

March 2002

Prepare now for summer heat stress

It's time to begin making plans to minimize heat stress on your cows. Although the temperature is pleasant enough now, it won't be long before we see the temperature-humidity-index (THI) rise above 72.

Start by deciding whether you need to fine tune the cooling system you have or provide additional cooling. Herds with inadequate cooling may see milk production losses of 20 percent or more.

If you already think you have plenty of cooling, now is the time for a spring check-up. Make sure all fans are working. Clean the fans to improve their energy efficiency as well to enhance air movement. Repair water lines that may have ruptured during the winter. Replace spray nozzles in sprinkler systems where needed. Check electrical system to ensure that fans and sensors will work properly when needed.

If your herd doesn't have enough cooling, build shades as your first defense against summer heat stress. Provide 38-48 square feet of shade per cow. Use solid shade rather than slatted shade. Make the roof 11-14 feet high to minimize reflected solar radiation. Orient the shade north and south to allow the sun to dry the area under the shade. Groom the area under the shade so cows have a dry place to lie down. If you already have shades, check to make sure they meet the guidelines described above. Repair shades that have been damaged.

Next, evaluate your holding pen cooling. Does a roof provide shade? If not, add shade. Install soakers and fans to cool cows while they wait to be milked. Mount fans at a 30degree angle so air blows downward around the cow. Install parlor exit lane sprinklers to increase cooling beyond milking time.

Add sprinklers at feed bunks to encourage cows to maintain dry matter intake. Put the sprinklers on a timer so cows are soaked to the skin and then allowed time to air dry.

An ideal free stall barn has a roof pitch of 4 feet per 12 feet and an open ridge vent to encourage air flow. Side walls should be a minimum of 12 feet high with 14 feet preferably. Locate fans over the beds, above the feed bunk or both.

Although we usually discuss shade and cooling for the milking herd, cooling is just as important for dry cows and heifers. At a minimum, provide dry cows, heifers and calves with shade.

Check water supplies. Cows may double their water intake during the summer. If you've expanded your herd, verify that your water supply system can keep up with the increased water demand this summer. Provide baby calves with water as well. Milk isn't enough.

Prepare now to combat heat stress so you production losses this summer.

Contributing Extension Dairy Specialists:

Ellen Jordan and Michael Tomaszewski.

Texas Cooperative Extension, The Texas A&M University System