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NEWS RELEASE

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KEEPING DAIRY COWS COMFORTABLE AND COOL TO REDUCE HEAT STRESS

The longer days, sun shining, and humid weather are reminding us that summer is here and heat stress in dairy cattle is imminent. Ashley Olson, Vernon County UW Extension Agriculture Educator, provides the following information on management heat stress for dairy cattle.

Visual signs of heat stress can include decreased feed intake and milk production, lethargy, more rapid shallow breathing, panting with the tongue hanging out, and excessive sweating. Non-visual signs include higher body temperatures and reduced fertility. A dairy cow's normal body temperature is 101.5 degrees Fahrenheit. The ideal air temperature for a dairy cow is between 25-65 degrees Fahrenheit. Once the temperature gets above 80 degrees Fahrenheit signs of heat stress become more obvious as cows reduce feed intake which impacts milk production. The hotter it gets the greater the impact on decreased milk production. Besides air temperature, humidity also plays a role in heat stress.

The impacts of heat stress can be felt long after the heat of summer is over, so it is important as a producer to reduce heat stress in your dairy cattle. One of the most important factors in reducing heat stress and keeping cows cool and comfortable is to provide adequate water for them to drink. Having one waterer, with adequate capacity, per 15-20 head is recommended, and have it located near feeding areas if possible. Water is consumed throughout the day and is generally associated with feeding or milking. Cows may consume 30 to 50 percent of their daily water intake within an hour after milking. Another factor to consider is adequate shade. If dairy cows are on pasture, trees make a great shady and cooler area, as long as the area under the trees does not become a mudhole. There are also portable shade options that can be used in pasture situations too. If the feeding area is outside, consider putting a shade cover over it to keep the feed itself cooler and possibly increase feed intake.

During hot weather and heat stress dairy cows decrease their feed intake. To keep the needed energy intake adequate for the ration, consider increasing the energy density in the ration to compensate for the reduced feed intake. Feeding high quality forages is useful and feeding a higher grain ration to obtain energy levels may be recommended. Along with feeding a higher grain diet a buffer may be added to the ration to minimize acidosis and milk fat depression. Also make sure the minerals are properly balanced for the heat. Increasing potassium, sodium, and magnesium may reduce heat stress by allowing the animal to dissipate heat. It is important to test your forages and consult with a nutritionist before making any ration changes.

For dairy cows that are kept in an indoor environment there are facility factors that can help keep the cows comfortable and cool. Providing extra ventilation in the barns and holding area can reduce the air temperature and humidity in the structures. Besides ventilation from fans, one can also consider opening up ridge vents and sidewalls for natural ventilation. Another option is to add a sprinkler or mist system. For these facility factors reaching out to a building and ventilation specialist before implementing major structural changes should be considered to ensure structural integrity is maintained. The buildings still have to handle snow loads in the winter too.

There are many different factors to be taken into consideration to keep dairy cows comfortable and cooler during periods of heat stress. Making sure to provide adequate water and shade, along with dietary and environmental factors can help the dairy cow get through the summer season with minimal long-term effects. Contact your local county extension educator for more information about the dairy industry. You can also visit the Division of Extension Dairy Website at <https://extension.wisc.edu/agriculture/dairy/>

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