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# NEWS

*A Newsletter from International Canine Genetics, Inc.*

## **Canine Mycoplasma: Its Role in Reproductive Disease**

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Mycoplasma infections have been implicated as a cause of infertility in both bitches and stud dogs. As a result, mycoplasma continues to receive attention as a potential concern for purebred dog breeders. The following article discusses what is currently known about canine mycoplasma infections and outlines a management approach for breeding animals.

### **WHAT IS MYCOPLASMA?**

Mycoplasmas are bacterial organisms that, because of their extremely small size, have been placed in a separate class. Also, unlike any other bacteria, mycoplasmas lack a rigid cell wall which makes them unaffected by antibiotics that act by invoking cell wall damage (for example, penicillin). Mycoplasmas are extremely fastidious organisms that are difficult to culture without special media, and even then may be difficult to recover. Ureaplasmas are a distinct type of mycoplasmas that have been subclassed and are identified by their own name.

### **MYCOPLASMA AS PART OF THE NORMAL FLORA**

Several mycoplasma species have been found to be normal inhabitants of the

upper respiratory and genital tracts of dogs and cats, and as a result they can be routinely isolated from oral, nasal, conjunctival and genital mucous membranes. Several studies have specifically looked at the frequency of mycoplasma recovery from the genital tracts of fertile versus infertile bitches and stud dogs, and no significant difference has been found.<sup>1,2</sup> Therefore, recovery of mycoplasma from a vaginal or semen culture does not always correlate to reproductive disease, and likewise does not always need to be treated. Since these organisms exist in the respiratory tract as well as the reproductive tract, aerosol transmission from dog to dog (airborne, licking, sniffing, etc.) is probably more frequent than venereal transmission.

### **WHEN TO WORRY ABOUT MYCOPLASMA?**

While mycoplasmas may be normal inhabitants of the reproductive tract, they have been associated with infertility, lesions of the reproductive tract and sperm abnormalities.<sup>3,4,5</sup> As with many opportunistic pathogens (organisms that may cause disease but frequently don't), clinical disease often results when an animal is under stress and/or exposed to high numbers of organisms. Close

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