Bottom Line of Nutrition: Dairy

boost cows’ resting time

Rumination
There is a strong biological relationship between resting and ruminating, with more than 90% of rumination occurring while cows are recumbent under comfortable conditions (Krawczel et al., 2012). Heat stress abatement, therefore, boosts rumination as it enhances lying time. In fact, researchers in Italy observed a negative relationship between daily maximum THI and rumination time (Soriani et al., 2013). Rumination time is also negatively related to breathing rate, which increases during heat stress.

At the Miner Institute, my colleagues and I have observed a difference of approximately one hour per day in rumination time for cows that were exposed to minimal heat stress abatement (fans only over the stalls) versus fans and sprinklers over the feed bunk and the freestalls (Grant and Dann, 2015).

The Bottom Line
We know that cows become heat stressed at a THI of only 68, with associated reductions in resting and rumination time, feed intake and milk production. As the cow’s core body temperature rises, she stands in an effort to speed cooling — and she’s not likely to lie down again until her temperature comes down.

Resting is a valuable cow behavior, so dairy producers must do an effective job of cooling a cow to get her into the stall and lying down to avoid productive and health problems associated with excessive standing time.

The latest research reveals that the quickest way to get a heat-stressed cow to lie down is to reduce her body temperature.

References


Income over feed cost increases when balancing for amino acids

Properly balancing your herd’s amino acids allows reduced protein levels to be fed, supports milk production, and decreases nitrogen excretion.

AjiPro®-L use when balancing the amino acid levels is a Best Practice. AjiPro®-L is:
- The most heavily researched rumen protected lysine; scientifically proven by universities and research institutes
- Highly bypassable (80% rumen bypass)
- Highly digestible (62.5% intestinal digestibility)
- Highly bioavailable (50%)
- Stable in TMRs and premixes