

## EMERGENCY MEASURES TO MINIMIZE IMPACT OF HEAT ON FEEDLOT CATTLE

Recent wet, humid weather combined with high temperatures has created very uncomfortable conditions for livestock in many areas of Nebraska according to Dr. Terry Mader, Beef Specialist at the University of Nebraska. Animals that are particularly at risk are those in close confinement, such as feedlot cattle. Cattle that are closest to market weights and carrying the greatest quantities of body condition will usually be affected by hot temperatures first. In addition black and dark colored cattle tend to be more susceptible to heat stress than light colored cattle. These cattle are particularly at risk during calm, cloudless days when radiant heat from the sun is most intense and no breeze exists. Dr. Mader suggest a number of measures that can be taken, which can help feedlot cattle deal with the heat. These include:

1. **Keep extremely current on marketing finished cattle.** During the months of July and August cattle or groups of cattle should be sold immediately, upon reaching market weight and finish. Shipping cattle to arrive at packing plants before 6am is also encouraged to allow the animal a few hours to cool down before daily temperatures begin to rise.
2. **Do not work or process any cattle past early to mid-morning.** If it is predicted to a particularly hot day reschedule working cattle to another day. Processing cattle can raise body temperature 1 degree or more, which will further contribute to heat stress.
3. **Insure that an adequate water supply is available.** If cattle are crowding existing waterers and other cattle are not allowed to drink than place stock tanks, filled with cool clean water, in pens to allow all cattle to drink and minimize crowding. During hot periods water intake may increase by as much as 50%. Water is needed to prevent dehydration but many animals will drink and use extra water just to cool the body. Animals will stick their tongue and nose in the water to take heat away from their body.
4. **Wet down a portion of the pen or mounds.** Standing near or lying on a cool surface enables body heat to be dispersed to the cooler, surrounding surface. As the ground heats up the animal has no place to dissipate heat too. Wetting 20 square foot of pen space or more per animal will allow sufficient room for all animals to get relief from the heat.
5. **Set up sprayers or sprinklers to wet down cattle.** Care must be taken to not cool off hot cattle too rapidly. Therefore it is preferred that sprinkling begin in the morning before cattle heat up. Large droplets of water, applied as a spray at 5 to 10 intervals once or twice per hour, are recommended rather than continually misting. A mist does not allow water to penetrate the hair coat as well as a spray does. Optimum cooling requires that the skin gets wet and not just the hair. Wetting cattle or pen surfaces may require an additional 5 to 15 gallons of water per animal per day. This may double the amount of water normally used. Producers must be careful to not deplete existing water supplies.
6. **Maximize airflow to the most susceptible cattle.** Cattle require 5 to 10 mph wind for optimum cooling to take place. Do not use pens in the summer in which airflow is restricted due to windbreaks or other structures located near by. If these pens are used, place lighter weight cattle in these pens, which are going to be finished after summer is over.
7. **Change feeding schedule or ration.** Change cattle feeding habits by feeding 60 to 70 % of the total daily ration around 6pm, after peak daily temperatures have occurred. Do not be concerned that cattle are dropping off on intake. Lowering feed intake is a natural survival mechanism used by the animal to minimize overall heat load. If needed, bring cattle back on feed using a storm ration, much like that which would be used in the winter.
8. **Control flies and other parasites, which bother cattle.** Large flies hatches occur almost simultaneously with warmer weather. Normally cattle can easily deal with one stress at a time but not more. Feedlot cattle group together to shelter themselves from biting flies. When this occurs, under hot conditions, cattle inside the group can easily suffocate.
9. **Provide artificial cooling for all individually handled cattle that are in very confined areas.** Cattle in closed facilities, such as show cattle and youth project cattle exposed to outside conditions, should have access to shade, cool-damp surfaces or to air circulated by fans.
10. **This is the first major heat wave of the summer.** This will likely not be the last major heat wave. Consider impact of flies, airflow restriction and body condition on comfort and well-being of animal. Cattle that are closest to being finished need to be in the most comfortable, open pens of the feedlot.