

MU Specialist Says Heat Stress May Cut Calf Crop Next Spring

NOVELTY, MO.

Summer heat stress in cow herds may not show up until much later – at calving time, a University of Missouri Extension specialist told the crowd at the MU Greenley Center field day.

“I expect to get calls next spring from producers saying that their cows just quit calving,” said Zac Erwin, livestock specialist, Monticello, Mo.

Heat stress affects both cows and bulls during breeding season. Bulls go bad, failing to breed cows, and the cows fail to maintain pregnancies.

Heat stress occurs most years, but was worse this year, with heat indexes higher than usual.

“We say that it’s not the heat but the humidity,” Erwin said. “That was true this year, as high humidity makes it difficult for cows to cool down.

“Also, high temperatures at night prevented cows from returning to a temperature-neutral zone.”

Cows sweat, but not as much as humans do. They must cool their bodies by panting. Many things can add to heat stress, including hide color, diet and cattle handling.

Shade, under either trees or man-made shelters, can help, Erwin said. Often overlooked is a reliable supply of cool, clean drinking water nearby to help the cows keep cool. Water intake can double to 20 gallons a day in extreme hot weather. “It’s best if they don’t have to walk more than 500 feet to water in this country,” Erwin added.

Water access as well as shade often becomes a problem in “mob” grazing with high animal density on a small paddock.

Keeping shade and water at different parts of the pasture keeps the cows from staying in one place. “When cows congregate under shade and stay there, they are not grazing,” Erwin said.

Research from Oklahoma State shows shade makes a big difference in conception rates of cows. In the study, cows in a control group had 83 percent pregnancies, while those in severe heat stress dropped to 50 percent.

Heat stress is most critical 10 days before and 20 days after breeding.

Producers can improve conception rates in herds by planning the breeding season for

cooler parts of the year. “Don’t try to breed cows past July 1,” Erwin said. “That creates situations where cows won’t get bred or can’t maintain pregnancies.”

Deciding to move away from calving in the cold and snow of February to the warm weather of May and June can put the breeding season into the heat of July and August.

Hardworking bulls might suffer the most in the heat. Lost fertility is something not noticed until it is too late. The bull doesn’t stop working, but may not be getting his job done.

“I often hear producers say when cows didn’t get bred, ‘The bull tested OK before the breeding season. This fall, he tests OK,’” Erwin said. “Problems can occur between those times. If a bull loses sperm quality, he takes 60 days to recover. That can cause a big gap in calving next spring.”

Grouping cows for a shorter breeding season has many benefits, Erwin said. Herds that have their calves in the first 21 days of the calving season are going to be more profitable.

Cows that calve early in the season for their eight- or nine-year life will have the equivalent of one-and-a-half to two more calves due to heavier weaning weights. In addition, a more uniform calf crop brings a premium at sale time.

Shade, water and a breezy resting place help keep cows and bulls cooler. If cows must be worked, do it as early in the morning as possible. “However, that didn’t help much this year because night temperatures stayed too high,” Erwin added.

The Greenley Center, located one mile east of Novelty, Mo., offers research results for crop and water management, pest control, and beef cows. The farm is located on claypan soils typical of northeastern Missouri.

Visitors at the field day received a 130-page research report on activities at Greenley Center.

The farm is a part of the Missouri Agricultural Experiment Station, which has regional farms across the state offering annual field days. All are part of the MU College of Agriculture, Food and Natural Resources, Columbia.

Special tours can be arranged by calling Randall Smoot, superintendent, at 660-739-4410.

Erwin can be reached at the MU Extension Center in Lewis County, 573-767-5273. Δ