

# Penn State Offers Master Gardener Program

LANCASTER (Lancaster Co.)— If you have a little free time, you can become one of the most skilled gardeners in the county. The Lancaster County Cooperative Extension is planning a Master Gardener Program to be held throughout this fall. All you need in order to apply is a genuine interest in gardening.

"The purpose of the program is two-fold," said Bruce Hellerick, horticulture agent. "First, we would like to make you the best general horticulturist possible. At the same time, we want to better serve Lancaster County by using your new skills and talents to help teach the people of the county."

Educational sessions are scheduled for a 11-week period beginning on August 19. Sessions will meet on Wednesday from 9 a.m. to 11:30 a.m. at the Farm and Home Center in Lancaster.

Topics to be taught during the course include:

- Plant science
- Entomology
- Soil science
- Plant pathology
- IPM/pesticide safety
- Pruning theory
- Turf culture
- Communications
- Plant propagation
- Woody ornamental selection and care.

In addition, you will be

expected to attend a Saturday workshop in early spring.

In return for the course and workshops, you will be asked to volunteer 50 hours of your time to the Lancaster County Cooperative Extension. This year we are seeking volunteers who have a particular interest in the following areas:

- Idea garden (work with other Master Gardeners to develop and maintain the Idea Garden).
- Horticultural answering ser-

vice (answer home gardening questions in person and by phone).

- Horticultural office staff (maintain materials for office files, notebooks and computer).
- Exhibit coordinator (develop exhibits that depict horticultural programs offered by cooperative extension).
- Meet the plants (provide educational programs on plant botany, identification, culture and care to youth in elementary

schools).

At the end of your training and service, you will be awarded a Penn State Master Gardener's Certificate from Penn State's Dean of Agriculture.

It is important that you realize that this is a complete course and that all classes must be attended as part of the program, said Hellerick. Enrollment is limited.

Cost for the program is \$25 payable upon acceptance. (This

covers the cost of the handbook and name pin.)

A personal interview and pre-test will be scheduled in July once your application has been completed and returned.

If you have a real interest in gardening and would like to become a Master Gardener, contact Lancaster County Cooperative Extension, c/o Master Gardening, 1383 Arcadia Road, Room 1, Lancaster, PA 17601.

## Extra Minerals May Increase Milk Production

GAINESVILLE, Fla. — Recent research at the University of Florida indicates that increasing the concentration of certain dietary minerals may help dairy cows cope with the effects of heat stress, according to Florida's Dr. Barney Harris Jr.

"The work suggests that increasing the concentration of magnesium, potassium, and sodium above the guidelines set by the National Research Council will increase dry matter intake and milk production during hot weather," said Harris, a professor of dairy nutrition and a leading authority on heat stress in dairy cattle.

NRC recommendation for high-producing cows call for 0.25 percent magnesium, 1.0 percent potassium, and .18 percent sodium

in the ration on a dry matter basis. Harris recommends increasing these amounts to .3 percent, 1.5 percent, and 0.4 to 0.6 percent, respectively, during periods of heat stress.

"The cows in the trials receiving the extra minerals produced two to three additional pounds of milk per day, for each of the three minerals tested," Harris said. "While the effects may not be additive, each of these minerals showed a positive response in milk production. They also exhibited fewer physical indications of discomfort than the control cows."

The higher levels of magnesium and potassium can easily be reached by increasing the amount of a complete mineral mix, he said. But to reach the high level of sodium, it may help to feed a rumen

buffer.

"Sodium bicarbonate and sodium sesquicarbonate each contain around 27 percent sodium," he said. "Just feeding the recommended rate will boost sodium intake substantially."


Dr. Tom Sweeney, manager, animal research/technical services for Church & Dwight Co., Inc., recommends feeding sodium bicarbonate at 1.5 percent of the grain ration or 0.8 ounces per 10 pounds of milk produced per cow per day throughout the year. Either method of calculation will supply sodium at 0.27 percent of dry mat-

ter to a cow producing 100 pounds of milk consuming 50 pounds of dry matter, he said.


"This is roughly half the amount of sodium Harris recommends," he said. "Feeding sodium bicarbonate also may help cows cope with fluctuations in feed intake that often occur during heat stress."

Harris cautions that exceeding the NRC recommendations for these minerals only applies to rations for lactating cows. Dry cows receiving excessive mineral amounts may show a higher incidence of udder edema.

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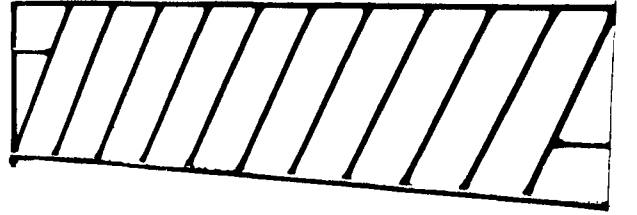
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