

# Hot & Humid II: Calves

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Calves are susceptible to heat stress as well, though it might not be as apparent as it is with older cattle. Higher temperatures can lead to decreased feed efficiency and average daily gain. Calves can also experience a lowered immune status due to the added stress of hot weather. While calves are better at coping with the heat compared to adult cattle, efforts still need to be made to alleviate heat stress.

Signs of heat stress in calves can be identified by increased body temperatures, increased respiration rates, reduced feed intake, and increased morbidity. The temperature-humidity index, or THI, can be used to identify potential heat stress based on the compound effect of ambient temperature and relative humidity. The THI essentially indicates how hot the environment “feels” as increased temperature and increased humidity make evaporative cooling from panting and sweating more difficult. Calves do have a thermal neutral zone higher than those of lactating cows, but they still begin to feel heat stress at relatively modest environmental temperatures. As a rule of thumb, when the THI is greater than 77, strategies for alleviating heat stress in calves should be used.

Some suggestions for reducing heat stress in calves are:

1. **Water.** Calves should have access to water at all times but in the summer it is even more critical to prevent dehydration. Proper hydration helps to ensure that calves are expelling heat by panting and sweating. For scouring calves, early fluid intervention is imperative during hot weather.
2. **Feed.** Calves should have a continual supply of fresh calf starter. Be sure to clean uneaten starter out of buckets on a daily basis to prevent the starter from becoming moldy and reducing intake.
3. **Shade.** Keep calves in the shade. Shade cloths positioned above hutches can reduce the temperature within the hutch by 4°F. Calves housed in barns should be able to escape direct sunlight coming in from open doors and windows during the day. Solar radiation can influence how hot the environment “feels”.
4. **Ventilation.** Keep air moving through the calf’s environment. Ventilation is critical in calf facilities. In calf barns, utilizing fans and keeping side curtains open will help to keep air moving. Propping hutches up by placing a block under the back wall will improve airflow, reduce temperature and carbon dioxide levels inside the hutch, and decrease airborne bacteria as well.
5. **Bedding.** Consider changing your bedding for summer months to sand. As it is a poor insulator, sand will draw heat away from the calf without retaining heat itself.
6. **Handling.** Work calves in the morning before the temperature starts to rise. This will make life easier for calf and laborer alike.