

Dairy conference supplies answers for service reps.

BY DONNA TOMMELLEO
HARRISBURG — A dairy farm is frequented by more than just the milk inspector, the shipper and the veterinarian.

Add to that list the constant stream of feed sales representatives, county agents, AI technicians and even loan appraisers and the dairy farm becomes one busy terminal.

Many times, such visitors are able to pin point problems on the farm by asking the right questions. But before asking the questions, these professionals who service a dairy operation, must have the answers or at least know where to find them.

Thanks to an all-day conference on Tuesday, more than 60 dairy service persons listened as experts in the field of dairy nutrition and milk quality provided them with practical answers. Conference participants were also brought up-to-date on state agricultural organizations.

Co-sponsored by PennAg Industries Association and the Penn State Cooperative Extension, the conference featured Richard S. Adams, dairy Extension nutritionist and Sidney E. Barnard, Extension food scientist.

The conference at the Harrisburg Sheraton West, was part of a state-wide education program. Beginning in late October, the conference appeared in six different locations throughout the Commonwealth.

Pennsylvania Farmer Association representative John Moulton presented a brief history of the association.

"In 1950, owners and operators of farms and farming business formed PFA," Moulton explained.

The professional organization, Moulton said, is not unlike a chamber of commerce. Moulton also reported on the progress of the 31st Annual Meeting in Hershey and updated the membership count. PFA claims more than 23,000 family members across 54 counties in the state, Moulton said.

"The purpose of the organization is to promote, protect and to represent the economic, social and educational interest of farm people

in county, state and national affairs," explained the PFA rep.

Moulton also reported that new PFA farm promotional commercials are now appearing on television in the Harrisburg viewing area.

PennAg Industries staff member Sam Sherk reported on state legislative activities.

House Bill 1351, which would name milk the official state beverage, has passed the House and is on the Senate floor, said Sherk.

Sherk expressed concern regarding the animal rights issue.

"Very shortly we'll (PennAg) be premiering a slide presentation on the welfare of Pennsylvania's farm animals from a farmer's view point," Sherk said.

Penn State Extension food scientist Sidney Barnard presented guidelines aimed at practical goals for good quality milk.

Proper cooling temperature was at the top of Barnard's list. He explained that milk storage temperature, recorded with an accurate thermometer, should be no higher than 40 degrees Fahrenheit.

"The colder we keep milk, the longer it will keep," Barnard reported.

The consumer determines milk quality by the taste, said Barnard. And although certain off-flavors can creep into milk, Barnard said, the incidence of feed/weed flavor is not much of a problem today.

However, he reported that consumer complaints continue. And the primary off-flavor is rancidity, characterized by a soapy or bitter taste. Barnard said that in 1972, only 2.2 percent of 500 milk samples proved rancid. However, in 1978 the incidence reached an alarming 33.9 percent or one out of every three samples. Today the rate has dropped to 17 percent.

The causes are traced back to the farm, unlike oxidized milk which mostly occurs under the bright lights in supermarkets.

Late lactation cows, risers or pipeline air leaks contribute to the problem of rancidity, Barnard

explained. Milk processors, he said, should try and process milk no later than 48 hours of collection.

Oxidative flavors have a cardboard or metallic-like taste. Some oxidation problems can be traced back to the farm where cows are fed stored feed. A vitamin E supplement may correct this, said Barnard.

High somatic cell counts also affect the quality of milk and antibiotic adulteration is not only dangerous for certain consumers sensitive to penicillin but quite costly to the producer, as well.

The only source of penicillin in milk is from treated cows. Prevention in the key, as no procedure will remove the antibiotic from milk.

The incidence of any adulterants in milk is very low. Extensive testing by industry and regulatory laboratories indicates less than 0.02 percent of farm samples contain detectable levels of antibiotics.

Tests used to determine the presence of penicillin can readily detect less than 0.01 I.U. or the equivalent of a 100,000 unit infusion in a quarter of one cow, which gets into a load of 45,000 pounds of milk. Farmers cannot rely on dilution, said Barnard, as milk from one quarter can be detected in the milk from 1,000 cows.

Barnard's guides for adulteration prevention follow:

Read the directions for all drugs and medicines used for dairy cattle. Use the prescribed dose and withhold all milk for the time indicated.



Sid Barnard, Extension food scientist discusses the many factors of off-flavors that effect the quality of milk. "Consumers want safe, pleasant-tasting milk with good keeping quality," Barnard explains.

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Richard Adams, Extension dairy nutritionist outlines goals for successful heifer raising. "The best plan is to get heifers into production early," he reports. Adams suggested breeding heifers between 13 to 15 months of age if they are the proper size.

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The magic number for proper milk cooling is 40 degrees Fahrenheit or under, recommended Sid Barnard. Higher temperature could lead to increased bacteria count.



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