Mitigation against Extreme Heat

The best type of shade reflects the heat. Examples are galvanized metal or aluminum roofs. Shade should be provided at a rate of 20 to 24 square feet per head of cattle. In addition, the roofs should be about 10 to 14 feet above the ground to allow adequate airflow to occur. Other buildings and structures that may impede airflow should not be within 50 feet of where shade is provided.

Another method to reduce heat stress is to install sprinkler systems. These should produce large droplets and run for 2 to 3 minutes every 20 to 30 minutes. Because dairy cattle may suffer heat stress while being herded for milking, some farmers also install fans that run alternately with the sprinklers. The goal is to wet the cow with only as much water as can evaporate and reduce the surface heat through convection. It is not to soak the cow with water in an attempt to conduct heat away in the water runoff. Special care must be taken to ensure that sprinkler systems do not create excessively muddy environments because muddy coats reduce animals' ability to dissipate heat.

Wind breaks that are useful in the winter months against blowing snow may be detrimental in the summer, when air movement is a favorable condition to reduce heat stress. This should be assessed by determining where the wind dead spots are. Wind dead spots can be mitigated by using different areas to house livestock in winter and summer months or by fencing off areas close to the snow break in the summer.

To avoid the impact of weather-related losses, livestock producers should try to disseminate their operations (where they feed cattle) to several states, so that extreme conditions in one location affect only a small part of their total operation.