TREAT HEAT STRESS FROM THE INSIDE

DON’T LET IT BURN AWAY YOUR SUMMER MILK CHECK

USE BOVINE ACCELLYTE II ALONG WITH TRI-MIC 1:50 TO RELIEVE DEHYDRATION AND PROMOTE FEED INTAKES.

**Bovine Accellyte II**
- A unique electrolyte
- Use to pre-hydrate (before stress) or rehydrate (after stress) in cattle.
- Used as a drench, add to stock tanks or dry mix into feeds
- Cows stay hydrated and on feed during periods of stress
- Reduced milk loss, panting and other heat stress related symptoms
- Feed six pounds per 100 head per day

**Tri-Mic 1:50**
- Direct Fed Microbial
- Combination of beneficial rumen specific microbes
- Improves digestive performance
- Improves feed utilization
- Maximizes production and reproductive health
- Apply in TMR or top dress rations
- Feed one pound per 50 head per day for group or herd application

Bovine Accellyte II
- 30487 25 lbs.
- 30250 4 lbs.
- 30251 20 lbs.

Tri-Mic 1.50
- 30487 25 lbs.
- 30250 4 lbs.
- 30251 20 lbs.
DEHYDRATION OF CATTLE may occur from a multitude of challenges including shipping stress, movement, heat stress, calving, water quality and availability, ration changes, and stress from medical treatments and vaccinations.

WATER AS A NUTRIENT FOR DAIRY CATTLE
Water is often overlooked as an important component of the dairy ration. A cow producing 80 pounds of milk requires about 40 gallons of water per day. Reduced water intakes can affect milk production and growth and can cause health problems. Free access to water promotes good rumen function, and increases feed intake, digestion and nutrient absorption.

IT’S NEVER TOO SOON TO FOCUS ON HEAT STRESS
Heat stress can be one of the most costly events on the farm during the summer months. The following are a few key points to remember—

• Only 10 to 20 percent of inseminations result in pregnancies when cows are under heat stress.
• The effect of heat stress on cows can depress the cow’s immune system and high heat and humidity provide a great environment for bacteria.
• Temperature levels that may be comfortable to people can be stressful on high-producing cattle. Ideal temperatures for a dairy cow are between 41°F and 77°F.
• One of the most commonly used methods to monitor heat stress is to use the temperature-humidity index (THI). THI is a calculation resulting from the temperature and relative humidity. Table 1 lists symptoms at different levels of THI. Table 2 shows the relationship between THI and heat and humidity.

FACTORS TO REDUCE HEAT STRESS
• At least one water source is needed for every twenty cows at all times. Keeping the water clean and fresh is also important. Cattle will drink more water when a cool, clean source is available.
• Heat stress depresses feed intake, so it is important to adjust the ration to meet the same requirements.
• Increasing nutrient density, such as feeding higher quality forage, feeding more grain and adding supplemental fat can help the cow meet her needs on less feed.
• Direct-fed microbial and yeast products can also aid in increasing feed intake, especially through periods of heat stress. Mineral requirements will also change during periods of hot weather.
• Lower intakes and a higher concentrated diet will also increase the need for buffer to be added to the diet to maintain rumen pH.
• Ventilation must be designed to exchange the warm air around the cows with cooler air from outside the barn. A sprinkler system can also reduce heat stress if set up correctly.

At the end of the day, the key goal is help the cow maintain production and stay healthy throughout the year. The only way to do this is by keeping the cow as consistent as possible. Controlling body temperature with adequate facilities, maintaining dry matter intake, and meeting nutritional requirements (water, energy, protein and mineral) regardless of intake, will all help keep cows productive and healthy.

Table 1. Temperature-Humidity Index (THI) Impact on Dairy Cattle

<table>
<thead>
<tr>
<th>THI</th>
<th>Symptoms</th>
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<tr>
<td>72</td>
<td>Cattle start to feel heat stress. Reduced feed intake and increased respiration rate may occur.</td>
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<tr>
<td>77</td>
<td>Begin losing milk production. Symptoms become more apparent.</td>
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<td>80</td>
<td>Rapid shallow breathing, profuse sweating and a 10% decrease in milk production.</td>
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<tr>
<td>90</td>
<td>Severe loss in milk yield (&gt;25%), decreased feed intake, and panting. Risk of death if ill or calving.</td>
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Table 2. Temperature Humidity Index (THI)1 for Dairy Cows. Modified from Dr. Frank Wierama (1990), Department of Agricultural Engineering, The University of Arizona, Tucson, Arizona.

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Mild Stress | Medium Stress | Severe Stress