

# Highlights of the New Minnesota Paratuberculosis Rules Revised March 17, 1986

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In March of 1986, new regulations regarding the control of Johne's disease or paratuberculosis in cattle went into effect in the state of Minnesota. The new regulations contain a number of major changes which will have a significant impact on practitioners and their cattle clients with regard to the diagnosis and control of Johne's disease. The new regulations are provided here in toto following a summary description of the important highlights.

1. *Elimination of quarantine.* Johne's disease continues to be a reportable disease but reporting no longer results in quarantine. No restrictions are placed on the sale of animals from known positive herds. This is undoubtedly the most controversial aspect of the new regulation. Critics of this provision assert that the state has a responsibility to control the spread of known contagious disease and the quarantine was effective in that regard. Advocates of the new provision contend that the quarantine actually provoked the spread of Johne's disease because the diagnosis was purposely avoided in order to avoid quarantines and many infected animals were being sold undetected anyway. Recent studies on the prevalence of Johne's disease support the argument in favor of quarantine repeal. The probable herd prevalence of Johne's disease, based on slaughter house studies, far exceeds the number of herds ever quarantined under the old rule.

It is hoped that the new rule will encourage the diagnosis of Johne's disease so that researchers and state regulatory officials can better assess the true extent of the disease in the state and thereby formulate appropriate regulatory programs.

Practitioners are encouraged to counsel clients with positive herds that all cattle sold should be sold to terminal markets and not resold for dairy use. Despite the lack of quarantine, farmers are likely to be subject to civil liability if they knowingly sell positive or suspect paratuberculosis cows to other farmers. This should be adequate incentive for voluntary compliance.

2. *Use of paratuberculosis vaccine.* The new regulation permits the use of a killed paratuberculosis vaccine to be administered only to calves between one and thirty-five days of age and only in confirmed paratuberculosis positive herds which have tested negative for tuberculosis. Once these criteria are met, the vaccine is available

for use only by veterinarians who have received a permit for its use in a specific herd from the Board of Animal Health.

In the author's opinion, calfhood vaccination alone is not an effective means of eliminating Johne's disease. I have already seen adult cattle with confirmed clinical Johne's disease that were official calfhood vaccinates. Vaccinal protection is not absolute. If the vaccine is to be a useful adjunct to a control program, identification and culling of infected adults and improvements in general sanitation and calf rearing must accompany the vaccination program. Guidelines for the control of Johne's disease are included at the end of this article.

3. *Recognized Tests.* The agar gel immunodiffusion (AGID), test has been identified as an official test for diagnosis of paratuberculosis in Minnesota in addition to the existing tests; i.e., the caudal fold intradermal johnin test, the cervical intradermal johnin test, the intravenous johnin test, the fecal culture test, and histopathologic diagnosis.

Practitioners should be aware that the AGID test is most useful in rapidly confirming active clinical cases of Johne's disease. Like fecal culture, the AGID test is less reliable in identifying subclinical infected animals. False negative results can be common but false positive results are extremely rare.

Unfortunately, the revision of the paratuberculosis rules in Minnesota has preceded the commercial availability of the AGID test. The Minnesota State Diagnostic Laboratory is not yet running the AGID test because a federally approved antigen is not yet available. It is likely that sometime within the next 6 weeks antigen will be available as well as an entire test kit for use by practitioners in their practices.

4. *Certification of Paratuberculosis Free Herds.* The new rules provide criteria by which a cattle herd can be identified as Certified Free of paratuberculosis. The minimum time to achieve certification would be 2 years and 3 months in a herd which starts out as Johne's disease free, since 3 consecutive herd-wide negative tests taken 12 months apart are required and it takes 12 weeks for the final culture results to come back. Annual testing is then required for certification renewal. Although this seems like a long time, there may be a payoff for purebred cattle

breeders confident that their herds are Johne's disease free. Buyers may be willing to pay a substantial premium for known negative animals.

For cattlemen with known infected herds that want to clean up and work towards certification, the practitioner should advise that if an aggressive control program is instituted, it may take 2-4 years to achieve the first herd-wide negative test, plus the subsequent fifteen months to achieve two more negative tests for certification. The cost of testing must be assumed by the farmer.

5. *Classification of Herds.* In addition to the certified free herds, all other cattle herds in the state will be classified with regard to Johne's disease. The vast majority of herds will be in and undoubtedly remain in the *Paratuberculosis unknown status herd* category. Herds which have been diagnosed as positive but have not agreed to work toward certification will be classified as a *Paratuberculosis positive herd*. Herds working towards certification after being diagnosed as positive, will be classified as a *Paratuberculosis positive program herd*.

These highlights should help you understand the important new features of the revised Minnesota rules on paratuberculosis. Below are guidelines for undertaking a paratuberculosis control program.

#### **Guidelines for Johne's Disease Eradication**

1. Remove calves to clean quarters immediately after birth. Natural nursing must not be permitted.
2. Thoroughly wash udder and sides of dam to remove all manure before drawing colostrum to be used for initial feedings of calf.
3. Protect young animals from all adult feed and waste material. Be sure to wear clean clothing and footwear in calf rearing quarters.
4. Use only clean utensils for feeding calves. Use only clean,

uncontaminated bedding. Use cleaning tools maintained for clean group only.

5. Be sure that all feed is uncontaminated.
6. Pasture on clean, uncontaminated areas and maintain in winter quarters separate from adults until necessary to add to the milking line.
7. Protect young animals from all drainage that may come from area occupied by adult cattle.
8. Remove any unnecessary shade from areas occupied by either the young, clean group or the adult group. Allow sun to reach any shaded areas at some time during the day.
9. Water supply—fence or remove any stagnant pools. Allow animals to drink from uncontaminated tanks or free flowing streams only.
10. Separate any unthrifty animals from the herd until condition is diagnosed. Handle these animals after clean animals in routine chores. Do not return these animals to the herd unless possibility of Johne's disease is eliminated.
11. Remove immediately for slaughter any animal showing signs of recurrent diarrhea; also their offspring.
12. Culture all mature animals in infected herds twice annually.
13. Remove all culture positive animals and their offspring from the herd.
14. Use semen from noninfected bulls. Extreme care must be taken that a bull comes from a Johne's negative herd, and frequent changes in sires are desirable.
15. Clean and disinfect areas where Johne's infected animals have been kept with approved disinfectant. (ortho-phenyl-phenate; Environ<sup>o</sup>)
16. If necessary to purchase replacement animals, obtain mature individuals from herds with no history of Johne's disease.
17. Sale of infected animals for dairy or breeding purposes may subject the owner to civil liability.