

Responding to emergency animal diseases

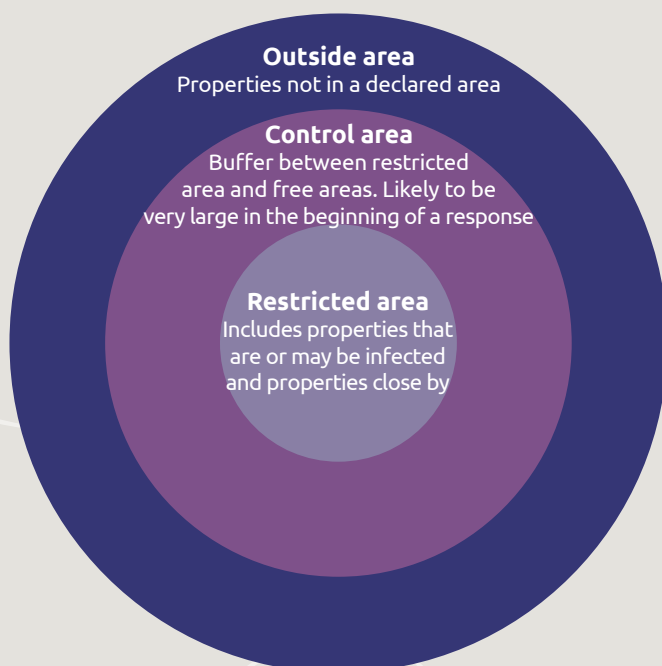
THE
TERRITORY

An emergency animal disease (EAD) outbreak could seriously damage the Australian economy, environment, livestock industries or impact human health. State or territory government is responsible for managing EAD outbreaks in their jurisdictions. Responding to EADs requires coordination and significant resources from all tiers of government and industry.

EAD responses are managed according to the nationally-agreed on Australian Veterinary Emergency Plan (AUSVETPLAN) arrangements. Primarily, Australian policy is to eradicate incursions of exotic emergency animal disease as quickly as possible by establishing **declared areas** and implementing a number of **control measures**.













Declared areas

Declared areas are established during a response to prevent the spread of disease.





Control measures

	National livestock standstill	Specific livestock species must not be moved. This may be for an initial 72 hours, but could be extended depending on the situation.
	Quarantine and movement controls	Restrictions on movements (onto and off premises) of animals, vehicles, equipment, animal products, animal waste and other items that could be contaminated.
	Biosecurity requirements for people	Required decontamination or changes of clothing of and footwear when people move on and off premises.
	Tracing	Reviewing movements of animals, people and objects on and off infected premises to help identify where infection may have come from and spread to.
	Surveillance	Checking for signs of disease or contamination, investigating anything suspicious and taking samples for laboratory testing if needed.
	Vector control	Control of insects which could spread the disease.
	Treatment of infected animals	Treatment of infected animals where an effective treatment is available.
	Vaccination	For some diseases, vaccines may be available and used to create a barrier of immune animals between infected and uninfected areas.
	Destruction	Culling of animals that are infected or are a high disease risk; high risk objects that can't be decontaminated may also be destroyed.
	Valuation and compensation	Compensation may be available for animals that have died from the disease or animals or property that has been destroyed as part of the official disease response. This is governed by state and territory specific legislation.
	Disposal	Biosecure disposal of carcasses and animal products or by-products that are or might be contaminated.
	Decontamination	Chemical or other treatment of premises, vehicles, equipment, clothing, footwear and other objects that may be contaminated.



Biosecurity

Department of Industry, Tourism and Trade

Foot-and-mouth disease

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Foot-and-mouth disease (FMD) is caused by a virus that can infect cloven hoofed (two-toed) animals including cattle, buffalo, pigs, goat, sheep and deer. An incursion of FMD in Australia would be devastating for all livestock industries and impact other sectors such as tourism.

How could FMD enter Australia and how does it spread?

- FMD is one of the most contagious animal diseases. Infected animals excrete the virus in fluid from ruptured blisters, exhaled air and body fluids.
- The virus is spread between animals by direct contact with an infected animal or via contaminated equipment or clothing. It can also be spread in the air through expelled air from an infected animal. Pigs are known to produce a lot of the virus when infected and are a high risk spreading FMD to other animals.
- FMD virus can survive in meat and dairy products. The most likely way FMD could enter Australia is via the illegal importation of contaminated products from overseas.

What you can do

- Never feed pigs any kitchen scraps. These could have products contaminated with the virus.
- Keep pigs out of dumps.
- Never bring any meat or animal products back into Australia if you've been travelling overseas.
- If you have been hiking, or visiting farms or rural areas overseas you must declare this on entry.
- If you have any young animals that die suddenly or you suspect one of your animals may have blisters (formed or ruptured), call the Emergency Animal Disease (EAD) Hotline immediately 1800 675 888.

 Join the biosecurity Facebook group @biosecNT
industry.nt.gov.au



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What to look for

In all species, high death rates in young animals is common.

Cattle and buffalo

- lethargic and reluctant to walk
- increased drooling
- blisters or ruptured blisters in the mouth and on the tongue, teats of females, between the toes and around the top of the hoof.
- rapid weight loss.

Pigs

- lameness caused by blisters
- blanched (white) looking skin around the hoof
- pigs may appear to want to crawl instead of walk due to painful hooves
- blisters on snouts
- in severe cases the hoof may appear to be detaching from the toes.

Sheep and goats

- FMD in sheep and goats have very mild and easily missed clinical signs
- fever and lameness in one or more legs
- blisters may form in the mouth but are not as noticeable in comparison to cattle.



Photo: DEFRA UK. Lesions on cattle tongue.



Photo: Merck Vet Manual. Lesion on pig hoof.

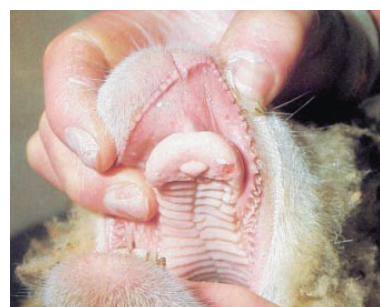


Photo: business Queensland. Lesion on sheep tongue.



Lumpy skin disease



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Information for cattle and buffalo producers

About the disease

Lumpy skin disease (LSD) is a devastating viral disease of cattle, water buffalo and banteng. The disease is not present in Australia but is in our region, and spreading.

LSD is a highly infectious disease spread by a pox virus, which is mostly spread by biting insects, such as flies, midges, mosquitos and possibly ticks. The disease can also be spread by fomites through such things as contaminated equipment and in some cases directly from animal to animal. It does not pose a risk to human health. For more information see nt.gov.au/lumpy-skin-disease

Disease impacts

If LSD were to occur in Australia, this would have significant consequences for our beef, water buffalo, and dairy cattle industries, along with substantial trade impacts if Australia was no longer recognised as being free from LSD. If wild cattle, buffalo and banteng populations in northern Australia's extensive rangelands were exposed to LSD, reservoirs of the virus could establish. If this were to occur, eradication would be extremely difficult.

Prevention activities

The Northern Territory (NT) and Australia have well-developed disease response arrangements in place that involve all levels of government and the livestock industries. The Australian Veterinary Emergency Plan (AUSVETPLAN) contains the nationally approved approach for the response to an outbreak of LSD in Australia. In the event of an LSD outbreak, the official response policy of Australia is to eradicate the disease in the shortest possible time. There is currently no LSD vaccine approved for use in Australia.

Early detection of LSD is vital, and all NT producers must play an important role by being vigilant and reporting any signs of disease.

What to look for

Cattle, water buffalo and banteng infected with LSD will usually develop a fever, depression, and skin nodules that are:

- 2 to 5cm, round, firm and slightly raised
- Usually found on the head, neck, limbs, udder and under the tail area.

The skin nodules may become scabby, ulcerated and infected, and cause severe pain and inflammation. Animals can become lethargic and go off their feed, and some may die.



What to look out for (cont)

Some common diseases in the Territory, such as bovine herpes virus 2, warts, mange, ringworm and rain scald, could be confused with LSD. As LSD can only be diagnosed with a skin biopsy sample tested at a laboratory, it's vital that samples are taken in all cases of skin disease in cattle, buffalo and banteng.



LSD in cattle overseas



LSD in cattle overseas



Bovine herpes virus 2

What NT producers can do

- Never bring illegal goods into Australia from overseas, including cattle hides or skins.
- Make sure any cases of skin lumps and scabs in cattle, buffalo and banteng are thoroughly investigated by a veterinarian or livestock biosecurity officer.
- If you cannot get a professional out to take samples, use the free LSD skin sampling test kit to take your own.
- Report unusual disease in cattle, buffalo, banteng or other livestock to the Emergency Animal Disease Hotline **1800 675 888**.

For more information, and to obtain a free LSD skin sampling test kit, contact your local biosecurity office:

- **Darwin** 8999 2123
- **Katherine** 8973 9716
- **Tennant Creek** 8962 4458
- **Alice Springs** 8951 8181

More information about LSD and Australia can be found at:

awe.gov.au/biosecurity-trade

More information about LSD and the Territory can be found at:

nt.gov.au/lumpy-skin-disease



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Japanese Encephalitis surveillance



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Information for pig owners

- Japanese encephalitis is an acute mosquito-borne viral disease that can cause reproductive losses in pigs and encephalitis (rare but serious infection of the brain) in other susceptible species. The disease occurs mostly in pigs and horses. In rare instances, it can cause disease in other animals and people.
- Japanese encephalitis virus (JE) has been detected in Australian piggeries interstate. JE is not a food safety concern, and pork products remain safe to consume.
- This is an evolving situation.
- The Northern Territory Government (NTG) is increasing surveillance for JE in the Territory, and is inviting pig owners to participate in this voluntary monitoring program.
- If you want to take part, you can submit healthy pigs for blood testing and allow mosquito traps to be set up on or near your property by calling your local livestock biosecurity branch.

Testing pigs

- The NTG's livestock biosecurity and veterinary officers will attend your property to collect blood samples from your pigs. Weaner piglets which are 3 – 6 months old are best, but pigs of different ages can be sampled too.
- The procedure is quick and painless.
- Staff are trained in livestock handling and will use specialised equipment and low stress handling methods to catch and hold pigs. They may need to use a soft rope snare and pig boards to hold pigs still while the samples are taken.
- Blood samples will be taken from the jugular or ear vein.
- Staff will test the samples in a laboratory to see if the pigs are currently infected with JE, or have antibodies to the virus. If your pig has antibodies, it might mean they have been exposed to the virus previously.
- It can take up to 3 weeks for the test results. Staff will call you to let you know the results. If you have any questions, you can call your local livestock biosecurity branch.

Testing mosquitoes

- NTG staff might also contact you to get permission to set a mosquito trap on your property.
- The mosquitoes will be tested for JE virus.
- If you have questions about mosquito trapping and test results, you can call 8922 8807.



What happens if JE is found in my pigs or near my property?

- NTG staff will call you with the results of the tests. They will tell you if the results show evidence of JE in the pigs or mosquitoes on or near your property.
- There is no specific treatment for JE in pigs.
 - If your pig is healthy, there is no need for any treatment.
 - If your pig becomes sick, talk to your vet about how to care for your animal. If you have more than one pig, you may want to separate the healthy and infected animals.
 - Pig owners who have a pig that gets very sick from JE may wish to humanely euthanise it.

Reporting

- Japanese encephalitis is a notifiable disease in animals as well as humans.
- This means if you notice anything unusual or suspicious in your animal, you must call the Emergency Animal Disease Watch Hotline on 1800 675 888.
- Call the Centre for Disease Control to report JE in people on 1800 008 002.

For more information

Contact your local Livestock Biosecurity Branch by calling:

- **Darwin:** 8999 2123
- **Katherine:** 8973 9716
- **Tennant Creek:** 8962 4458
- **Alice Springs:** 8951 8181

More information about JE in Australia can be found at:

outbreak.gov.au

More information about JE in the Territory can be found at:

nt.gov.au/japanese-encephalitis



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Japanese encephalitis virus

Information for pig and horse owners

About the disease

Japanese encephalitis virus (JEV) is an acute mosquito-borne viral disease that can cause reproductive losses in pigs and encephalitis (rare but serious infection of the brain) in other susceptible species.

The disease occurs mostly in pigs and horses. In rare instances, it can cause disease in other animals and people. Animals and people become infected through the bite of infected mosquitoes. The normal lifecycle of Japanese encephalitis sees the virus passed between waterbirds and mosquitoes, which may then spill over to pigs and horses.

Disease impacts

JEV has been detected in Australian piggeries interstate and was declared a Communicable Disease Incident of National Significance in March 2022.

JEV has been detected in a large number of feral pigs across the Top End since March 2022. Surveillance activity continues across the Territory.

JE is not a food safety concern, and pork products remain safe to consume.

What to look for

Pigs

In pigs the most common clinical signs are mummified and stillborn or weak piglets, some with neurological signs. Adults do not typically show clinical signs of disease; however, boars may experience infertility, fluid retention (oedematous) and congested testicles.

Horses

In horses many cases are subclinical, meaning they are infected but show no signs of disease. For those cases that show signs of disease, most are mild; however, more severe encephalitis can occur which may be fatal. These signs include:

- fever
- jaundice
- lethargy
- anorexia
- neurological signs such as incoordination and difficulty swallowing

Prevention

How to protect pigs

If you work with pigs or have contact with pigs you should:

- take steps to control mosquitoes; and
- continue to use effective biosecurity measures

How to protect horses

If you own horses, you should protect them from mosquito bites by covering them with:

- a light cotton rug
- a fly mask
- a safe insect repellent (don't not spray around or above the eyes)



Extra precautions include:

- stabling horses between dusk and dawn
- horses being left outside overnight can wear a lightweight permethrin (insect repellent) fabric

How to protect yourself

- Wear a loose-fitting, long-sleeved shirt with long pants, and covered shoes
- Use repellents that contain diethyltoluamide (DEET), picaridin, or oil of lemon eucalyptus
- Apply insect repellent to all exposed skin during your workday
- Read the repellent label for reapplication times and re-apply accordingly



Report unusual signs of diseases in animals

If you notice any unusual signs in animals you must:

- contact the emergency animal disease watch hotline on 1800 675 888 or
- contact your local vet or livestock biosecurity officer

More information

For more information contact your local vet or local biosecurity office:

- Darwin 8999 2123
- Katherine 8973 9716
- Tennant Creek 8962 4458
- Alice Springs 8951 8181

Visit nt.gov.au/Japanese-encephalitis

For more information, go to industry.nt.gov.au

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African swine fever

Information for pig owners

About the disease

African swine fever (ASF) is a highly contagious viral disease of domestic and feral pigs. The disease is not present in Australia but it has been confirmed in countries close to Australia including Timor Leste. ASF does not affect human health.

How it is spread

ASF is spread by direct contact between affected pigs or by exposure to contaminated items including equipment, clothing and footwear. It can also be spread by swill feeding – the feeding of meat scraps to pigs. The virus survives under most environmental conditions and is resistant to most disinfectants. It is not inactivated by freezing or heat less than 100 degrees Celsius.

Disease impacts

If ASF were to occur in Australia, it would have a serious impact on the pork and agriculture industries, along with substantial trade impacts as Australia would no longer be recognised as being free from ASF.

In the event of an ASF outbreak in Australia, the official response policy of Australia is to eradicate the disease in the shortest possible time.

Prevention activities

Early detection of ASF is vital, and all pig owners, hunters and landowners must play an important role by being vigilant and reporting any signs of disease.

What to look for

Signs of ASF in pigs can include

- sudden death or death within one-two days
- blotching of skin, especially the ears
- loss of appetite
- huddling or hiding in corners
- diarrhoea, which may be bloody.

What you can do

Pig owners

- Do not feed pigs prohibited pig feed – or swill. This includes food containing any meat products, or which may have had contact with meat products, such as kitchen or restaurant scraps, pies, pizzas and sausage rolls and deli meats.
- Feed your pigs commercially prepared pig feeds, grains or fruit and vegetables that have not had contact with meat.
- Clean and disinfect any equipment shared with other farms.
- Practice good hygiene—wear clean clothes and footwear when visiting a property with pigs.
- Prevent visitors from having unnecessary indirect or direct contact with your pigs.
- Prevent contact between farmed and feral pigs.



Skin blotching in a pig with ASF. Image credit Plum Island Animal Disease Centre.

Hunters

- clean and disinfect all equipment on site.
- clean and bag all carcasses before leaving the hunting area.
- respect all quarantines and restrictions that are in place and don't move live animals
- don't leave food scraps from your meals in hunting areas.
- don't hunt wild pigs if you are in contact with domestic pigs.
- report any signs of sick or dead pigs by calling the Emergency Animal Disease Hotline 1800 675 888.

Everyone

- Keep illegal imports out of Australia.
- Declare all meat and meat products at all international air and sea ports.
- If you've been visiting farms or hiking you declare this on entry.



Bruising of the feet. Image credit Plum Island Animal Disease Centre.

Report unusual signs of diseases in animals

If you notice any unusual signs in animals you must:

- contact the emergency animal disease watch hotline on 1800 675 888 or
- contact your local vet or livestock biosecurity officer

More information

For more information contact your local vet or local biosecurity office:

- **Darwin** 8999 2123
- **Katherine** 8973 9716
- **Tennant Creek** 8962 4458
- **Alice Springs** 8951 8181

Visit [African swine fever](https://www.nt.gov.au/industry/african-swine-fever/) | [NT.GOV.AU](https://www.nt.gov.au)

For more information, go to [industry.nt.gov.au](https://www.industry.nt.gov.au)

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Brucella suis (swine brucellosis)

Swine brucellosis is an infection caused by the bacteria *Brucella suis* (*B. suis*). While *B. suis* usually affects pigs, it is a zoonotic disease which can cause serious illness in people. It can be potentially fatal.

Infection with *B. suis* is a notifiable disease, and must be reported to the Chief Veterinary Officer.

Other species of the *Brucella* bacteria can cause different types of brucellosis. Australia is free of *Brucella abortus*, *Brucella melitensis* and *Brucella canis*. Bovine brucellosis (caused by *Brucella abortus*) was eradicated from Australia in 1989 as a result of a national eradication program.

Distribution

B. suis has been detected in feral pigs in the Northern Territory (NT). It is widespread in Queensland's feral pig population, and has also been detected in the feral pig population in northern New South Wales.

Affected animals

Pigs, cattle, horses, dogs and humans.

Clinical signs

Pigs will generally show signs of reproductive failure, piglet mortality or swollen testicles.

Dogs can remain bright, alert and show no obvious signs of infection. Clinical signs include fever, swollen testicles, back pain, lameness, vomiting, lethargy, haematuria, and abortion.

Cattle and horses may pick up infection from open waters frequented by feral pigs. There are no specific clinical signs associated with *B. suis* infection in cattle and horses, however, these species may react positively to brucellosis testing due to infection with *B. suis*. A positive test result for *Brucella* in cattle, typically during a herd fertility test, must be investigated to ensure that it has not been caused by *Brucella abortus* (bovine brucellosis), which is exotic to Australia.

The incubation period in **people** is variable from 5 days to months but averages 2 weeks. Weakness, fatigue and exhaustion are common with fever, head and body pains and mental depression. Anyone who suspects they may have been infected with *B. suis* should contact their doctor. Recovery can take up to 12 months, but antibiotics shorten the disease course.

How it is spread

The main source of infection is infected pigs. Boars can pass the disease on during mating, and spread can also occur by the ingestion of food and water contaminated with urine, placenta and discharges from infected sows. The organism can survive in faeces, urine and water for 4-6 weeks and much longer in freezing conditions. Direct sunlight will kill the organism quickly.

Infected dogs are a potential source of infection for people, via contact with urine, saliva and reproductive materials. Dogs may also act as mechanical carriers by shedding *Brucella* in the faeces after ingesting infected aborted foetuses or placentas.

In humans, *B. suis* mainly affects abattoir workers, pig farmers and feral pig shooters. Humans can contract the disease through skin, conjunctiva and by ingestion. Killing and slaughter of feral pigs can increase the risk of human infection unless strict hygiene measures are taken. Infection can occur from contaminated meat during preparation, cooking and serving of feral pig meat.



Monitoring and action

Veterinarians can submit whole blood or serum for serology and fresh, chilled tissue (eg. entire testicle, uterus or aborted foetuses) for bacterial culture, to the Berrimah Veterinary Laboratory. Tissue specimens should not be sliced open as this may increase the risk of human infection. Please ensure the submission is clearly labelled "Brucella exclusion", all samples are double bagged and accompanying paperwork remains outside the sample container.

Control

Control of *B. suis* in feral pigs is not possible, and treatment of domestic pigs is not considered practical.

Treatment for infected dogs includes a long course of antibiotic therapy and desexing to reduce the risk of spread to people or other animals. Treatment is not always successful, and in some cases dogs will relapse. Humans are treated with extended courses of antibiotics.



Prevention

Pig owners

- Prevent the entry of feral or other infected pigs onto your property.
- If you notice reproductive disease or swollen testicles in your pigs, contact a veterinarian.
- When handling pigs, cover all cuts and abrasions with waterproof dressings, wear enclosed, waterproof footwear, use good personal hygiene and wash your hands regularly.
- When handling pregnant or sick pigs, or butchering pigs, wear extra Personal Protective Equipment (PPE) including gloves and eye protection, and practice safe slaughtering methods.

Pig hunters

- When hunting, cover all cuts and abrasions with waterproof dressings, wear enclosed, waterproof footwear, use good personal hygiene and wash your hands regularly.
- Clean and disinfect work areas and vehicles after a hunt.
- If butchering feral pigs take extra precautions including wearing gloves and eye protection. If a pig looks sick, do not handle or butcher it.
- Always cook game meat thoroughly, and do not feed raw feral pig meat to your dogs. slaughtering methods.

Veterinarians and veterinary staff

- When handling pigs and pig hunting dogs, wear PPE, including gloves and eye protection, and use good personal hygiene
- Particular care should be taken when treating wounds, collecting blood, neutering, assisting with whelping or reproductive problems and performing caesareans on pig hunting dogs.
- A safe work method statement for collecting samples for B suis testing is available from the **NSW Department of Industry.**

African horse sickness

Information for horse owners



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About the disease

African horse sickness is a serious viral disease of horses which is spread by biting midges. It can also affect donkeys, mules, and, less commonly, dogs and camels. There is no effective treatment or prevention for African horse sickness and up to 90% of horses who get the disease will die.

African horse sickness is exotic to Australia, however it has recently been detected in South East Asia, with Malaysia and Thailand reporting outbreaks of disease for the first time in 2020. Infected insects could come into Australia on wind currents.

Disease impacts

An outbreak of African horse sickness in Australia could have a major social and economic impact on individuals. It would disrupt the horse industry, which includes horse-racing and other equestrian activities.

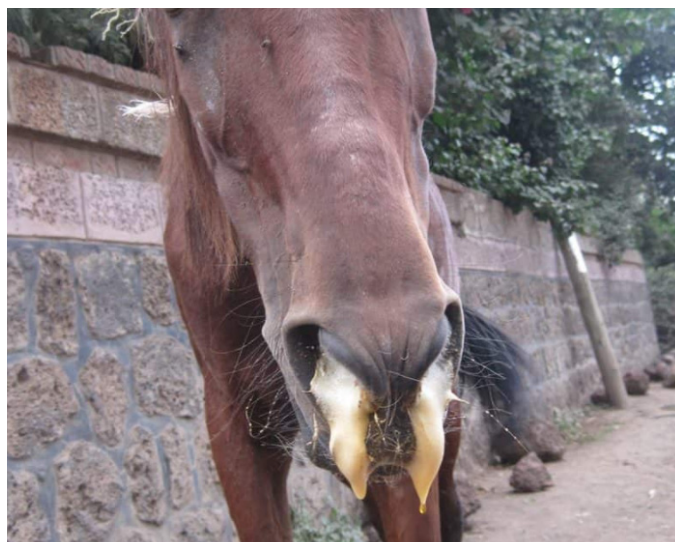
Prevention activities

The national policy is to eradicate the disease if possible using quarantine and movement controls, vector control and destruction and disposal of infected animals.

There is no vaccine for African horse sickness currently available for use in Australia.

What NT horse owners can do

- African horse sickness is a notifiable disease and any suspect case must be reported to the Chief Veterinary Officer.
- If you notice any severe illness or sudden death in horses, you should immediately contact your veterinarian or the Emergency Animal Disease (EAD) Watch hotline 1800 675 888.
- African horse sickness is diagnosed through blood tests taken by a veterinarian. Subsidies are available to cover the cost of veterinary investigations which rule out African horse sickness.



What to look for

Horses with African horse sickness usually become very sick suddenly, and will rapidly deteriorate and die. Some of the signs can include:

- swelling of the face and eyelids
- swelling of the head, neck and chest
- difficulty breathing, with or without frothy discharge from the nostrils

Signs in donkeys are generally mild.



More information

For more information contact your local biosecurity office:

- **Darwin** 8999 2123
- **Katherine** 8973 9716
- **Tennant Creek** 8962 4458
- **Alice Springs** 8951 8181

Visit [NT.GOV.AU](https://www.nt.gov.au)

For more information, go to [industry.nt.gov.au](https://www.industry.nt.gov.au)

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Avian influenza (bird flu)



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Avian influenza (AI), commonly called bird flu, is an infectious viral disease of birds that occurs worldwide. There are many strains of the AI virus.

AI viruses mostly circulate in wild bird populations causing no disease or only mild disease. However, when some strains of the virus infect domestic poultry, such as chickens, they can cause severe disease.

On rare occasions, some strains of AI virus can infect and cause disease in humans.

How could AI enter Australia and how does it spread?

AI is spread by wild birds, particularly ducks, contaminating food or water supplies. Migratory birds (predominantly shore birds and waders from nearby countries in South East Asia) can pose a risk if they harbour AI infection and then mingle with and transmit this infection to waterfowl that are nomadic within Australia. These nomadic birds can then mingle with and spread the infection to domestic birds, such as poultry.

The disease is also spread by animal-to-animal contact, bites and scratches, and the movement of infected live birds, poultry products or contaminated feed, equipment and materials. The disease can survive in faeces, on feathers, eggs or meat, and in water.



Bruising of the feet. Image credit: Dr D Swayne, USDA and CFSPH.

What can you do

- Keep your equipment and poultry yard or aviary clean.
- Avoid contact between your birds and wild birds.
- Don't let feed and water become contaminated by faeces or other animal waste.
- Limit visitors to your birds.
- Quarantine new birds and monitor for at least 30 days before introducing them to your existing flock.
- Know the signs of disease
- Immediately report any sick or dead birds

If you see any unusual symptoms in your birds or find that a number of them have died within a short period of time, be on the safe side and report it immediately to your local veterinarian or the Emergency Animal Disease Hotline on 1800 675 888.

What to look for

All bird species are thought to be susceptible to AI, with reports showing it to occur in more than 140 species, including domestic poultry (chickens, turkeys, pheasants, partridges, quail, pigeons, ducks, geese, guinea fowl and ostriches) and wild birds.

Signs may include:

- swollen heads, sometimes with bruising
- dullness
- drop in egg production
- respiratory distress (open-mouth breathing, coughing, sneezing)
- diarrhoea
- loss of appetite
- sudden death of several or more birds
- reluctance to move, eat or drink
- droopy appearance
- inability to walk or stand
- unusual head and neck posture.



Bruising comb and wattle. Image credit: Dr D Swayne, USDA and CFSPH.

For more information, go to industry.nt.gov.au

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Ehrlichiosis

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Protect your dog

Ehrlichiosis, a tick-borne dog disease, has been detected in the Northern Territory and is present in all areas, including Darwin, Palmerston, Katherine, Tennant Creek, Alice Springs and remote communities.

Ehrlichiosis is a bacterial disease spread by the brown dog tick. Once the disease is in the brown dog tick population it's very difficult to control.

Prevention is the best protection as vaccinations are not available.

Protect your dog from ehrlichiosis

- Have your dogs on a tick control program. Tick collars and spot-ons are the best primary protection used in combination with tablets and chews registered for tick control.
- Ensure any tick infestations in the house yard are managed by a pest controller.
- Avoid taking your dogs into tick-infested areas.

Inspect your dogs daily for ticks

- Run your fingers through your pet's coat, feeling for ticks that may be attached to the skin.
- Pay attention to the head, neck and ears, chest, between their toes and around their mouths and gums.
- Remove ticks carefully using a tick remover such as fine tipped forceps or your fingertips, grabbing it as close to the skin as possible, avoiding squeezing the body of the tick.
- Kill the tick by putting it in alcohol, into a sealed container and then into the rubbish.

 Join the Biosecurity Facebook Group @biosecNT

nt.gov.au/ehrlichiosis

Prevent ticks from biting your dog

- Use a tick control product which repels ticks, such as a tick collar or spot-on. Products which rely on the tick biting the dog to work may not prevent ehrlichiosis. Ask your vet for advice about which product best suits your needs.
- Controlling ticks in your environment is critical. Ticks can live in cracks and crevices around your house and yard, around kennels, and inside skirting boards, window and door frames and can survive for many months without feeding. Speak with a professional pest controller about treating your home.

Travelling or boarding your dog?

Before hitting the road:

- Check in with your vet to assess disease prevention requirements such as vaccination, worming, tick and flea control, heartworm preventive.
- When travelling avoid contact with other dogs when stopping, such as at fuel stations, truck stops or caravan parks, to avoid transfer of infected ticks between dogs.

Ehrlichiosis

It is important to seek veterinary advice and treatment as ehrlichiosis can resemble other tick-borne dog diseases. Early treatment provides the best chance of recovery.

If you suspect your dog is showing signs of the disease, consult your local vet for further advice about diagnosis and treatment.

More information about ehrlichiosis can be found at nt.gov.au/ehrlichiosis

- When boarding your dog, make sure their tick, flea and worming prevention and vaccinations are up to date. Check with your local boarding kennel on mandatory disease prevention requirements.

Look out for the signs

- fever
- lethargy
- loss of appetite
- weight loss
- swelling of the chest or front legs
- cloudy eyes or conjunctivitis
- pain and stiffness
- bleeding disorders such as nosebleeds or bruising on the gums or belly.



Ehrlichiosis



THE
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Travelling with your dog

Ehrlichiosis, a tick-borne dog disease, has been detected in the Northern Territory (NT) and is present in all areas, including Darwin, Palmerston, Katherine, Tennant Creek, Alice Springs and remote communities.

Ehrlichiosis is a bacterial disease spread by the brown dog tick. Once the disease is in the brown dog tick population it's very difficult to control.

This disease affects dogs and can result in death if not properly treated. You should take these simple steps to protect your dog when you are travelling in the NT.

Protect your dog from ehrlichiosis

Prevention is the best protection as vaccinations are not available.

- Have your dogs on a tick control program. Tick collars and spot-ons are the best primary protection used in combination with tablets and chews registered for tick control.
- Ensure any tick infestations in the house yard are managed by a pest controller.
- Avoid taking your dogs into tick-infested areas.

Inspect your dogs daily for ticks

- Run your fingers through your pet's coat over their skin, feeling for abnormal bumps.
- Pay attention to the head, neck and ears, chest, between their toes and around their mouths and gums.
- Remove ticks carefully using a tick remover or fine tipped forceps, grabbing it as close to the skin as possible avoiding squeezing the body of the tick.
- Kill the tick by putting it in alcohol, into a sealed container and then into the rubbish.

 Join the Biosecurity Facebook Group @biosecNT

nt.gov.au/ehrlichiosis

Travelling or boarding your dog

Before hitting the road:

- Check in with your vet to assess disease prevention requirements such as vaccination, worming, tick and flea control, heartworm preventive.
- When travelling avoid contact with other dogs when stopping, such as at fuel stations, truck stops or caravan parks, to avoid disease transmission between dogs.
- When boarding your dog, make sure their tick, flea and worming preventions and vaccinations are up to date. Check with your local boarding kennel on mandatory disease prevention requirements.

Look out for the signs

- fever
- lethargy
- loss of appetite
- weight loss
- swelling of the chest or front legs
- cloudy eyes or conjunctivitis
- pain and stiffness
- bleeding disorders such as nosebleeds or bruising on the gums or belly.

Human health

The disease cannot be directly passed from infected dogs to humans.

In extremely rare cases, ticks infected with *Ehrlichia canis* may infect people. Human ehrlichiosis is almost always caused by species other than *Ehrlichia canis* and these species have not yet been found in Australia.

For information on human health implications associated with tick, as well as prevention, removal and first aid advice see https://ww2.health.wa.gov.au/en/Articles/S_T/Ticks

Ehrlichiosis

It is important to seek veterinary advice and treatment as ehrlichiosis can resemble other tick-borne dog diseases. Early treatment provides the best chance of recovery.

If you suspect your dog is showing signs of the disease, consult your local vet for further advice about diagnosis and treatment.

More information about ehrlichiosis can be found at nt.gov.au/ehrlichiosis



Ehrlichiosis



THE
TERRITORY

Treatment for your dog

Ehrlichiosis, a tick-borne dog disease, has been detected in the Northern Territory and is present in all areas, including Darwin, Palmerston, Katherine, Tennant Creek, Alice Springs and remote communities.

Ehrlichiosis is a bacterial disease spread by the brown dog tick. If your dog has been diagnosed with ehrlichiosis, it is important that you follow some simple measures to protect the health of your dog and your community.

Treatment Plan

- Follow the ehrlichiosis treatment plan recommended by your vet.
- Complete the long course of antibiotics prescribed by your vet.

Early antibiotic treatment provides the best chance of recovery. In some cases very sick dogs may need supportive care and hospitalisation.

Tick prevention program

- Have your dogs on a tick control program. Tick collars and spot-ons are the best primary protection used in combination with tablets and chews registered for tick control. Treat all the dogs at the same time.

Talk to your vet about which product is best suited your needs.

You should always:

- follow label instructions
- provide regular treatments on time - a reminder in your phone can help!

Check your dog for ticks

- Regularly check your dogs for ticks.
- Run your fingers through your pet's coat, feeling for ticks that may be attached to the skin. Pay particular attention to the head, neck and ears, chest, between their toes and around their mouths and gums.
- Kill the tick by putting it in alcohol, into a sealed container and then into the rubbish.

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Treating your environment

- Speak with a professional pest controller about treating your home environment to break the cycle of infection.

Ticks can live in cracks and crevices around your house and yard, around kennels, and inside skirting boards, window and door frames where they can survive for many months without feeding.

Ticks that feed on an infected dog can go on to infect other dogs. Controlling ticks in your environment is important to break the transmission cycle of the disease.

Don't move your dog

- Don't move your dog away from your hometown or community until it is recovered, as this could spread disease to other areas.
- If you need to move your dog(s), wait until its treatment is finished. Contact your vet to check your dog is healthy and ensure your tick control treatment is current.

Ehrlichiosis

It is important to seek veterinary advice and treatment as ehrlichiosis can resemble other tick-borne dog diseases. Early treatment provides the best chance of recovery.

If you suspect your dog is showing signs of the disease, consult your local vet for further advice about diagnosis and treatment.

More information about ehrlichiosis can be found at nt.gov.au/ehrlichiosis

Look out for the signs

- If any other dogs become unwell, especially with fever, lethargy, loss of appetite, weight loss, cloudy eyes or conjunctivitis, pain and stiffness, bleeding disorders such as nosebleeds or bruising on the gums or belly, contact your vet immediately so they can be checked for ehrlichiosis.

Human health

- The disease cannot be directly passed from infected dogs to humans.
- In extremely rare cases, ticks infected with *Ehrlichia canis* may infect people. Human ehrlichiosis is almost always caused by species other than *Ehrlichia canis* and these species have not yet been found in Australia.
- For information on human health implications associated with ticks, as well as prevention, removal and first aid advice see [ww2.health.wa.gov.au/en/Articles/S T /Ticks](http://ww2.health.wa.gov.au/en/Articles/S_T/Ticks)

