

Texas Dairy Matters

Higher Education Supporting the Industry

CONSERVE WATER, ADJUST SOAKERS

Ellen Jordan, Ph.D.
Department of Animal Science
Texas A&M AgriLife Extension Service
The Texas A&M University System

Periods of drought increase concerns regarding water availability. During the summer, cow cooling will add to dairy farm water usage. Start evaluating the cooling system now to identify ways to get maximum benefit from the water you use.

Research has shown soaking a cow to the skin reduces respiration rate and body temperature more than shade alone. Consequently, producers have installed systems to soak cows. If you already have a soaker system in place, the place to start water conservation is by checking the system for leaks. Replace any broken lines or nozzles before the system is actually needed. Some of these systems run nearly continuously, while others are on a timer to shut on and off at set intervals.



Many systems have been set to soak cows one minute out of five, but now is the time to fine tune that. Kansas State researchers recently evaluated changing the frequency of soaking as air temperature changed. When the air temperature is between 75 and 82 °F, soak cows once every 15 minutes. As the temperature rises to 83 to 87 °F, decrease the time to once every ten minutes. Finally if the temperature is over 87 °F, soak the cows once every five minutes.

Since soaking requires approximately 0.35 gallons of water per headlock per soaking cycle, reducing the frequency of soaking can result in conserving water. Water use is cut by two-thirds when temperatures are between 75 and 82 °F and by one-third when temperatures are between 83 and 87 °F, compared to running the soakers every five minutes.

There are timers available for purchase that can be programmed to automatically change the frequency of soaking based on the air temperature. Take the time to install them now to help conserve water all summer long.