

Negative Impacts of Summer Heat on Dairy Cow Reproduction



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From the Dairy Cattle Reproduction Council edited by George Heersche, Jr.

A host of research results show heat stress drags down dairy cow reproductive performance.

For example:

- When rectal temperatures increased by 1.8 degrees F 12 hours after insemination, pregnancy rates decreased by 16%.
- An increase in uterine temperature of 0.9 degrees F on the day of or the day after insemination resulted in decreased conception rates of 13% and 7%, respectively.
- Prolonged heat stress increases estrous cycle length and decreases duration of estrus.
- A decrease in the frequency of the pulsed release of luteinizing hormone on day five of the estrous cycle was observed in heat-stressed cows compared to cooled cows.
- Fetal growth is negatively affected due to decreased uterine blood supply and an insufficiency of maternal nutrients provided by the placenta.