW INFECTION AND CURE RATES WITH PARTIAL VS. FULL INSERTION OF MASTITIS TUBE TIP IN TEAT CANAL

- **Percent infections by depth of inoculation**
  - **Percent infections**
  - Depth of Inoculation
  - Percent Infections
  - 0
  - 20
  - 40
  - 60
  - 80
  - 100
  - 0
  - 20
  - 40
  - 60
  - 80
  - 100
  - **Partial**
  - **Full**
  - **New Infections**
  - **Cures**
  - **4 mm**
  - **3 mm**
  - **3 mm**
  - **57.3**
  - **9.9**
  - **34.1**
  - **5.2**
  - **4.1**
  - **12.5**
  - **18.75**
  - **62.5**

**Figure 3. Partial insertion and bacteria in teat canal**

**Figure 4. Bacteria being pushed into teat cistern by full insertion**

**Figure 5. Effect of partial or full insertion**

- **A study was conducted to evaluate new infection rates and cure rates from full insertion or partial insertion of the mastitis tube tip in dry cows.**
- **The trend toward a higher cure rate with partial insertion may be due to placing the antibiotic near the source of bacterial colonization, the teat canal.**
- **The reduction in new infections was directly related to method of treatment, as shown in Figure 5.**
- **A study was conducted to evaluate new infection rates and cure rates from full insertion or partial insertion of the mastitis tube tip in dry cows.**
- **The trend toward a higher cure rate with partial insertion may be due to placing the antibiotic near the source of bacterial colonization, the teat canal.**
- **The reduction in new infections was directly related to method of treatment, as shown in Figure 5.**

**Table 1: Comparison of seven antibiotic treatments with no treatment for bacteriological efficacy against bovine mastitis pathogens.**

- **Highly effective against mastitis caused by S. aureus.**
- **Quickly achieves high therapeutic levels, with proven antibacterial action for rapid effect.**
- **One of the highest cure rates for S. agalactiae and one of the shortest milk withdrawal periods—48 hours.**

**With Amoxi-Mast or Dariclox:**

- **You can treat with confidence in outcomes.**
- **You can achieve more cures, which means more milk.**
- **You can cure subclinical cases, which helps limit the circulation of mastitis in the herd.**
- **You can have efficacious mastitis treatment with maximum cost-effectiveness.**

These products have the potential for producing allergic reactions.

**Amoxi-Mast® (amoxicillin)**

- **Available in short-tip tubes.**
- **Demonstrated 86% cure rate for Strep. agalactiae, the target of lactating cow therapy in the U.S.**
- **Broad-spectrum therapy against the major mastitis-causing agents S. agalactiae and penicillin-resistant S. aureus.**
- **Consistently associated with increased cure rates for subclinical mastitis.**
- **Economical—60-hour milk withdrawal.**

**Dariclox® (sodium cloxacinil)**

- **Available in short-tip tubes.**
- **Demonstrated 77% cure rate for Strep. agalactiae in study of antibiotic treatments.**
- **Highly effective against mastitis caused by S. aureus.**
- **Quickly achieves high therapeutic levels, with proven antibacterial action for rapid effect.**
- **One of the highest cure rates for S. agalactiae and one of the shortest milk withdrawal periods—48 hours.**

**With Amoxi-Mast or Dariclox:**

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