

Do you know your dairy P's and Q's?

"P"eak milk yields, "Q"uality forage are meeting topics

BY WENDY WEHR

LANCASTER — "Dairying is not just a way of life now, it's a business," said Pennfield vice-president Ray Lehr in his opening remarks at the Pennfield dairy management meeting. And attendance at the Tuesday meeting in Lancaster showed that many area farmers are well aware of the need to run an efficient dairy business.

A crowd of local dairymen nearly filled the Farm and Home Center auditorium to take in the latest findings on forages and dairy nutrition. Dr. John Baylor, former Penn State professor of agronomy extension, spoke about alfalfa quality, yields and harvesting, while Dr. Brian Perkins, manager of dairy and livestock nutrition at Pennfield, addressed the topics of managing for peak milk production and energy utilization in the dairy cow.

Alfalfa, "Queen of Forages"

Dr. Baylor began his morning presentation with a discussion of alfalfa economics. He reminded the dairymen not to scrimp when it comes to purchasing seed. While cost of seed may be about one third of the cost of establishing the stand of alfalfa, over the life of the stand seed costs are much less significant.

When annual production costs are prorated over the life of the stand, said Baylor, seed costs are only 3.5 percent of the total.

"You must choose varieties that have the potential to perform for you," continued Baylor. He particularly stressed the need to select varieties with multi-pest resistance.

Don't let anyone tell you that their variety is completely, 100 percent, resistant to disease, he cautioned as he described how varieties are labeled. A seed that is 51 percent or more resistant to a disease can be labeled "high resistance."

"High yields start with good stands," emphasized Baylor throughout his talk. Soil tests are a must, and proper seeding techniques are equally valuable.

"I like to see a little grass in the mixture, if it's feasible for you," said Baylor. And as questions arose about the use of perennial rye grass, he added that the quality of rye grass, which is most nutritious and palatable, is unsurpassed among the grasses.

Achieving good stands of alfalfa also depends on weed control at or before establishment and insect control during the establishment year. More than once during his morning slide presentation Baylor encouraged the dairy farmers to refer to the valuable information in the Penn State Agronomy guide.

Quality Forage, Not Roughage

In the afternoon, Dr. Baylor focused on managing established stands and harvesting alfalfa. Fertilizing is a must for top yields, but Baylor cautioned that Lancaster County farmers in particular must be careful with their fertility program because of the high levels of phosphate and potash in the soil.

Harvesting on time is also crucial. "As yield goes up, quality goes down, so you have to find the compromise," outlined Baylor. The compromise is to obtain a high yield of high quality forage that the cows will consume.

Harvest alfalfa in the bud stage, reminded Baylor. "The stage of maturity is still the most important single factor in quality."

A good stand of alfalfa requires total seasonal management, he remarked as he outlined proper weed control in the summer, fall,

spring, and corn phase of the rotation.

In terms of alfalfa harvest, Baylor clearly favored the use of hay crop silage. "Hay crop silage should be an integral part of every dairy farm," he stated, continuing with statistics from the Pa. Alfalfa Growers' Program. All of the top ten finalists in this year's contest put at least their first and second cuttings in the silo, and a majority made hay crop silage from all four cuttings.

He also revealed some suggestions for proper harvest and storage, such as wilting down to 65 percent moisture, using a covered wagon, filling silo rapidly, and eliminating air in the silo.

And with regard to silage additives, Baylor commented that "if you do everything else right, there is some question that the additive is needed." If you do something wrong, maybe the silage additives have some value.

Peak Milk Yields

While Dr. Baylor delved into growing and harvesting a quality forage, Dr. Brian Perkins shared information about using that forage and other feeds for the cows' benefit. His morning slide presentation described managing for peak milk yields.

It's well-known, Perkins stated, that for every additional pound of milk at her peak, you can count on 205 pounds extra on the cow's total lactation.

Managing for peak milk yields begins with the dry cow program. Length of the dry period should be determined by the age of the cow, her calving interval, and her milk production late in the lactation.

Drying her off, said Perkins, requires a change in her feeding program. The dry cow's diet must include lots of fiber, to keep her rumen full and working, but should be low energy and maintain a mineral balance. Less than 100 grams of calcium is required for the dry cow.

Perkins described what he considers to be a dangerous feeding program — 15 lbs. of alfalfa hay and 20 lbs. of corn silage — which gives the dry cow far too much calcium, and leaves her more susceptible to milk fever.

"Substitute grass hay for alfalfa," he emphasized, and that will bring the calcium level more in line with her needs. A cow that freshens with milk fever is more likely to have calving problems, retain her placenta, and come down with metritis and mastitis.

Other steps in managing for peak milk yields are establishing a pre-freshening group and providing proper calving conditions. You can introduce new feeds to the cow's rumen prior to her freshening, but calcium intake should still be kept low, he said.

Once she freshens, appetite is the key. "If you can get her to eat, you can get her to milk," remarked Perkins. A decreased appetite leads to a negative energy balance, a delayed first heat, and the possibility of fatty liver.

To bring her up gradually on feed, Perkins recommended six to eight pounds of dairy feed as a springer, increased to 10 to 12 pounds at freshening. Then increase by 3/4 to 1 1/2 pounds per day. These last figures are very general, he added, because it's most important to use common sense.

"Become a better 'cow person' so you can identify potential problems," Perkins concluded. This along with a good dry cow program and proper care around calving are keys to improving peak milk yields.



From left are Dr. John Baylor, professor emeritus of agronomy extension, Penn State; Dr. Brian Perkins, manager of dairy and livestock nutrition, Pennfield; and Don Mahlandt, manager of dairy and hog feed sales, Pennfield. All spoke at the Pennfield dairy management meeting in Lancaster on Tuesday.

Energy Utilization

"More rations are out of balance for energy than for anything else," began Perkins in his afternoon session on energy utilization. The cow needs energy for maintenance, growth, reproduction, and lactation.

Part of the confusion about energy centers around measuring and reporting it. If you or someone you're working with simply measures energy as TDN, said Perkins, that's behind the times. What you really need to know is Net Energy for Lactation.

Twenty-five percent of the total energy she eats is available to make milk, he stated. That energy for lactation is used for synthesis of milk, as sugar in the milk, and as fat in the milk.

When a cow suffers from ketosis,

Perkins explained, she has a high demand for milk sugar, which is remedied by a drop in her blood glucose, which then causes her body fat to be mobilized, increasing the ketones in the blood.

Preventing ketosis, he reminded the farmers, can be accomplished by maximizing feed intake — which means having a sound dry cow program and practicing the "art of feeding" — and by increasing the energy content of the ration. To do this he recommended feeding high-quality forages and using fat-added feeds.

At the conclusion of Dr. Perkins' and Dr. Baylor's sessions, the dairy farmers took advantage of opportunities to ask numerous questions. In addition, Don Mahlandt, manager of dairy and

hog feed sales for Pennfield, took some time to review some dairy profit analysis figures with the dairymen.

In comparing income over feed costs for a 14,000 lb. herd to those of a 20,000 lb. herd, he showed a substantial economic advantage for the dairyman who manages an 18,000 or 20,000 lb. herd.

In addition, he reminded the farmers that they need to pay increased attention to heifers. No longer, he said, can a dairyman only expect 12,000 lbs. from a heifer and still maintain a 18,000 lb. herd average.

The Pennfield dairy management meeting held in Lancaster on Tuesday was one of three offered this week to dairymen in different regions of the state.

PPF donates turkeys to Gov. and charity

HARRISBURG — The Pennsylvania Poultry Federation made its annual presentation of a holiday turkey to Governor and Mrs. Thornburgh on Tuesday in front of the Capitol Building. The event was the last of nine scheduled events for the Governor that day.

Richard Kendig, President of the Pennsylvania Turkey Council, made the presentation to the Governor. He was joined by Duane Koch, of Koch's Turkey Farm, Tamaqua, which is supplying the Governor's turkey and the live show turkey that will be present, a 35-pound mature bronze tom (male). Also on hand for the ceremony was John Hoffman, Executive Director of the Pennsylvania Poultry Federation and Penrose Hallowell, Pennsylvania's Secretary of Agriculture.

As in previous years, the Federation donated 50 Pennsylvania-grown turkeys to a charity chosen by the Thornburghs. This year's recipient is the Salvation Army of Harrisburg. Major Clyde McEwen, local administrator of the Salvation Army was also in attendance at the presentation ceremony. These turkeys were placed in holiday food baskets for distribution to the needy. Delivery of the turkeys to

the Salvation Army took place on Thursday.

Although the production of Pennsylvania turkeys has dropped to 6.5 million annually, a three percent decrease from 1983 levels, the turkey industry remains one of the largest growing industries in Pennsylvania. The state currently ranks 11th in turkey production but, as recently as 1979, was not even on the list of the top thirty turkey producing states.

Two Pennsylvania-based turkey processing companies are among the top thirty in the country, based

on estimated amount of liveweight processed annually. Round Hill Foods, New Oxford, places 19th on the list with an estimated 60-65 million pounds of live product processed in 1983, while Empire Kosher Foods, Mifflintown, places 29th with estimated processing of 20-25 million pounds of live turkey per year.

The top three turkey producing states are North Carolina, Minnesota, and California respectively. Together, these three states account for some 46% of the nation's annual turkey output.

