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Heat Stress in Cattle

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Outside environmental temperatures exceeding 100°F (38°C) can cause significant stress on cattle and other livestock. High heat is exacerbated by high humidity resulting in a higher relative heat index. In cattle, heat stress may result in decreased milk production, poor reproductive performance and an increase in and more severe infections (mastitis, uterine, pneumonia) and death. Cattle with a fever from any type of infection are particularly sensitive to added heat stress. Low grade fevers brought on by vaccination or after giving birth are exacerbated by heat stress and in some cows may lead to death. An example of extreme heat and humidity problems occurred in July 2006 when approximately 20,000 animals died.



During these extreme heat periods, the first animals to die are often animals with underlying chronic disease though they may have shown no evidence of illness earlier. Cattle with moderate to severe diarrhea during periods of high heat are more susceptible to death secondary to dehydration. The identification of the agent causing the diarrhea to effectively treat the problem and keeping the animal hydrated are critical in keeping animals alive and preventing spread of infections to other animals.

Another problem during high heat periods is animal ration management. When animals are heat stressed, they eat less and this can lead to an increase in feed spoilage. Spoiled feed can cause intestinal upsets, diarrhea, and decreased milk production.

In extreme heat and humidity, keeping animals from overheating will help minimize death losses and maintain milk production and conception rates. Keeping animals cool with shade and misters and making fresh clean water available at all times are important in reducing the impact of high heat and humidity. If you have questions about ways to minimize the impact of extreme heat on any animal species, it is imperative to talk to your veterinarian to ensure that your animals are protected.

The California Animal Health and Food Safety Laboratory System provides testing to detect a wide range of metabolic, infectious, toxic and other diseases and can assist in determining the cause of death in livestock and avian species. The laboratory testing on livestock and avian species is used for the purposes of disease investigation, health monitoring and certification, regulatory programs and early detection of potentially devastating diseases to the California livestock and poultry industries.

