

Heat, Humidity, and Dairy Cattle Reproduction

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Dairy cattle reproductive performance suffers when cows are stressed by heat and humidity. The two largest impacts of heat-humidity stress are decreased estrus detection efficiency and increased embryo loss during the first three days after breeding. Cows are not as active when they are hot. They mount fewer times when in estrus which makes it harder for us to catch them in standing heat. Heat-humidity stress does not decrease the rate of fertilization after cows are inseminated. However, heat-humidity stress has a large negative impact on development of the embryo during the first three days after fertilization.

Keeping cows as cool as possible in the summer will put more milk in the tank and result in fewer trips over time to the semen tank. We should use shade, water and ventilation to cool cows at the feed bunk and in the holding pen, and use shade and ventilation to cool cows where they rest. Providing plenty of cool fresh water for drinking 24/7 is mandatory. We also should avoid overcrowding cows and make sure shade, water and feed are in close proximity so cows can get to all three with a minimum amount of effort. Also, work with your nutritionist to make the appropriate adjustments in the ration during hot weather.

Turning in the bull is not the solution to the summer fertility problem. Bulls are also subject to heat stress. They are less active and have lower quality semen when they are hot. To add insult to injury exposure of temperatures over 85 degrees for two or three days can significantly reduce semen quality for the following four to five weeks.