Brucellosis (*Brucella suis*) in dogs

July 2017, Primefact 6/450, first edition
Veterinary Officer, Animal Biosecurity ad Welfare, NSW DPI

**Important user information**
- Infected dogs may potentially spread the infection to humans and other animals.
- Infected dogs should be euthanased or treated with antibiotics AND desexed – there are no treatments that guarantee to cure infection in dogs.
- All other dogs in contact with the infected dog should be tested and considered infectious until negative.
- People who develop symptoms after contact with potentially infected animals should seek prompt medical advice.

**Introduction**
Brucellosis is a disease caused by infection with a type of bacteria (*Brucella*). This disease is common in many parts of the world, but it is rare in Australia. *Brucella* bacteria infect a range of animals.

*Brucella suis* usually infects pigs. *Brucella suis* infection is widespread in Queensland’s feral pig population and it has also been detected in the feral pig population in northern NSW.

*Brucella suis* can be transmitted to people from animals. Further information on risk to humans can be found at [NSW Health Brucellosis & Feral Pig Hunting](#) and [NSW Health Brucellosis Factsheet](#).

**How do dogs become infected?**
Brucellosis (*Brucella suis*) has been detected in dogs that have been pig-hunting and dogs that have been fed raw feral pig meat.

It is possible that a dog may be infected through contact with an infected dog or its body fluids – for example when bred/mated and at the time of birth.

**How can I protect my dogs?**
- Do not feed dogs (or other domestic animals) raw feral pig meat, bones, blood, offal, testicles or other reproductive organs.
- Do not breed from dogs suspected or known to be infected with *Brucella suis*.
- Practice safe pig hunting and do not allow dogs to play with or feed on animal carcasses.
- Wash dogs after each hunt – preferably wash dogs before leaving the hunting site, while wearing protective gear, and away from others.
- If dogs are wounded during a hunt, use protective gear while administering first aid (gently wash wounds with clean water and cover with dressings) and take the dog to a veterinarian – avoid stitching wounds.

**What are the signs in dogs?**
Dogs infected with *Brucella suis* can remain bright, alert and show no obvious signs of infection.

Dogs can also display a range of signs including the following:
- Enlarged testicle/s.
- Abortion.
- Back pain.
- Limping.

Consult a veterinarian if you suspect brucellosis in your dog/s.

**Diagnosis in dogs**
Your veterinarian will collect and submit samples for testing. Unless the infective bacteria can be
grown from tissue, the dog’s history, signs and blood test results must all be considered.

A single definitive blood screening test is not available for *Brucella suis*. Blood tests will be reported as positive, inconclusive or negative. Dogs with inconclusive results should be retested in 6 weeks.

NSW DPI will pay the laboratory fees for testing dogs suspected of *Brucella suis* infection. If the dog tests positive, NSW DPI will also pay the laboratory fees for testing other in-contact dogs from the same owner. Any additional costs are the responsibility of the dog owner.

What if my dog tests positive for *Brucella suis*?

*Brucella suis* may be shed in urine, saliva, reproductive tissues and fluids (e.g. vaginal discharges, semen or when aborting or whelping). Contact with these fluids, wastes or tissues may lead to infection in people or other animals. Currently, it is not known how long dogs remain infectious or how great the risk is to people, pigs and other dogs through contact with urine, saliva and reproductive materials.

Because of the potential risk, it is highly recommended to:

1. Either euthanase or treat AND desex the infected dog.
2. Test all other in-contact dogs.

**Treatment** includes a long course of antibiotic therapy AND desexing. At the completion of the antibiotic course, the dog should be reassessed and re-tested by a private veterinarian.

There are no treatments that guarantee to cure brucellosis infections in dogs. Treatment may be ineffective or dogs may initially respond to treatment and then relapse. If a treated dog relapses (i.e. shows signs of illness of brucellosis at a distant time in the future), the dog should be taken to a veterinarian as soon as possible for further assessment.

**Euthanasia** is the only guarantee to prevent spread to people or other animals.

It is also recommended that dogs that have contacted the infected dog are tested to check if they have been infected; these in-contact dogs should be considered infectious until final test results are returned. In-contact dogs should be tested when the infected dog is initially diagnosed and again six weeks later. If they are still negative at the second test, they have not been infected by the dog.

What precautions should be taken around infected dogs?

- Keep infected dogs isolated, away from all other animals
- Avoid all unnecessary contact with infected dogs
- Pregnant women and children are vulnerable to severe disease, and should avoid all contact with infected dogs, other dogs that have been in contact with the infected dog, and pig hunting dogs
- People who develop symptoms after contact with potentially infected animals should seek prompt medical advice and mention their exposure to animals.

**NSW legislation**

Brucellosis (*Brucella suis*) is a notifiable disease under NSW legislation. This means there is a legal obligation to notify authorities if you know or suspect that an animal has this disease. You can report suspected or confirmed brucellosis in animals in one of the following ways:

- Phone your Local Land Services on 1300 795 299; or
- Contact NSW Department of Primary Industries

**More information**

For further information, please refer to:

- ‘Brucellosis (*Brucella suis*) in pigs’ primefact
- ‘Being a responsible pig dogger: Hunt safe, hunt legal’
- NSW Health Brucellosis Factsheet
- NSW Health Brucellosis & Feral Pig Hunting

If you have any queries in regard to the content of this factsheet, please contact Kate Wingett, Veterinary Officer, on (02) 6391 3717

**Acknowledgments**

Dr Kelli Johnston authored the majority of this Primefact while employed as a veterinary officer for the NSW Department of Primary Industries

© State of New South Wales through the Department of Industry, Skills and Regional Development, 2015. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (September 2016). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user’s independent advisor.