

**DAIRY FARM
MANAGEMENT
BASICS**
A Farm Management Course by
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Lancaster County, Pennsylvania

Heat Stress - Article 20

Cows are negatively impacted by temperatures above about 75 to 80 degrees, and the impact is magnified by high humidities, hot nights and by any other stresses that are imposed upon cows at this same time. The effects of heat stress can be devastating and long lasting, especially if they do not have the opportunity to release body heat over night and cool down.

- Thus our goal is to
- Protect cows from exposure to excess heat
 - Help them dissipate heat from their body
 - Minimize the amount of heat they produce
 - Replenish minerals and fluids lost via excess excretions
 - Minimize other sources of stress in hot weather

Some things that can be done to minimize heat stress include

Provide cows easy access to lots of water. Ideally, the water should be close to their feeding and rest areas.

Provide shade, and lots of it to help keep cows dispersed so they don't create "mastitis pits"

Provide breezes by giving cows access to a breezy knoll, or use fans. House cows in a well-ventilated barn in the heat of the day. It is most important that the fans exchange air to remove excess heat and humidity created by the cows, breezes are secondary. Tunnel ventilation of testall barns is one option. Stabling cows also has the advantage of providing cows a clean, comfortable rest area that is close to feed and water.

Use evaporative cooling, where appropriate. Install sprinklers - not misters - that wet cows to the hide with coarse droplets of water. Put the sprinklers on a timer and run them about 5 minutes out of every 15-20 minutes. Don't keep the cows wet continuously. To cool down they need to dry off. It's the evaporation of moisture from the hide that cools them. To aid the evaporation process, install circulation fans in the freestall area. This will help to encourage cows to return to their stalls to cool down, and to lie down in a clean area, rather than in a sloppy feed alley. Make provisions for handling extra water and slop in the feed alleys.

If cows body temperatures rise to dangerously high levels and they are panting excessively, it may be necessary to hose them down. Consult your veterinarian.

Reduce cows' activity and excitement so they don't generate more heat.

Increase the energy density of the ration, feed less fiber and more grain, but be very sure to meet cows minimum needs for forage and fiber. The digestion of forages generates more heat than the digestion of grains. When feeding more grain, it may be beneficial to add more buffers to the ration, but not to the point that it impairs intake due to palatability problems.

Feed more minerals to replenish what was lost due to increased excretion of fluids.

Feed most of the forages in the cooler hours of the night, but remember cows' body temperatures do not drop until 4 or 5 hours after the sun starts going down.

Breed cows so they do not freshen nor have to be bred in the heat of summer. Hot weather kills conception, and it may be months before affected cows recover and start to conceive.



(Continued from Page A10)

thru Nov. 5.

Thursday, November 5

- Berks County 15th Annual Farm-City Banquet, Sheraton Berkshire, Wyomissing, 7 p.m.
- Md. and Va. Milk Producers Meeting, New Midway Fire Hall, New Midway, 7 p.m.
- Bradford County Extension annual meeting, Warren Township

Community Building, 7:30 p.m.

Lehigh County Cooperative Extension annual meeting, Lehigh County Vo-Tech School, Schnecksville, 7 p.m.-9:30 p.m.

Mercer County Annual Extension meeting, 7 p.m.

Friday, November 6

Maryland Make It Yourself With Wool Contest, Montgomery County Ag Center, Gaithersburg.

Farm Steel Recycling Field Day, Loretto, Cambria County Dairy Farm, 10 a.m.-2:30 p.m.

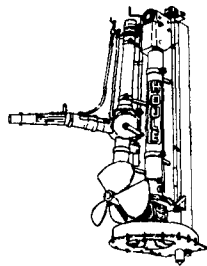
American Woodworker Show, Fort Washington Expo Center, thru Nov. 8.

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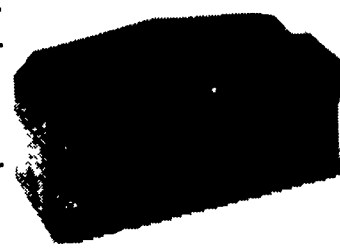


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