# How to reach peek output 60 days after freshening

LANCASTER - Reaching peak milk output within 60 days after freshening is one of the challenges faced by dairymen striving for top herd production.

Michael E. Hutjens, extension dairyman, suggests several calving-time and early lactation feeding strategies to help dairy cows reach maximum milk production as soon as possible after calving.

"Dairy cows are forced to make major adjustments throughout the gestation and lactation cycle," Hutjens explains. "The cow shifts from low nutrient needs for maintenance and growth during the dry period to high nutrient requirements in order to produce large quantities of milk shortly after calving."

Hutjens says losses occur when dairymen cannot control metabolic and nutritional disorders during the critical early lactation period.

A sound feeding program for the dry period and controlled transition to the milking ration can reap an extra 500 to 3000 pounds of milk per cow per lactation, he says.

During the dry priod, cows should be fed a ration especially formulated for dry cows, to allow for adequate conditioning and fetal growth without causing excess weight gains. To ease the transition to milking rations, two weeks before calving Hutjens recommends feeding dry cows a blended ration containing

feeds received by highproducing cows.

"At calving time, maintain rumen digestion with long forage, since cattle consume less feed at that time and rumen function decreases," he says. "Any major ration changes at calving time should be made gradually."

Hutjens suggests adding sodium bicarbonate to the feed to stabilize rumen fermentation and increase dry matter intake while making ration changes. Bicarb is recommended at a level of one to two percent of the grain mix or a topdressing of one to four ounces per head daily to ease

ration adjustment. Careful nutritional management is important during the early stages of lactation, since dairy cows require more nutrients than the feeding program can provide, according to Hutiens.

Most cows reach peak milk production at about eight weeks after freshening, but don't reach their highest dry matter intake until 14 to 16 weeks. Hutjens offers several tips to insure maximum milk production during this critical period:

Challenge cows to reach their maximum milk production. each one pound increase in peak daily milk production correspons to a 200-pound increase in milk output for the lactatioan.

Meet protein needs with naturla proteins that are low in rumen degradability. Topdress protein or increase the level int he total ration to meet milk production, demands and utilize fat reserves in the cow's body.

Insure maximum dry matter intake with top quality forages, palatable grains, and blended rations. Avoid rations with moisture content over 60 percent.

Maintain optimum rumen digestion by feeding 6.5 to 7 pounds of crude fiber. Feed mineral forage (1.5 percent of body weight dry matter) and limit use of finely chopped or pelleted forages.

Increase grain to a maximum of 55 percent of the total ration on a dry matter basis (50 percent with corn silage), with high quality forages.

Minimize the amount of nonprotein nitrogen fed during -early lactation. Illinois research indicates that urea-supplemented rations result in lower peak milk production than protein-equivalent soybean meal rations.

Adjust the nitrogen-toenergy ratio int he ration to insure optimum protein and energy utilization and maximize milk production. The energy and protein balance should reflect the needs of the rumen and the

Evaluate rations by the total amount of nutrients they contain, rather than by percentages. Incorrect intakes of dry matter may result in nutrient imbalances.

If milk fat content drops, check the cause. If the problem remains, consider adding a butterfat-enhancing feed ingredient such as sodium bicarbonate, bentonite, magnesium oxide, methionine hydroxy analog. or calcium carbonate.

'Sodium bicarbonate neutralizes rumen acids, favors the production of acetate, (a volatile fatty acid) and helps the growth of microbes in the rumen," Hutiens says.

He cites research at Kansas where the greatest response to feeding bicarb occured in the first 120 days of lactation; and at Penn State University, where researchers reported an average of 6.2 pounds more fat-corrected-milk during the first nine weeks after calving when sodium bicarbonate was fed.

For increased butterfat production, Hutjens recommends a level of one to two percent sodium bicarbonate in the grain mix, or a top-dressing of two to four ounces per cow per day. Research from Wisconsin suggests using a grain mixture with five percent sodium bicarbonate, to correct a serious drop in milk fat, he says.

The extension specialist recommends that individual dairymen compare the cost of any feed ingredient with their own production responses before makinglong-term ration changes

## Acreage request cut for canal park site

NEWTON HAMILTON — The National Park Service and local citizens of this Mifflin County town came away from a Tuesday night meeting with a compromise which may save much of the farmland which could have been taken for a park site.

The meeting, which remained fairly low-key throughout the evening, was called to inform citizens about NPS's land acquisition plan for the Allegheny Portage Railroad National Historic Site.

A citizen's group read a statement condemning the taking of highly productive bottomland used for farming. Three farms and part of a fourth are involved in condemnation the procedure.

The group still voiced opposition to having to pay taxes and upkeep on property which they will not be able to develop or will to

They also said they we concerned about the impact properties, including of the park site on the small boro of Newton Hamilton. acres of land, for a period of They questioned not only the 25 years or less.

cost to the town of providing services and protection to the visitors but also the loss of tax revenue to the com-

The National Park Service representatives outlined their plans to acquire lands and waters in a fee or lessthan-fee interest within the areas they had outlined.

The latter alternative "places development and use restrictions on the owner of a piece of property to insure that private use of the land is compatible with the preservation objectives and public use of the park," NPS said.

NPS representatives explained, for the first time to many of the Newton Hamilton area residents, exactly which properties would be involved and which would not be taken.

They also said owners of condemned land will be permitted to reserve the use and occupancy of residential dwellings and up to three

### **Dairy**

(Continued from Page A32) equivalent of the extension service is just needed to help keep farmers up-to-date.

Agriculture students at the University of Delaware learn a great deal about plants and animals in the laboratory and classroom. but actual work experience on a farm is not a requirement for graduation.

Of course, not all students in the College plan to work on farms, but for those who do, Hanelein strongly recommends such experience, particularly experience abroad. Germans aren't quite sure where to fit the American students into their ordered trade struc-

Does an American animal science sophomore have lower or higher status than a 19-year-old German apprentice?

But farmers generally solve that problem by welcoming the student into the family as a son or daughter, and the question becomes irrelevant.

experienced Even American farmers can benefit from a few weeks in Europe, Haenlein believes. That's why he's going to lead an expedition of Delaware farmers on an educational farm tour of several

European countries this summer.

Some of America's newest and most talked about methods of energy conservation have been used for years in Europe, where energy has always been relatively scarce and expensive.

He's taking the group to see on-farm distillation of alcohol fuel, methane production from animal wastes, and intensive farming of very small acreages.

At the same time, Haenlein is the first to admit that not all the progress comes from one direction. Many German dairy breeders improve their stock by artificially inseminating their cows with U.S. semen unported, for example, from the Lancaster dairy county,

"The world is so small and so mutually involved," Haenlein points out. "These exchanges can help make all of us aware of how much we can learn from one another. And by really getting to know one-another one a oneto-one basis, especially our young people, we may be able to prevent some of the terrible world problems that are caused by misun-derstanding."

### **ESTATE AUCTION**

THE WILLIAM L PIERCE COUNTRY STORE Warwick, Pennsylvania **SATURDAY JUNE 21st** 10:00 A.M.

**GROCERY STOCK \* EQUIPMENT \* ANTIQUES** 

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### Some pool plant rules suspended

LANCASTER - The U.S. requested by Lenigh Valley Department of Agriculture has suspended temporarily the limitations on the type of pool that is eligible for automatic pool status during March through August under the Middle Atlantic federal milk marketing order.

Herbert L. Forest, dairy official with the Agricultural Marketing Service of USDA, said the suspension will permit pool status for May through August 1980 for any plant that was a pool plant during the prior September through February period.

The suspension was

Cooperative and by Michaels\* Dairies, Inc., which said that present marketing conditions make it nearly impossible for them to meet the regular processing plant and pool distributing plant requirements of the order.

They contended that as a result the dairy farmers supplying their plants were threatened with loss of pooling status which could result in lower returns for their milk, Forest said.

The suspension order was published in the June 10 Federal Register.

# **PUBLIC AUCTION**

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