

Fact sheet heat stress in dairy cows

Dairy cows run a greater risk of suffering from heat stress at outside temperatures higher than 20°C with high humidity. Heat stress impacts the activity levels, milk production and health of cows.

The optimal environmental temperature - the comfort zone - for dairy cattle is between -5 °C and 18 °C. A cow already starts to suffer from the heat at a temperature of 20 °C in combination with high humidity levels of 60- 80%.

Heat stress results in general discomfort for cows, but manifests mainly as a reduced feed intake (and lower milk production), and udder and hoof problems. When suffering from extreme heat stress, the cows will also start to pant.

Heat stress is caused by a combination of a high temperature and high humidity. The figure below shows the stress levels caused by the various combinations of temperature and humidity.

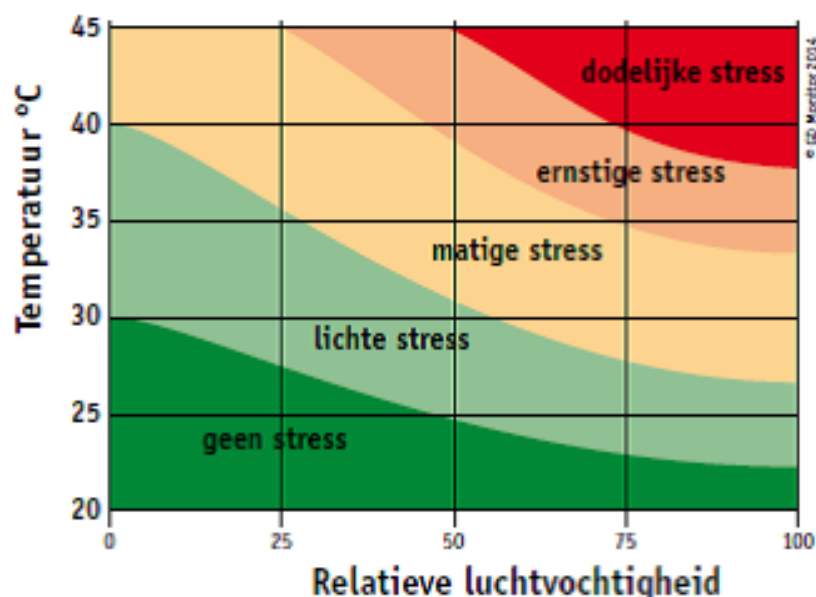


Figure 1 Heat stress depending on temperature and humidity

Preventing heat stress

Some important tips to prevent heat stress:

- Firstly ensure a sufficient supply of fresh, clean and palatable drinking water.
- Make sure the water is not too cold. The cows must be able to drink enough in a relatively short time. Water of 20 °C is better than chilled water.
- Ensure the barn is well ventilated, use (mobile) fans if necessary.
- Avoid direct sunlight entering the barn. Allow light to enter through the side walls as much as possible.
- Using water misters, always used in combination with adequate ventilation, will help reduce the temperature in the barn.
- Keep the cows indoors in the day time and let them graze outdoors at night.
- Ensure there is plenty of shade in the pasture.

(source: GD Monitor, 2004).