

Chronic diarrhea in dairy, beef could be Johne's disease

BY SHEILA MILLER

HARRISBURG — Does your herd of cattle have one or two head that seem to have chronic diarrhea? Are those same cattle losing weight and falling off in milk production?

"According to Dr. Max A. Van Buskirk, chief veterinarian with the state's Bureau of Animal Industry, these animals could possibly be suffering from Johne's disease (pronounced yo' nees).

"Johne's disease is an infection in cattle that causes fluid loss and interferes with the exchange of nutrients in the gut," Van Buskirk explains. "An animal could be infected with the disease for several years before any clinical signs turn up."

Clinical characteristics of the disease include severe scouring and rapid loss of body condition resulting in prostration and death. The appetite generally remains good until the animal goes down. Some animals may have intermittent diarrhea for a period of time.

The disease usually starts to appear in cattle at two years of age, peaks at three years at the time of the second calf, and drops off rapidly with relatively few cases after five years of age.

Typically one cow in the herd will have the disease symptoms, says the veterinarian, adding a farmer might only lose three, four, or six head over a period of 10 years. He points out the disease is difficult to diagnose and untreatable.

Van Buskirk explains a fecal sample can be taken and cultured by the state's diagnostic laboratory, however the incubation time for the test is 14 weeks — a long time to wait during

which time the disease can spread. It is passed from animal to animal by exposure to contaminated feces in feed and water, he says.

"Johne's disease can be managed and prevented if a farmer detects a problem and adopts the proper husbandry," Van Buskirk states.

The Bureau of Animal Industry has developed a memorandum of understanding for controlling and eradicating the disease with some of the 100 herd owners in the state whose cattle show symptoms of Johne's disease. The memo calls for the herd owner to:

- ✓ Remove calves to 'clean disinfected quarters' immediately after birth. Natural nursing must not be permitted.

- ✓ Thoroughly wash udder and sides of dam to remove all manure before drawing colostrum to be used for initial feedings of calf.

- ✓ Protect young animals from all adult feed and manure. Be sure to wear clean clothing and disinfect footwear in calf rearing quarters.

- ✓ Use only clean utensils for feeding calves. Use only clean, uncontaminated bedding. Use separate cleaning tools such as shovels and brooms in calf quarters.

- ✓ Be sure all feed is not contaminated.

- ✓ Pasture young cattle on clean areas and maintain them in winter quarters separate from adults until they freshen before adding to the milking line.

- ✓ Protect young animals from all drainage that may come from the area occupied by adult cattle.

- ✓ Remove any unnecessary shade from areas occupied by either young clean group or adult group. Allow sun to reach any

shaded areas at some time during the day.

- ✓ Fence water supply or remove any stagnant pools. Allow animals to drink from clean trough or free flowing streams.

- ✓ Separate any unthrifty animals from the herd until condition is diagnosed. In routine chores, handle these animals after clean animals. Do not return these animals to the herd unless possibility of Johne's disease is eliminated.

- ✓ Use only artificial insemination since bulls can transmit this disease during breeding. The disease-causing organism has been found to inhabit the seminal vesicles of 100 percent of infected bulls examined. The organism can survive in semen prepared for artificial insemination. (All Wisconsin based bull studs are cultured annually and are negative.)

- ✓ Maintain adequate nutritional requirements.

Van Buskirk notes the disease has been around for more than 20 years and seemed to be more prevalent in the Guernsey breed at one time. He quickly emphasizes it is not limited to this breed of dairy cattle and can be found in beef cattle, too.

Once the disease has been diagnosed through fecal sample, Van Buskirk's bureau recommends all positive animals and their offspring be removed from the herd and isolated. Any animals showing signs of recurrent diarrhea should be sent to slaughter under permit immediately. Selling infected animals for dairy or breeding purposes violates the quarantine regulations and subjects the owner to civil liability, he says.

Since the disease-causing bacterium is in the environment (soil) where the infected animal was kept, Van Buskirk admits clean up is difficult.

The chief veterinarian cautions farmers about vaccinating for Johne's disease.

"At this point, the vaccine is purely experimental," he observes. "There's a controversy over whether it is worth all the trouble it causes."

According to Van Buskirk, the commercially-available vaccine causes a severe reaction in the animal. A lump forms where the shot was given and an abscess can develop. And, after being vaccinated for Johne's disease, the animal will react positively to a tuberculosis test.

"Personally, I have to take a conservative position when it comes to recommending vaccinating for Johne's disease," Van

Buskirk says.

For those farmers who signed the Johne's disease memorandum of understanding, indemnity payments were offered on cultural positive animals as long as the farmer followed the prescribed husbandry practices. However, Van Buskirk notes no more memos will be written until the department "better defines the program."

"The indemnity program is 'if' he says. "What we need is to expand our capability at the laboratory level for testing for Johne's disease. With that 14-day incubation, we could get a pile of fecal samples in a short time.

"And we're not dealing here with the kind of disease where the animal promptly gets sick — it seems to show up under stress, such as calving and changes in feed or environment."



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