

## **Pay Attention to Cow Daily Resting Time**

Dr. Donald E. Pritchard  
NCSU Extension Dairy Specialist

Researchers and many dairy consultants have been advising producers to be sure their cows have adequate resting time each day. The term “adequate” varies somewhat between advisors, but most would suggest that at least 12 hours are desired for proper cow health and maximum milk production. Many factors influence a cow’s ability and desire to lie down and rest. Among them are the design and comfort of the free stalls, the weather conditions, and the time required for the many routine activities a cow is involved in each day, e.g. milking, eating, drinking, etc., for which she must stand. Reports in recent issues of the Journal of Dairy Science have discussed other factors that affect the number of hours each day that cows will rest.

Wisconsin researchers studied the effects of different climatic conditions on cow lying time. They varied the temperature-humidity index (THI) from 56.2 to 73.8 in the pens which housed the cows, and found that the mean lying time decreased from 10.9 to 7.9 hours per day as the THI increased. Several researchers have shown that a THI of 72 or greater affects production, reproduction, and bovine physiology. The researchers noted that even the 10.9 hours was an inadequate amount of daily resting time, and was perhaps due to the location of the cooling fans and misters, the design of the free stalls, and the lameness status of the cows (especially towards the end of the summer season). As the THI increased and the cows spent less time lying in the stalls and more time standing, there was an increased risk factor for claw horn lesion development. At least in Wisconsin, the researchers have observed an increased incidence of cows with locomotion problems at the end of summer, a condition that could be associated with the cows standing more hours during the summer in an attempt to stay cool. Therefore, from their studies the researchers suggest that producers use more aggressive heat abatement strategies that are implemented/activated when the air temperature reaches around 70°F. Improving free stall comfort, properly locating fans and misters to cool cows, and minimizing the time cows are required to stand (e.g. in the parlor holding pen) are practices to consider.

Another group of researchers in British Columbia, Canada has reported on the influence of free stall overstocking rates on the amount of time daily that cows lie in stalls. They studied the overstocking rates of 109, 120, 133, and 150%. They also looked at the effect of the overstocking rates on which stalls (location in a row) got used most, and how much displacement activity occurred when there were more cows than stalls in the pen. They found that the hours spent daily lying in the stalls decreased from 12.9 at a 100% stocking rate to 11.5 and 11.2 hours, respectively, at 133 and 150% overstocking rate. These lower resting time values are less than the recommended minimum of 12 hours/day, and thus suggest that about 120% is the maximum overstocking rate that should be used. The researchers also found that cows kept in overstocked conditions were more likely to compete for stalls by lying down more quickly after milking, thereby not standing to eat fresh feed and have time for the teat sphincter muscles to close after each milking. The less desirable stalls were also used more per day as the overstocking rate increased.

These two reports support previous studies that show cows need at least 12 hours of resting time a day. Heat abatement practices, claw health influencing factors, and overstocking rates are among the management practices that producers should review and perhaps change to improve their animals’ performance and health.