



## Managing Heat Stress In The Feedlot

Heat stress can be a real problem for cattle feeders – especially when temperatures exceed 85° F in the presence of high humidity and air movement of five miles per hour or less.

Some feeding and management precautions can be taken to minimize the effects of heat stress on feedlot cattle.

### Water

- Water is critical for cooling cattle and maintaining intake in hot weather. A 1,100-lb steer will need to consume 22 to 24 gallons of water per day (about two gallons per 100 lbs body weight) in hot weather.
- Make sure there are two to three inches of linear watering space per head in the pen. Putting an extra water tank in the pen may be needed.
- Some yards use sprinklers to cool cattle. This often adds to the humidity load in the pen, creates mud wallows, promotes cattle bunching, and makes conditions worse. If cattle must be sprayed with water, do so in emergency situations and only spray the feet and legs.

### Heat Radiation

- Heat radiation from the body is a major means of cooling for cattle. This is especially true for the evening cool down period.
- In order to facilitate this radiant cooling, keep the north end of the yard as open as possible. Cattle radiate their body heat to the north, which can be impeded by a wall or

windbreak. Many feeders notice in hot weather cattle tend stand on the south edge of the yard or pen – allowing maximum northern open area. This is especially true when cattle are trying to cool down in the evening.

### Air Movement

- Make sure there is good air movement in the yard. Cut all weeds or tall grass within a 150-foot perimeter of the yard.
- Move cattle if there is a windbreak stopping air flow. For example, a 15-foot windbreak will create calm air for a distance of 150 feet downwind (ten feet for every one foot of windbreak height).

### Make Diet Adjustments

- Feed a greater proportion of the daily diet in the evening and less in the morning. For example, feed 30% of the daily diet early in the morning (before 7 a.m.) and 70% at 5 to 9 p.m. in the evening. This allows cattle to eat during the cool part of the day and when they have shed body heat. It takes about six hours after sundown for cattle to cool sufficiently and begin eating actively.
- Lower the energy level of the diet by increasing the amount of roughage fed. Feeding a lower energy diet literally reduces the heat produced by the steer or heifer. Lower the NEg level in the diet by seven to ten percent. For example, if cattle were on a “62 NEg” diet, reduce the energy to a “58 NEg” or feed two to three pounds of hay – replacing corn.

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- Increase the level of Rumensin® fed by 50 mg per head daily. This will help prevent cattle from “tanking” up or gorging themselves on feed at night when it cools off. Feeding a little more Rumensin will help reduce heat produced by the animal.
- Practice slick bunk feeding. Cattle feeders who keep cattle a little hungry have fewer heat stress problems than those who over-feed. In other words, feed the cattle one to two pounds per head daily less than they would consume if on “full feed.”
- Feed a properly balanced diet. A poorly balanced diet increases heat production by the animal.

### **Provide Shades**

- Some producers provide shade for their cattle. The shade structure should be open on all sides, provide a minimum of 25 to 45

square feet per animal and be 8 to 14 feet in height. Shades should be oriented east to west to maximize the area of shadow produced.

- Shades should be placed at least 50 feet from anything that will impede airflow such as buildings or trees. Shades should be placed far enough from each other to prevent cattle bunching.
- An ideal roof for shade would be galvanized or aluminum with a black coating or paint on the underside so heat is not reflected back on the animal.

### **Implant the Cattle**

- Make sure cattle have an active implant in their ear going into the hot time of the season. Implanted cattle have a lower maintenance requirement and thus produce slightly less body heat.