

Comfortable Dairy Cows are More Profitable for their Owners



By Donna M. Amaral-Phillips

Comfortable dairy cows give more milk and, consequently, make more profit for their owners. As profit margins are stretched thinner with higher feed, fuel, and fertilizer costs, small changes in management practices that improve the comfort of a cow's environment can help improve your bottom line. Often times, improvements in managing cow comfort involve little or no capital outlay but result in improved profits for the dairy operation.

Reduce Heat Stress

First and foremost, your facilities need to be managed to decrease the effects of heat stress. Cattle are most comfortable when temperatures outside are between 40 and 70°F. Often times spring time temperatures are in the middle 70's and we need to realize that these cows are under mild heat stress. If we do not intervene, these cows will eat less and this can result in a less milk production. Before leaving to complete other chores in the morning, fans in the freestall barns should be turned on to help cattle cope with this increased heat load. As the humidity increases, cattle are under more heat stress at a given temperature.

As the temperature and humidity outside increase, the use of intermittent sprinklers to completely wet the hair coat of cows combined with sufficient air movement from fans can help cool cows. These systems allow for evaporative cooling of cows and should be used at the feed bunk and in the holding pen. In addition, sufficient fans should be located throughout the barn (over freestalls) for adequate air movement. Uncovered holding pens should be covered with 80% shade cloth to decrease the heat load of cows while they are waiting to be milked. Placing smaller groups of cows at a time in the holding pen also can help decrease heat stress on cows since they spend less time waiting to be milked. Additional management practices such as feeding cows in the cooler parts of the day, feeding more feed at night versus during the day, and mixing feed at least twice daily to prevent feed from heating in the feedbunk can help cows better cope with higher temperatures and humidity.

Besides adapting management practices to decrease heat stress on the milking herd, we cannot forget the dry cows, heifers and baby calves. Heat stress on dry cows can decrease milk production and reproductive performance in the upcoming lactation, as well as future production

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of their fetus. In addition, calf hutches should be shaded either by trees or with shade cloth. Research studies have shown that calves raised in shaded hutches have better immunity and can better fight off common calf diseases.

Freestall Maintenance

High producing dairy cows spend over 12 hours a day laying down and resting. Part of this time is spent ruminating. Rumination or cud chewing is important in buffering the rumen contents and helps improve the efficient production of nutrients the cow uses to make milk. Freestall maintenance is important to ensure cows spend an adequate amount of time resting and thus “making milk”. Also, increased the amount of time cows rest versus perching (rear legs in alley behind the stall with front legs in the stall) can decrease the incidence of lameness. Maintaining a comfortable surface in freestalls should always be a high priority. Adequate and clean bedding should be maintained in stalls to encourage cows to lie down and prevent hock and leg sores and lameness. Mattresses should be bedded with three inches of sawdust or other bedding material.

By spending a few minutes to improve cow comfort, your cows will be healthier, produce more milk, and potentially generate more profit for you, their owners.