

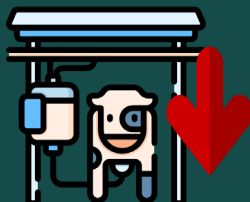
Warm Milk: The Effect of Excessive Heat on Estrous Behaviour in Dairy Cows

Heat stress can be very harmful for dairy cows [1]. It can also decrease milk supply, conception rates, and estrous behaviour [1]. Estrous behaviour is one of the best indicators that a female cow is within her fertile window so maintaining it is crucial [1].

Effects of Heat Stress



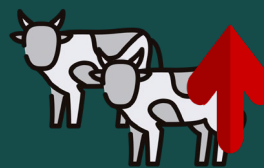
Decreased Estrous Behaviour [1]



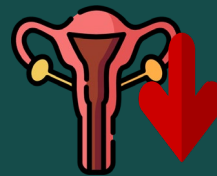
Decreased Milk Production [1]



Dominance of Smaller Oocytes [1]



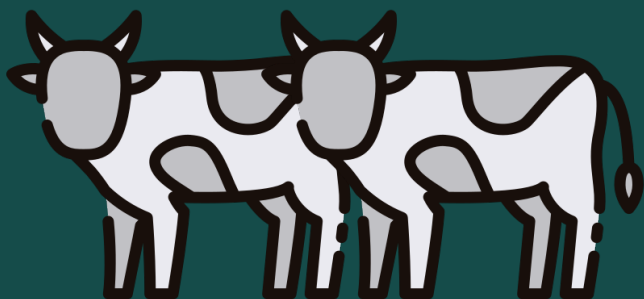
Increase in Twinning Events [1]



Decreased Blood Flow to Uterus [1]

Typical Estrous Behaviour

Estrous behaviour can include female cows mounting other cows, receiving a mount from a female cow, resting their chin on the rump of another cow, and sniffing or licking the rump of another cow [2].



Atypical Estrous Behaviour

Under heat stress, estrous behaviour can look much different or be completely absent [3]. Mounting behaviours are seen much less and there is an increase in chin resting, sniffing, and licking [4]. During times of high temperature and heat stress, estrous behaviour is often expressed more often during the night [4].



What Can You Do?

There are many methods that farmers can use to reduce heat stress or increase reproductive success and they range from simple, low-cost options to more complex and expensive. With so many options it can be easy to find something that works for you.

Low-Cost

High-Cost



Monitor at Night [1]



Provide Shade [1]



Sprinkle with Water [1]



Automated Cooling System [1]



Use AI Monitoring Systems [1]



Use IVF or Embryo Transfer [1]

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- [4] Pennington, J.A., Albright, J.L., Diekman, M.A., & Callahan, C.J. (1985). Sexual activity of Holstein cows: Seasonal effects. *Journal of Dairy Science*, 68(11), 3023-3030.
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