



## Mycoplasma

### What is it?

- Mycoplasmas are a group of very small bacteria which have unusual characteristics making them different from most other bacteria.
- Mycoplasma bacteria have special defense mechanisms that make it challenging to diagnose and treat.
  - It lacks a cell wall so that certain widely used antibiotics are not effective because most antibiotics attack the cell wall.
  - It also has the ability to hide away from the immune system so that infections are difficult to fight.
  - Mycoplasma has the ability to create conditions that allow evasion from antibiotic treatment.
- Mycoplasma is a bacterium that can cause pneumonia, arthritis, reproductive problems and middle/inner ear infections.

### What symptoms are typically seen in Cervid?

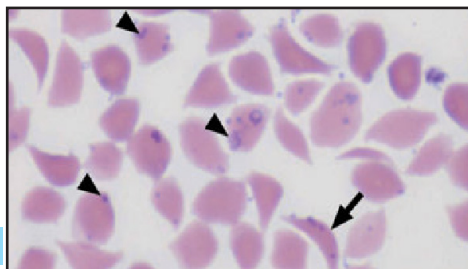
- Mycoplasma bovis does not cause disease in humans. Studies have mostly been on cattle but in a study in 2003 in the Journal of Wildlife Diseases a farmed cervid facility found mycoplasma bovis in fawns with severe respiratory disease resulting in death.
- This bacterium has been more prevalent in the deer industry recently.

### How is it spread?

- Mycoplasma is spread from one deer to another (or from cattle to deer) through repeated contact over short distances.
- The agent can also shed from infected animals through eyes, nose, vagina, rectum, semen and milk.
- Animals do not need to be showing signs of sickness for it to spread.
- Mycoplasma bovis has been found to survive up to 6 months at 40 degrees Fahrenheit in laboratory conditions, 20 days in straw and over 2 weeks in water. Even in cold water the organism can survive 1 to 2 weeks on bedding and in water.

### Signs and Symptoms

- Pneumonia, especially pneumonia that is resistant to treatment
- Slight clear nasal discharge
- Puffing out of cheeks when breathing
- Dry cough with neck extended down and out from the body



- Elevated body temp.
- Ear Infections
  - Ear drop on one side or the other
  - Head tilt and possible facial paralysis
- Joint Infections
  - Lameness
  - Often a sign of mycoplasma is pneumonia accompanied by lameness, unresponsive to antibiotics

### **Disease Management**

- Do not keep cattle and deer together, mycoplasma is very common in cattle and can be spread from cattle to deer
- Don't feed poor quality hay or feed. Animals with poor nutrition are known to be more susceptible to disease.
- Minimize stress on your deer or elk.
- Quarantine new animals for 30 days before introducing to your herd and vaccinate before transferring them in.
- Introduce and maintain a vaccination protocol.

### **Points to Remember**

- Mycoplasma bacteria lack a cell wall and therefore are not easily treated by antibiotics
- In Cervid, Mycoplasma mostly cause Pneumonia
- Mycoplasma can survive varying temperatures and longer periods of time in the environment
- This bacteria is spread from animal to animal
- Vaccination is your best defense to Mycoplasma, PV2 covers the Mycoplasma bacterin

