



HEAT BECOMING A STRESS



TRANSITION COWS

HEAT STRESS SIGNS

- **Decreased dry matter intake**
- **Increased rate of feed passage**
 - Inconsistent manure
 - Acidosis
 - Increased lameness
 - Lower milk solids
- **Increased respiration rate and panting = mineral losses**
- **Reduced activity but less time spent lying down**
- **Increased water consumption**
- **Increased metabolic disease risk**
 - Respiratory alkalosis
 - Metabolic acidosis
- **Altered placental function**
- **Decreased mammary tissue growth rate**
- **Lower circulating immunoglobulin level**
- **-4.5 kg birth weight reduction**

HOUSING AND ENVIRONMENT

- **Keep stocking density in close-up pens below 80%.**
- **Provide at least 12–14 m²/cow in the straw yard**
- **Feed troughs should provide 75 cm/cow**
- **Ensure free choice access to clean water with space for 10–15 cm/cow**
- **Increase ventilation**
 - Promote natural ventilation
 - Fans
 - Less humidity and drier bedding = Less mastitis, less digital dermatitis
- **Water cooling — cycles of soaking (30–40 min) with large water droplets followed by drying with fans (4x)**

FEEDING AND NUTRITION

- **Maximise rumen function (good basal ration and addition of live yeast)**
 - **Select higher quality forages**
 - **Partially replace forage with high-fermentable fibre by-products (beet pulp, soy hulls)**
 - **Use more digestible feed ingredients (lower heat production during digestion)**
 - **Fresh, palatable, high-quality feed should always be available**
 - **Ensure uniformity of mixed and delivered rations**
 - **Minimise feed sorting (reduce SARA risk)**
 - **Shift feeding times to cooler parts of the day (evening/night)**
 - **Choose right source of carbohydrates:**
 - Corn grain and fermentable starch
 - Sugar 6–7% DM
 - Glucose-formed products (MPG, glycerin, maltodextrins)
 - **Consider adding dietary fat:**
 - Fractionated (milk fat precursor)
 - Preformed fatty acids (C16:0)
 - Omega 3 and 6 fatty acids
 - **Ensure ammonia supply for rumen bacteria to satisfy their requirements**
 - **Maintain rumen NH₃ levels throughout the day to ensure optimal supply to the rumen microbes**
 - **Adapt mineral supplementation to satisfy higher requirements (Potassium salt +50%, Sodium salt +150%, Magnesium salt +45%, Calcium salt +25%)**
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- **Feed Yea-Sacc® to help stabilise the rumen environment and optimise function**
 - **Add Bioplex® for better mineral availability**
 - **Add Sel-Plex® for immunity support**

