

Hi-Protein Breeders learn about Johne's

BY ROBIN PHILLIPS
Staff Correspondent

HAMBURG — "People are starting to ask, 'How common is Johne's disease?'" began Dr. Robert H. Whitlock, New Bolton Center, University of Pennsylvania. Dr. Whitlock came to Hamburg last week to address the Hi-Protein Breeders of Southeastern Pennsylvania. Hosting a dinner meeting at Schneck's Family Restaurant, Hamburg, the Hi-Protein Breeders were looking for some answers about Johne's disease and had many questions concerning the ongoing research.

Dr. Whitlock is currently working with other researchers on the cooperative Johne's research project, being jointly studied by the University of Pennsylvania and Penn State University. Still in its initial stages, the project is revealing the causes of infection, clinical signs, methods of spread, and several suggestions for prevention. Showing slides and constantly answering breeder's questions, Dr. Whitlock provided sought-after insight into this growing concern.

"It's a relatively common problem, but many people don't recognize it," Dr. Whitlock stated. Johne's was first recorded in 1881. The first case in the United States was discovered in 1908, and the disease has since developed into a worldwide problem, according to Dr. Whitlock. Current studies indicate that up to 10 to 15 percent of dairy cattle in the United States may be infected.

There is widespread underdiagnosis of this disease, according to Dr. Whitlock, because people are reluctant to test for Johne's disease or admit that it is in their herds. Because it is contagious, if a cow tests positive, the Department of Agriculture has to report it and the health certificates of the herd will have the Johne's disease status listed on them. The owner is encouraged to sell the positive animal to slaughter to clean up his herd. If he does not sell the positive animal, he is not allowed to sell cows from the herd. There is also the threat of civil liability. Questions are raised about the responsibilities of an

owner of known infected cows that may infect a neighbor's animals or are indiscriminately sold regardless of any clinical signs of Johne's disease.

Signs of the disease include weight loss, intermittent diarrhea for weeks or months, or a tendency to develop secondary problems such as mastitis, infertility, or infections. "The whole basis of what you see clinically is because of the thickened intestinal wall," Dr. Whitlock explained.

Johne's disease is caused by an acid-fast bacterium related to the human tuberculosis organism. "This organism is so tough," Whitlock continued, "that there is no treatment for this disease at this time." The thickened intestinal wall is the result of the bacteria invading the intestinal lining of the infected animal. The intestinal lining reacts by multiplying immune cells, producing a thickness.

The continued development of this reaction causes the thickened intestine to eventually leak protein from the blood into the intestine. At this stage the animal has diarrhea and shows very poor body condition from the constant loss of weight, despite a good appetite until she goes down.

An infected animal spreads the infection in its manure. Contaminated feed and water pass the infection along. Soils can also become contaminated and contribute to the spread of the disease.

Newborn calves are the most susceptible to infection. Born into a contaminated environment, they can ingest the organisms right after birth through dirty bedding, nursing an infected dam with a manure-coated udder, or receiving contaminated colostrum.

The research findings to date indicate that the older an animal is before becoming infected, the less likely that it will show clinical signs of the disease. A slow growing organism, the disease usually takes from two years to five to eight years until any abnormalities such as weight loss or diarrhea become apparent. "It's so important to raise the calves in separate hutches," Dr. Whitlock advised breeders.

There are several tests available

to determine if the disease is present in an animal. The fecal culture is the best recognized test for Johne's disease. But Dr. Whitlock admitted that there is a backlog in the Department of Agriculture, and the tests are not currently or readily available to breeders through that office. Private laboratories throughout the United States have the testing facilities available with a per sample cost. With the fecal culture, there is a waiting period of three to five months for the results because the organism is a "slow grower." There is also a problem of "false negatives."

"If it is negative, it doesn't eliminate the possibility of the disease, we just didn't find it," Whitlock stated. He recommends a herd be cultured every six months. Positive animals should be slaughtered and negative animals recultured and tested. After a period of negative tests a herd can be identified as "clean."

He also advised the dairymen that there is an indemnity fund for this disease in Pennsylvania.

Complete results of the first year's findings of the joint research program that Dr. Whitlock is a part of will be available next March to June. More than 1500 dairy cull cows were studied in the first year and many owners will be questioned randomly.

"Right now," Dr. Whitlock continued, "we're working to compare the economic loss in a positive herd compared to a negative herd. When we get this (the complete study) done, it should be one of the best studies done on Johne's disease," he concluded.

With printed handouts and a slide presentation, he gave breeders a list of prevention practices to use in their own herds to prevent or limit the disease. They include:

- Remove newborn calves from their dams immediately after birth and raise them in separate quarters.

- Do not allow the calf to nurse, while nursing the calf may ingest Johne's bacilli from fecal contamination.

- Feed pasteurized colostrum



Dr. Robert Whitlock discussed the signs and effects of Johne's disease with the Hi-Protein Breeders of Southeastern Pennsylvania last week.

- from uninfected cows immediately after birth. Make sure the udder is clean prior to taking the colostrum.

- Protect young cattle from contaminated feed and water used for feeding adult animals.

- Do not mix replacement animals with the adult herd until they are at least one year old.

- Keep feeding areas well above ground that is contaminated with feces.

- Never spread manure on permanent pastures used for grazing cattle, especially youngstock.

- Contaminated areas, lots, pastures should be plowed, turning over at least 6 inches of soil.

- Rotate pastures to prevent adult animals from ingesting the Johne's bacilli.

- Protect young cattle from all waste and water drainage that may come from areas occupied by adults.

- Fence off or fill in any stagnant water source. Allow cattle to drink from only tanks or free flowing streams.

- Separate unthrifty cattle from the herd and handle these cattle last. Return them to the herd only when known negative for Johne's.

- Slaughter any animal with recurrent diarrhea.

After Dr. Whitlock's presentation, William Zollers, president of the group called the meeting to order and reviewed the group's efforts in the first year.

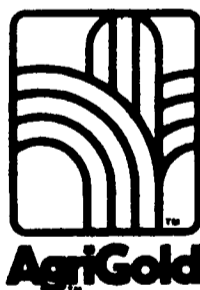
The jetshake machine, purchased early in the summer, has proved to be an excellent alternative to other beverages at meetings and youth gatherings. "But we've got to promote this thing," Zollers encouraged. Efforts to get more groups and interested persons to use it were stressed.

Carolyn Hollenbach, Bernville, 488-1789, handles requests for the machine and, for a slight rental fee, any group or individual can utilize it to promote milk.

Plans are also underway for a spring meeting to discuss protein pricing. Anyone interested in joining the Hi-Protein Breeders and their efforts to promote a better quality milk are invited to call William Zollers, R1, Mertztown, 215-682-7880.

CHEMGRO

IS PROUD
TO
ADD



TO OUR LINE OF QUALITY FERTILIZERS, PESTICIDES
AND FARM SEEDS

HERE ARE TWO GOOD REASONS TO TRY AGRIGOLD HYBRIDS:

A-6655 - 116 DAY - Responds Well To High Population & Fertility,
Out-Produced Pioneer 3358 By 17 Bu. At
51 Locations.

A-6865 - 120 DAY - Outstanding In Yield, Standability & Disease
Tolerance, Out-Yielded Pioneer 3184 By 12.2 Bu.
At 25 Locations.

After four years of intensive testing, Chemgro Fertilizer Co. is certain that Agrigold Hybrids deserve a spot in your 1985 corn hybrid line up.

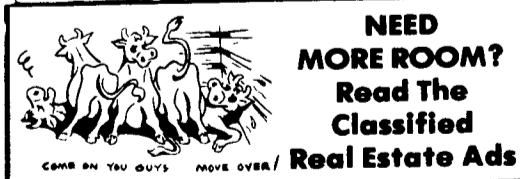
Write or call Chemgro for a complete report on Agrigold test plot yield comparisons.

RETAIL AND DEALER INQUIRIES INVITED.

CHEMGRO FERTILIZER CO., INC.

Box 218 - East Petersburg, Pa. 17520

PH: (717) 569-3296



HENRY K. FISHER INC.

SANDBLASTING AND SPRAY PAINTING

Aerial Ladder Equipment
667 Hartman Station Rd.
Lancaster, PA
393-6530