

# Practitioners Experience with *Mycoplasma bovis* Outbreaks – Dairy Cows

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## Abstract

Mastitis due to infection with *Mycoplasma bovis* is a fairly common occurrence in large, expanding dairy herds. While mycoplasma infections eventually show up in almost all herds, including “closed” herds, it is more commonly seen in herds containing cattle purchased from unknown sources. *Mycoplasma mastitis* can be extremely contagious and has earned a reputation for causing major outbreaks of untreatable mastitis. Whether or not a single mycoplasma infection develops into a major herd outbreak depends largely on the milking and hospital procedures used by the dairy.

## The Practitioner Experience

As an example, I present a 1500-cow northwest Holstein dairy which experienced a serious mastitis outbreak in June 2001. The herd regularly purchased two year old springers and followed a regular culture program for all fresh cows and new mastitis cases. On June 20, the milk quality lab<sup>a</sup> identified a single cow with a “low” positive mycoplasma infection. On June 21, they diagnosed a second “high” positive mycoplasma cow. On June 28, a third high positive cow was diagnosed, later to be typed as *Mycoplasma bovis*.<sup>b</sup> On June 28, a whole-herd culture was performed and a total of 20 additional cows were identified with mycoplasma infections. On July 8, eight more cows cultured-positive for mycoplasma following the herd culture. On July 26, a follow up whole-herd culture was elected by the dairyman and no additional positives were found at that time or throughout the remainder of the year. As mycoplasma mastitis is not treatable and we feel cows can

be a reservoir for infection for long periods of time, our preference is to cull all culture-positive animals as soon as possible; a total of 31 animals were culled for this herd outbreak.

When the increase in mycoplasma positive cows occurred and the first herd culture was ordered, the hospital milking and treatment procedures were critiqued and appeared to be satisfactorily clean and careful. However, in discussions soon after with the dairy manager, it was brought to our attention the herdsman had been infusing some mastitis quarters with dexamethasone. This practice was not at any time approved by the dairy ownership. The herdsman knew there was potential for contamination of product and equipment with mycoplasma and was therefore using a new needle, syringe and bottle of dexamethasone each time he performed an infusion. Even with this level of care, it appears almost certain to be the primary cause of mycoplasma spread from cow-to-cow. Most of the positive-culture cows on the herd culture had been previously cultured negative as a new mastitis case, and once clinical signs improved were returned to a milking string, only to culture positive on the herd culture.

Most herds on surveillance programs identify a mycoplasma positive cow occasionally. Whether or not these individuals lead to herd outbreaks usually depends on the sanitation and care of their intramammary treatment procedures and whether they are adhering to labeled, individually prepared intramammary products.

## Footnotes

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<sup>b</sup> U.C. Davis Milk Quality Laboratory, Davis, CA