Importance of Balanced Ration Is Stressed at Dairy Day

More than 300 persons attended the annual Dairy Day at the Farm and Home Center Tuesday.

Talks ranged from projections on the future of the dairy industry to discussions of dairying problems and how to solve them.

Richard S. Adams, Penn State Extension dairy specialist, spoke on "Dairy Cattle Feeding for Efficient Production."

Adams stressed the importance of balanced rations which contain all the elements and nutrients needed for optimum performance and health.

He emphasized that good rations can be achieved using many different kinds of combinations of hay, corn, grain, and supplements. The important thing, he explained, is to make sure that the feed contains the proper balance of such basics as energy, protein, and vitamins

He said he has found that herds often have problems using rations built around a high level of grasses.

Such rations often have very low levels of protein and not enough digestible fiber This does not allow the cow's rumen to work properly.

He also pointed out that some dairymen have serious problems using a ration built almost exclusively around corn silage One herd of Holsteins, given all the corn silage the animals could eat, was producing less than 10,000 pounds of milk. The cows were "hog-fat" because the ration had high energy but low protein levels.

He cited another example of a dairyman who ran into serious trouble with a lot of "downer" cows with a ration which included no vitamin or mineral supplements during a two year period.

Adams stated that many dairymen with good quality forage get better results than some dairymen who use a combination of forage and grain. The secret is in the quality and content of the feeds and in providing the proper combinations to get a balanced diet, Adams emphasized.

He also noted that sometimes a farmer can get by for anywhere from two months to two years without serious consequences when he feeds an inferior ration to his animals How long he can get by depends on the condition of the animal, and the extent to which the ration is deficient.

But when the ration is deficient, "the cow is robbing from her own system" to make up for the deficiency and sooner or later the deficiency will show up in the form of decreased production and health problems, Adams explained.

In arriving at a balanced ration, Adams suggested that the forage should provide 40 to 50 per cent or more of the dry matter and 75 per cent of the energy Grain feeding, he said, should be the "balancer"

He recommended that the farmer use forage at whatever level his farm operation allows and to add whatever amount of grain is necessary to balance the ration

He emphasized that grain in itself is insufficient without necessary additions

The farmer should think in terms of a total ration which includes 12 to 14 per cent of crude protein, 16 to 20 per cent of crude fiber, 65 per cent or more of digestibility, about 35 per cent of carbohydrates, one to two per cent of non-protein nitrogen and smaller amounts of calcium, phosphorus, magnesium, and vitamins A, B and E

Adams noted that it's difficult to achieve the proper balance but he emphasized that efficient herd management requires constant effort to achieve the best possible ration.

He said forage analysis and mineral analysis of the farmer's feed can be a valuable tool in setting him on the right path toward a quality feeding program

In feeding minerals, he said, a free choice supply is not always adequate because some animals do not eat their minimum requirements A small amount in the feed is also necessary, he said.

The Pollution Issue

He suggested that farmers give the various feed firms a chance to assist by recommending a complete feeding system

A Roger Grout, Penn State Extension agricultural engineer, spoke on "Waste Disposal and Pollution" Grout noted the national trend toward a greater emphasis on environmental control

In particular, he pointed out the new environmental protection agency in Washington and the renaming of the ACP program to REAP, a change not only in name but in emphasis, he said.

Grout also said that the new trend toward environmental protection has exceeded new knowledge on the means of solving pollution problems.

But he noted that research is underway to find the answers

Penn State has been working with equipment which puts manure in liquid form directly into the soil and covers it in one operation

Noting that farmers have been "recycling manure through the soil for many years," he predicted that "a lot more research will be done on how to get rid of wastes without disturbing the neighbors"

Good Management Factors

"Herd Management in the 70s" was the topic of Donald L. Ace Extension dairy specialist, who told dairymen that "man's ability to manage" was the single most important factor in successful dairy operations

Dairymen, he said, should be concerned with

—Too much overhead, a factor that takes the profit out of the milk sale

—Too many purchases for the herd size and production level. Too much hired help, for example.

—Reasons for change Make a change if it will improve operations, he said, but don't change unless there is a good reason.

—Using management tools such as records of feed costs, milk production, cow selection, sire analysis These tools, he said, can make the difference in operations.

—Direction of the dairy operation Is a farmer concerned only with marketing milk, or does he want to sell both milk and animals?

—Liking his dairy operation. He said that no matter how modern an operation, if the farmer doesn't like it, he won't be able to do a good job with it

—Systems management, or integrating various operations so that they work at peak efficiency

Cost Squeeze Projected

William F Johnstone, Penn State agricultural economist, predicted dairy costs will rise faster in the 1970's than will prices received for milk, leading to a lower net income for dairymen

He also predicted increased production through 1972 based on factors such as increased availability of labor, a slowdown in the culling rate and increased production per cow

He did foresee a possible increase in 1971 in the federal price support level for Class I milk Under federal law, milk parity is set between 75 and 90 per cent, the present price of $4 66 per hundredweight is about 77 per cent of parity

But he projected a slowing of the rate of price increases, indicating an increase in 1971 of less than the 15 to 20 cents in 1970

Dairymen also can expect the 1970's to bring greater involvement in public issues, such as milk promotion, Class I base price and state milk control, according to Johnstone

Master of ceremonies of Dairy Day was Donald S Eby, president of the Red Rose Dairy Herd Improvement Association (DHIA).

Many local dairy equipment dealers and suppliers had exhibits and displays for inspection by farmers

Dairy Day was conducted by the Lancaster County Agricultural Extension Service in cooperation with the Milk Distributors, Milk Marketing Cooperatives and Dairy Breed Associations.

The flag swings free and members of the family of the late Victor Plastow hoist it to the top of the flagpole. The flagpole was dedicated to the memory of Plastow during ceremonies at the Farm and Home Center Tuesday afternoon in conjunction with Dairy Day. Placing the flag is Mrs. Victor Plastow, left, and daughter, Mrs. Thomas Warner of Centre County. Max Smith, Lancaster County agricultural agent, assists.

Milk Leukocyte Count Cited As a Herd Management Issue

Dr. Samuel B. Guss, Penn State Extension veterinarian, spoke at Dairy Day Tuesday on the importance of good herd management practices to maintain a low leukocyte count in milk.

Leukocytes are white blood cells which resist infection and serve as the udder's first line of defense against injury. When the leukocyte count rises, the normal good taste of milk suffers, it was explained.

Dr. Guss emphasized that the responsibility for a high leukocyte count always rests with the herd owner and it is up to him to correct the situation. He urged owners to make continual checks of their milk to make sure that the count remains low. Corrective actions should be taken immediately as soon as the count begins to rise; farmers should not wait until after the problem already exists, he emphasized.

The goal of every herd owner should be negative milk or milk which has a leukocyte count under 500,000. When the count reaches 1,500,000, the point at which it is rejected at considerable financial loss to the dairyman, the problem has already gotten out of control, Dr. Guss emphasized.

He explained that a high leukocyte count, even when the rejected milk is not considered, is extremely costly to dairymen, because the factors leading to the high count result in a loss of milk production of anywhere from five to 25 per cent or more depending on the seriousness of the situation with each animal and the extent to which all the animals in the herd are involved.

He noted that procedures used in milking the herd are extremely important in determining leukocyte counts Abnormal milk herds "without exception take over eight minutes to milk" Milking should take five minutes or less, even with 16,000 pound herds, according to Dr. Guss

He emphasized that the level of vacuum in milking is extremely important Cows can be ruined with "either too much or too little," he said.

He also emphasized that by the time a herd reaches the point of a 1,500,000 leukocyte count, at least 60 per cent of the quarters of the cows in the herd are giving unsatisfactory milk

"It ought to be every dairyman's goal to have negative milk (less than a 500,000 count) on the California test or know the reason why," Dr. Guss said.

Dr Guss also noted that the present so-called abnormal milk program is basically a penalty system because producers with more than a 1,500,000 count are penalized He said he thinks a positive program of rewarding "the good producers" would be more successful

In discussing the types of treatment used to maintain a low count, Dr Guss emphasized that the wrong type of treatment can be worse than no treatment at all

If the cow kicks at you while being treated with a dip, it means teat ends are sore and probably the wrong material or wrong method is being used for treatment Improper treatment can "ruin the herd in five days," according to Dr Guss

He also noted that the dipping does "no good in less than six months and if you miss one milking, you have to start the six months all over."

He emphasized the importance of working with and getting materials through reputable dealers

He noted that some kinds of udder injections have been found to contain yeasts that cause mastitis

Also, the leukocyte count normally rises near the end of the lactation This helps explain why one herd that had several cows with a 450 day lactation had problems, he noted.

Normal good herd management practices and prompt corrective action as soon as the count moves above the 500,000 level will eliminate this management problem, according to Dr. Guss.