

Hormones keep cows cool

COLUMBIA, Mo. — Some day high producing dairy cows may receive a dose of "anti-stress" hormones before a heat wave or other stressful situation to keep their milk production from suffering or to aid in recovery from the stressful event.

This is what University of Missouri-Columbia animal scientists hope to prove from research they are conducting for a three-year study of heat stress on dairy cows.

According to Harold Johnson and Mary Bober of UMC's dairy husbandry department, this research is taking a two-pronged approach. The first is a short-ranged reduction in heat stress artificially. This means using fans, shade and shelters.

The longer range approach is the study of hormones and how they affect

stress resistance and how stress affects them.

Johnson said that heat stress can significantly reduce a dairy cow's milk production.

"When the temperature stays above 90 degrees in the day with high humidity and above 70 at night you begin to see production losses.

"Your high producing cows are affected most.

"A cow that is producing 60 to 70 pounds a day may lose 5 to 10 percent of her production capabilities in a heat wave."

Johnson and his colleagues have found that cows lose certain hormones associated with milk production when exposed to heat stress while other stress hormones increase.

They hope to discover whether it will be possible to replace the hormone losses and decrease the hormone gains so the cow can be restored to its thermal norm which is about 70 degrees

This should help dairy farmers reduce production losses caused by stress.

A cow may not recover its normal production for several weeks after being exposed to heat stress.

UMC researchers have found that five hormones in cattle are sensitive to heat and stress. These are triiodothyronine (known as T-3), thyroxine (T-4), prolactin from the pancreas, growth hormone from the pituitary gland and insulin.

"What we don't know is if body heat affects lactation or if body heat affects the hormones which affect lactation. This basic information is essential for implementation of corrective anti-stress practices."

Johnson said that heat is being used as a "control stress" during research but a long-range goal is to apply discoveries in this area to other stresses, such as those

Trusts save \$1000's

(Continued from Page B3)

was put in trust for the children.

The wife survived her husband for five years. When she died, the farm was sold for \$400,000.

This amount, said Byler, went entirely to the children. "Not one penny of inheritance tax was paid on the \$400,000 because the parents had a properly written will. Since the farm was in trust, it was shielded from the estate taxes. The only problem was the widow had to deal with the trustee, who was looking after her financially, for five years."

Byler cautioned against naming a child as the trustee in order to save the trustee fees charged by a bank or attorney. He said not only is it risky, because a child might turn against a parent

caused by transportation, fear and poor management.

This is the second year of the study the dairy husbandry department is working on in cooperation with the U.S. Department of Agriculture and UMC's department of agricultural engineering.

since paying for their well-being would make the inheritance smaller, but because it puts the child in a tough spot.

The Lancaster attorney also explained the surviving spouse cannot be the trustee, although they can be one of a panel of three trustees. "The surviving spouse cannot vote at all when it comes to making payments to themselves, and as one of a panel of three trustees, they can be outvoted."

One question that always pops up when discussing trusts and estate plans is how are the values of the farms decided. Since most of the worth of a farm estate is tied up in the land, who decides how much it is really worth in order to successfully plan an estate?

According to Richard Dennison, of the Pennsylvania Farmers' Association's legal services, the land "is appraised on an agricultural value provided it has been farmed by the decedent or a lineal decedent of the decedent for 5 of the 8 previous years before death, and that it will be farmed for 15 years by lineal decedents."

If the farm is sold or farmed by someone other than a son, grandson, father, grandfather, then the government tacks on a rollback tax which would have to be satisfied for a clear title.

"If you use family farm appraisal, you'll have to have two appraisals: highest and best use and family farm appraisal," said Dennison. "There will be a 15 year lien against the property on the highest and best use tax, but the estate will only pay the tax based on family farm use. The highest and best use difference will be the lien recorded at the courthouse."

Estate planning is not an easy task at best, and there are millions of rules and regulations that come to play at a time when most people are not in the frame of mind for straight thinking.

But, said Ford, with functional planning, it's possible to have your cake and eat it too. With a trust as a tool, you can get income to the people you want to have income, and can minimize inheritance taxes, too.

In next week's issue of Lancaster Farming we will study the estate settlement procedure and what makes a good executor.

Leave young wildlife alone

HARRISBURG — The Pennsylvania State Game Commission is renewing its annual plea to persons sympathetic to wildlife to leave wild youngsters in their natural habitat.

They ask that people avoid encouraging or enticing wildlife to congregate in areas where the creatures become troublesome.

With many young birds and animals in the field and forest at this time of the year, persons finding the tiny creatures may innocently believe the animals have been deserted or orphaned. This is not usually the case.

The parents, frightened by the approach of humans,

have taken cover a short distance away. They will return to take care of their offspring as soon as they are alone.

Of equal concern are animals fed or otherwise attracted to particular locations, usually to be viewed by humans. Special problems are created by those who feed bears, inducing the cute, cuddly creatures to come to or remain in a certain area.

Later, these animals become a nuisance, constantly showing up for handouts, upsetting garbage cans, roaming through towns, climbing trees, or frightening residents.

Spring Sale

\$ 100.00 Off

SUGGESTED RETAIL PRICE

ON ALL MODELS OF FISHER STOVES IN STOCK



BUY NOW BEFORE THE FALL INCREASES AND SAVE

Fisher Stoves

Bowman's Stove Shop

RD 3 Napierville Road
Ephrata, PA 17522
Follow the signs from the light at Hinkletown

Tues., Wed., Sat 9-5
Thurs., Fri 9-9

Closed Monday

717-733-4973

Financing Available



New White Utility Tractors pack value into every dollar of your investment.



The new White 43 hp 2-45 and 60 hp 2-62 utility tractors give you wet disc brakes, 4-cylinder diesel engines, tilt steering wheel and 10 working speeds between 1 and 6.2 mph... all as value-packed, standard features.



By nature, your utility tractor is a hardworking investment. That's why White® designed the new 43 hp* 2-45 and 60 hp* 2-62 Field Boss® Tractors with the performance features that will give you more in return for your utility tractor dollar.

Try finding any other utility tractor with planetary final drives, remote hydraulic valve, a 20-speed transmission, tilt steering wheel and independent 540 pto all standard. You won't.

Look even further at the 2-45 and 2-62, and you'll find integral power steering, Category II 3-point hitch and optional power front axle.

And there are even more features that will pack value into every dollar of your investment. Stop by and see.

*Mfrs est PTO hp

FARMERSVILLE EQUIPMENT INC.

RD 4 Ephrata, PA

Hours: Mon., Tues., Wed., Fri. - 7:30 to 5:30; Thurs. til 9; Sat. til 3

717-354-4271