

# **Mycoplasma in heifers**

Mycoplasma continues to be a frustrating disease in the dairy industry. In cows, several different species of Mycoplasma can cause mastitis, pneumonia, arthritis, abortion, and other disease syndromes. In young animals, Mycoplasma may cause a range of disease syndromes as early as 2 to 3 weeks of age.

One of the most interesting facts about Mycoplasma is it is the smallest, free-living organism known to cause disease in animals. It is a unique bacterium in that it does not have a cell wall. This makes it resistant to some classes of antibiotics like penicillin's and cephalosporin's.

Mycoplasma bovis is the most common Mycoplasma pathogen to affect young dairy calves by causing pneumonia, conjunctivitis, ear infections, abscesses, and arthritis.

## **Route of Infection**

So how are calves infected with Mycoplasma? They can become infected:

- by coming in direct contact with the dam at birth,
- by drinking contaminated milk, nose-to-nose contact with other calves,
- by ingestion of the organism from contaminated nipples and buckets, and
- through the environment.

Once the organism enters the body, it gets into the bloodstream. Once in the bloodstream, it can spread to different tissues causing disease. Conjunctivitis, head tilts, and droopy ears caused by middle ear infections are commonly the first signs of a Mycoplasma infection in young calves.

Often in severe cases the infection can spread through the blood into the joints causing polyarthritis. In heifer calves the organism can colonize in the mammary tissue causing Mycoplasma mastitis when they freshen.

Treatment of Mycoplasma-infected calves can be very frustrating because, due to the nature of the organism, many antibiotics are ineffective at treating Mycoplasma. Review possible treatment plans (choice of antibiotic, dose, duration of treatment and route of administration) with your herd veterinarian.

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## Tips for Prevention

Biosecurity and management are vital in control and prevention of Mycoplasma infections. Here are some important tips for prevention:

- Feed high quality, clean colostrum. Do not feed colostrum from known Mycoplasma cows.
- Do not feed raw milk from known Mycoplasma cows.
- If feeding waste milk, pasteurize before feeding following time and temperature guidelines.
- Minimize cow-calf contact especially for known Mycoplasma dams.
  
- Good ventilation in calf barns.
- All-in, all-out calf facilities.
  
- Clean and disinfect hutches and barns between calves or groups of calves.
- Minimize calf-to-calf contact.
  
- Provide a dry environment for calves.
- Prevent contact between sick animals and calves – isolate sick calves if possible.
  
- Clean and disinfect pails, nipples, tube feeders, etc.
- Treat infected calves immediately upon diagnosis.
  
- Feed enough milk/milk replacer so that calves are doubling their birth weight by 60 days.
- Feed clean water and calf starter grain free choice from day two of age.
  
- Consult with your veterinarian to be sure that your vaccination schedule for respiratory disease is adequate.

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