Animal Health

DEPARTMENT OF **PRIMARY INDUSTRY AND RESOURCES**

June 2017

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Livestock disease investigations

The Department of Primary Industry and Resources (DPIR) provides a free disease investigation service to livestock owners for diagnosis of notifiable emergency, exotic and endemic disease, including zoonotic diseases. Berrimah Veterinary Laboratories provide free diagnostic testing for exclusion of notifiable disease for all disease investigations, and subsidies are available to private veterinarians for significant disease investigations in livestock. The Northern Australia Enhanced Disease Surveillance program has been introduced from 2017-2019 on a trial basis providing increased subsidies for cattle and buffalo disease events reported to and investigated by private veterinarians. This program recognises the higher costs and challenges associated with conducting disease investigations in more remote regions.

During January to March 2017, 58 livestock disease investigations were conducted to rule out emergency diseases or investigate suspect notifiable diseases across the Northern Territory (NT). Figure 1 shows the number of investigations by species of livestock.

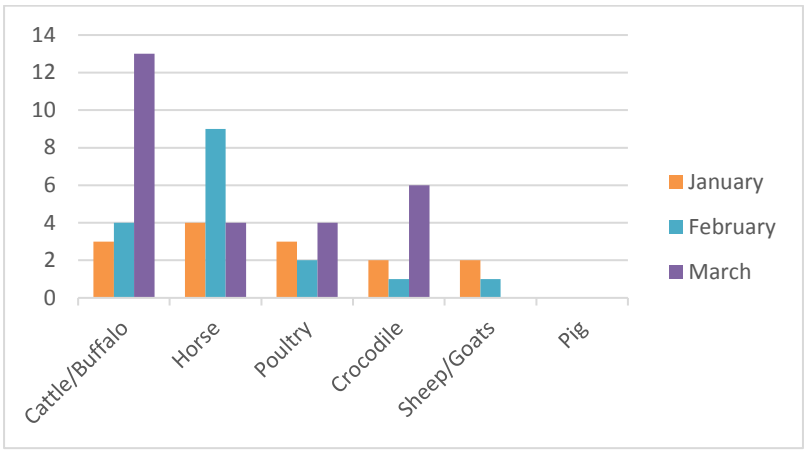

Figure 1. Livestock disease investigations by species for January to March 2017

Berrimah Veterinary Laboratories processed 142 livestock sample submissions, including samples to substantiate proof of disease freedom certifications, for accreditation programs and targeted surveillance to support market access.

The following case reports are a selection of field investigations of livestock disease incidents during the quarter.

Livestock disease investigation case reports

Foot and mouth disease excluded in cattle herd

A property in the Katherine region reported losses in their 12-18 month old cattle after an estimated 20 head out of 60 were found to be missing and presumed dead after a prolonged wet season. Some of the remaining cattle were displaying signs of dehydration and scours at the time of the investigation.

One of the heifers was found to be in very poor body condition. The heifer was euthanised and an autopsy was performed. The autopsy revealed a full rumen with dry contents. There was no evidence of diarrhoea in this animal. Two small ulcerations were found on the inside of the heifer's mouth, the sores appeared to be healing. Samples were collected from this animal and 30 cohorts for diagnosis and to exclude foot and mouth disease (FMD).

Laboratory tests run on the tissue from the ulcer and serum excluded FMD. Tests on the faecal samples showed no evidence of internal parasites, including coccidiosis. Blood samples from the heifer showed a moderate increase in neutrophils; a type of white blood cells that helps to kill bacteria. There was also elevated urea levels in the blood, likely due to dehydration. *Salmonella subsp ser rough*: e.h:1.2 was isolated by direct faecal culture and *S.montevideo* and *S.reading* was isolated by enrichment culture. Salmonella isolation from direct culture of faeces is often associated with clinical disease. Salmonella isolation from enrichment culture reflects lower numbers of organisms in the faeces and can indicate a carrier or recovered animal.

Severely affected cattle were treated with antibiotics and all cattle recovered with no further illness or death. The presumptive diagnosis is salmonella infection but it is believed to have followed another significant stress event that remains undetermined.

Salmonella is a bacteria that can be found in the digestive tract of humans, mammals, reptiles and poultry. The bacteria can be spread from infected hosts through faecal matter, resulting in illness for previously uninfected animals. There are over 12 different types of salmonella organisms in Australia. The Salmonella bacteria is mainly spread to mammals through food and water that has been contaminated by animals already infected with the bacteria. Wildlife are known carriers of salmonella infections and have been responsible for outbreaks of the disease in cattle. Cattle may not show symptoms until they are exposed to stress factors, lowering their resistance. Such stress factors include lack of food or water, change in diet, extremely hot or wet weather, weaning and transport.

Clinical Signs vary between cases, with some cases resulting in scouring, others in pneumonia or even odd deaths in older cattle. Any of the following may be related to salmonella:

- High temperatures (fever)
- Depression
- Bloody, foul smelling scours that may contain blood and mucous membrane
- Loss of appetite
- Rapid weight loss
- Abortion in pregnant animals
- Significant number of rapid deaths in calves
- Spasms and trembling of muscles
- Salivating and frothing at the mouth

For those animals that do not die, diarrhoea, emaciation and wasting are likely to continue for a while before the animal recovers.

It is important to remember that salmonella poses a threat to humans. Salmonella is spread relatively easily to humans and/or other animals as it can be ingested through direct or indirect contact with faecal material. If you believe your animals have salmonella, please contact your regional DPIR veterinary officer or local veterinarian for tests which can be run to ensure a correct diagnosis is made and appropriate medication administered. There are a number of alternative diseases that can cause the syndrome seen. Salmonella is not a common diagnosis in Northern Territory herds. There should be few consequences for this herd under improved management.

Figure 1: Cattle herd investigated following losses

Reference:

Hungerford, T. G. (Thomas Gordon) 1990, *Diseases of livestock*, 9th ed, McGraw-Hill, Sydney

Bovine herpesvirus 5 causes mortality in weaner cattle on property in Katherine region

The manager of a property in the Katherine region reported sudden death in 26 weaner cattle from a herd of 2000 over the space of a few weeks. The cattle had been weaned, processed, and transported to the property in multiple consignments during the preceding month Weaners had access to weaner pellets, hay, and unimproved pasture once they arrived at the property. Conditions had been particularly wet during the previous months.

Figure 2: BHV-5 affected recumbent weaner heifer

The mob was in overall average condition, with some very young animals. Dead cattle were generally in poor condition, and had been found under trees and in feed troughs. One heifer was seen to be circling and was found the next day with a head tremor and unable to stand. This heifer and an additional two steers, which were the weakest of the mob, were euthanased for autopsy and 30 animals were blood sampled.

At post mortem the lungs of all three animals were pale, with the bottom sections of the lungs filled with liquid instead of air. The ruminal papillae in the heifer and one steer were smoother than would be expected. Ruminal papillae are the thousands of tiny finger like bumps attached to the inside surface of the rumen which help with absorption. Other organs looked normal.

Tests undertaken at Berrimah Veterinary Laboratory (BVL) found inflammation of the air sacs in the heifer's lungs. The lung tissue collected from the steers showed severe bronchopneumonia (inflammation of the lungs, particularly in the bronchi). A mixed bacterial growth including *Pasteurella sp.*, was cultured from the steers. Inflammation of the brain was also identified in one of the steers and the heifer, with changes in the heifer being more severe. Laboratory tests found a mild to moderate increase in neutrophils (white blood cells) in all the animals. Muscle damage was also seen in all animals which is commonly associated with downer animals. The Pasteurella infection may have indicated a degree of 'shipping fever'.

The heifer had a moderate faecal egg count (600eggs/g) but overall egg counts were low as expected. Laboratory tests excluded infection with Kunjin virus, Murray Valley encephalitis virus, Chlamydia and herpesvirus. Bovine ephemeral fever was ruled out, and tests for bovine virus diarrhoea (pestivirus) and coccidiosis infection were negative. Testing of brain tissue specifically for bovine herpesvirus 1 and 5 was positive for bovine herpesvirus 5 in the heifer and one of the steers.

Bovine herpesvirus 5 is present in Australia and may cause inflammation of the brain and neurological disease in young animals. The virus can establish, lay dormant and may be reactivated when infected cattle are stressed; it is then excreted in nasal, eye and genital secretions. BHV 5 is part of the 'growing up' phase for cattle with problems rarely seen in adult cattle.

Serological testing for leptospirosis demonstrated a very consistent exposure to a range of Leptospira but particularly *Leptospira Pomona*. No disease attributed to *L Pomona* was seen in live or post mortemed cattle. The presumed source was the large number of feral pigs on the property of origin.

The cattle were dipped for cattle tick to exit the Parkhurst Resistant Tick Infected Zone. Amitraz levels in the dip were correct. No other issues were seen in other mobs of young cattle that were dipped.

Multiple stressors are likely to have contributed to the observed mortality of these cattle. In this case, early weaning, processing, prolonged periods of time spent in yards and transport of the large number of young cattle in a very wet season. Further stressors include; the concurrent worm burden, the cattle tick plunge dip, transport and the sudden introduction of the weaners to the new post-weaning hard ration. The level of mortality (approx. 1.3% in this mob) is significant but the diagnosed diseases are difficult to prevent in a cost effective manner other than by strategic treatment of sick animals (anthelmintic, antibiotics) if detected early enough to allow a good chance of response.

The cattle were turned out into a clean paddock for several weeks before being run through the yards again, and there were no further losses reported.

Poultry mortality on remote Northern Territory Island

A report of sudden death in a backyard flock of chickens was investigated in a remote community on an island off the Northern Territory coastline. Eight out of 12 birds on the property had shown signs of weakness, were lying down, unable to get up, and had died over a two day period. There had been no recent management changes, other than herbicide that had been applied to the yard the week previously. The weather had been particularly wet and cyclonic. A hen was euthanased, its carcase frozen and transported to the Berrimah Veterinary Laboratories.

An autopsy of the hen found no evidence of infectious disease. Further examination revealed evidence of a firm mass within the air sac, likely incidental and from a previous passing condition such as mild air sacculitis or serositis, with no active inflammation present. Sacculitis is lower respiratory disease in chickens, where one or more of the air sacs become inflamed. Serositis is the inflammation of the tissues that line the lungs, heart, abdomen and inner abdominal organs. Avian influenza and Newcastle disease viruses were excluded by tests on swabs collected from the cloaca and oral cavities. A presumptive diagnosis of avian botulism was made on the basis of clinical history and lack of gross and histological evidence of other disease.

Cases of botulism in poultry, caused by consumption of maggots containing *Clostridium botulinum*, are seen commonly in poultry during the wet season in the Top End. In this case, maggots were not found in the gastrointestinal tract of the bird on post-mortem, however in subacute cases of poisoning maggots may already be digested. Upon questioning the owner it was discovered that the chickens in this case were regularly fed leftover fish and meat. When decayed, these are common sources of *C. botulinum* toxin and maggots, which concentrate the toxin. The owner was given recommendations to remove decaying food scraps from the birds, and no further losses have been reported.

New industry-agreed NT entry requirements for Johne's disease management in 2017

The Northern Territory (NT) cattle industry has agreed an assurance level of Johne's Beef Assurance Score (J-BAS) 6 including five years freedom from Johne's disease (JD) infection in source herds would best facilitate movement of cattle into the NT while maintaining biosecurity requirements consistent with the live export requirements.

J-BAS**Need a quick catch-up on what has been happening**

JD is a serious wasting disease that affects cattle, buffalo, bison, sheep, goats, deer and camelids. The Territory was previously a JD Protected Zone with no known disease. On 1 July 2016, zones were no longer recognised and producers were responsible for risk assessments and assurances for JD prevention and management on their individual properties.

The Johne's Beef Assurance Score (J-BAS) was developed as a risk profiling tool for beef producers. There is an equivalent tool for the dairy industry – Dairy Score. All NT properties were given a J-BAS of 7 for trading purposes during the 12-month transition period from 1 July 2016-30 June 2017. A J-BAS 7 was also applied as an interim entry requirement for cattle and buffalo into the NT during the transition period. The J-BAS rating is from 0-8 (lowest to highest level of assurance).

The transition period for changing to the new national JD management system was due to end on 30 June 2017, however there has been a change to this date allowing producers until 30 September 2017 to complete and implement a property biosecurity plan in line with the requirement for a biosecurity plan under the Livestock Production Assurance (LPA) program.

What's happening now?

From 1 October 2017, Northern Territory properties have the following options:

1. **Maintain current low-risk status J-BAS 7.**
   To maintain this status properties will need to:

   a. By 30 September2017 - complete and implement a Property Biosecurity Plan that addresses JD risks, in collaboration with a veterinary advisor, which requires annual review.

   b. By 30 June 2018 – complete a Check Test (testing of 50 representative adult cattle from the herd by faecal PCR or culture). This will need to be completed within the past 12 months for properties trading into Western Australia from 1 January 2018.

   c. Ongoing – Maintain an annual veterinary review of the property biosecurity plan and a Check Test every three years. The Check Test will need to be done within the past 12 months for properties trading into Western Australia from 1 January 2018.

2. **Move to a J-BAS 6**

   a. By 30 September 2017 - complete and implement a Property Biosecurity Plan that addresses JD risks. Veterinarian oversight is not required.

   b. Check Testing is not required

3. **Do nothing. Reduce to J-BAS 0**

    a. By 30 September 2017 – Fail to complete and implement a Property Biosecurity Plan that addresses JD risks

4. **Achieve maximal assurance (J-BAS 8)**

    a. By 30 September 2017 - complete and implement a Property Biosecurity Plan that addresses JD risks, in collaboration with a veterinary advisor, which requires annual review.

    b. Sample Test (210-300 adult cattle sampled), repeated two years apart

    c. Ongoing – Maintain annual veterinary review of the property biosecurity plan and a Check Test every three years. The Check Test will need to be done within the past 12 months for properties trading into Western Australia from 1 January 2018.

Northern Territory properties trading with Western Australia will need to initiate measures to maintain J-BAS 7 score.To maintain the **J-BAS 7** score, properties need to implement a property biosecurity plan before 30 September 2017 in collaboration with a veterinary advisor, which will require annual review. J-BAS 7 also requires properties to complete a check test of 50 representative adult cattle from their herd. From 1 January 2018, Western Australia requires that the check test is completed within the past 12 months.

Cattle or buffalo entering the NT consigned direct to export must meet the J-BAS 6 score entry requirements and declaration of 5 years with no JD infection on the property of origin. This is to manage the disease risk associated with animals ineligible for export (export rejects). Cattle or buffalo entering the NT consigned direct to slaughter are exempt from J-BAS score entry requirements.

Producers will need to be aware of risk for acquiring JD when purchasing stock from interstate. For interstate movements into the NT and WA, the property's J-BAS, biosecurity plan, JD property of origin statusany JD testing results will have to be declared by the vendor.

NT producers are encouraged to apply the J-BAS 6 requirements for intrastate movements to protect their JD status and to seek a higher level of JD assurance for seed stock purchases because of the potential disease risks that apply to importing breeding stock. Animals vaccinated for JD must be identified with the three-hole ear punch to assist with interpretation of any future JD exposure status.

The new national arrangements do not distinguish between bovine, ovine and other strains of JD and biosecurity risk assessment must take this into account. Of particular concern is contact between dairy and beef herds or some extent of co-grazing on contaminated land on a property where the JD status of the dairy animals is less than J-BAS 7 or Dairy Score (DS) 7. The lower level of assurance applies to the potential livestock movement.

What do I need to do to maintain a higher J-BAS?

The table below outlines the conditions a property needs to meet and the dates to maintain or reach the J-BAS 6, 7 or 8.

J-BAS Score	Action to be taken and date required
J-BAS 6	☐ Complete and implement a **property biosecurity plan by 30 September 2017** ☐ No history of JD infection in herd for a minimum of five years

J-BAS 7	☐ *By 30 September 2017*- complete and implement a **property biosecurity plan** in collaboration with a veterinarian ☐ *By 30 June 2018*- complete a **check test** of 50 adult cattle. ☐ Maintain an annual veterinary review of the property biosecurity plan and a check test every three years. ☐ For entry to WA, the check test will need to be completed within the past 12 months for from 1 January 2018.
J-BAS 8	☐ *By 30 September 2017*- complete and implement a **property biosecurity plan** in collaboration with a veterinarian ☐ *By 30 June 2018*- complete a **sample test** of 210-300 adult cattle, sampled two years apart. ☐ Maintain an annual veterinary review of the property biosecurity plan and a check test every three years. ☐ For entry to WA, the check test will need to be completed within the past 12 months for from 1 January 2018.

Property biosecurity plan

J-BAS requires a property biosecurity plan for all scores from J-BAS 1 to 8. The grazing manual biosecurity template, which incorporates the JD biosecurity checklist, has been developed for producers to use for this purpose. This meets the national industry minimum standards of the National Farm Biosecurity Reference Manual - Grazing Livestock Production. A number of other biosecurity plan templates are also available to help livestock producers develop biosecurity plans for their properties.

- **Get the** grazing manual biosecurity **template (concise version)**
- **Get** the on farm biosecurity plan **template (comprehensive version)**
- **Get the** guideline for developing an on-farm biosecurity plan for producers

JD testing

Specific information on the J-BAS and testing requirements can be found at www.animalhealthaustralia.com.au/jd-cattle-tools/

What are the NT JD entry requirements from 1 July 2017?

From 1 July 2017, cattle, buffalo, bison, sheep, goats, deer and camelids imported into the NT will be required to meet the following minimum JD requirements, in addition to existing livestock movement requirements. Cattle or buffalo entering the NT consigned direct to slaughter are exempt from J-BAS score entry requirements.

Livestock being imported into the NT	**Johne's Disease J-BAS requirement**
Cattle & buffalo (beef)	Property score of at least **J-BAS 6**
Cattle & buffalo (dairy)	Property score equivalent to at least **DS 7**
Sheep, goats & camelids	Property score of at least **J-BAS 6**

What are the JD entry requirements for sending livestock interstate from the NT?

The entry requirements for sending livestock interstate from the NT have changed. Producers should contact the relevant state to confirm entry requirements prior to transporting livestock.

Destination	Johne's Disease requirement
WA	Property score of at least **J-BAS 7.** Other testing requirements may apply –see WA LB1 form.
QLD, SA, NSW, Vic	No specific movement controls in relation to JD. Producer obligation not to introduce JD infection.

JD remains a notifiable disease under the *Livestock Act* and must be reported to the Chief Veterinary Officer as soon as reasonably practicable if known or suspected to be present. Properties will not be placed under quarantine.

Further JD risk management.

NT producers are advised to seek a higher level of JD assurance on stock purchases, particularly bulls and should discuss this with their vendor, agent and veterinarian. Vaccination with Silirum is one measure that can be used. Identification of vaccinated animals with a three hole ear punch is required.

For further biosecurity information please contact Susanne Fitzpatrick
e: susanne.fitzpatrick@nt.gov.au p: 8999 2123 m: 0407 498 003

For further movement information please contact Greg Crawford
e: greg.crawford@nt.gov.au p: 8951 8125 m: 0401 118 125

Pregnancy toxaemia in cattle

Pregnancy toxaemia (also known as Fatty Liver Disease), occurs when cows in good condition with high nutritional demands of late pregnancy cannot get enough feed to meet their energy requirements which leads to a state of ***negative energy balance***. This is a situation when a cow's energy requirements are ***greater*** than her dietary energy supply. Under these conditions, cows respond by using their body fat reserves to provide the required energy. In some cases this causes serious metabolic changes, liver damage and even death.

Pregnancy toxaemia is not commonly seen in rangeland cattle but can occur on occasion, mainly due to high levels of stress during late pregnancy. Pregnancy toxaemia is usually triggered by a sudden reduction in feed availability or quality. For example, changing paddocks, mustering long distances, transporting and yarding may cause stress and a reduced feed intake in heavily pregnant cattle. This in turn triggers an increase in body fat mobilisation to the liver to meet energy demands.

What causes fatty liver disease?

Pregnant cows require large amounts of energy to maintain their growing calf. This energy comes in the form of glucose from two processes:

- Feed is absorbed in the rumen and transported to the liver where glucose is produced.
- Body fat is also broken down and transported to the liver via the bloodstream where the liver converts it to glucose during times of high energy demand such as late pregnancy.

The negative energy balance is created when the amount of glucose produced by the liver to break down the incoming body fat is not enough. This causes the fat to start building up in the liver. The liver then becomes enlarged, pale and fatty. Another disease that often affects cows simultaneously as a result of these metabolic changes occurring is called ketosis. Ketones are a by-product of this fat burning process to access energy. Excessive levels of ketones build up in the brain and tissues and may cause some of the clinical signs often associated with pregnancy toxaemia. These include:

- depression
- inappetance (not eating)
- ataxia (weak in the hind end)
- recumbent (unable to stand)
- increased respiratory rate
- increased aggression, stubbornness or confusion.

Prevention

Pregnancy toxaemia may be prevented by management strategies that maintain a good appetite and supply of adequate feed to meet this demand of energy during the late stages of pregnancy and immediately after calving when milk and energy demands are high. These strategies include:

- minimising stress by avoiding mustering, transport and prolonged yarding of heavily pregnant animals (all of these factors may reduce feed intake and cause an increase in fat mobilisation to the liver). Pregnant cows with a high body condition score seem to be more susceptible to pregnancy toxaemia if they are starved for short periods; for example, if yarded for several hours or transported.
- feeding ample quantities of high-quality forages during the last trimester and post calving to meet energy demands.

It is a major reason for the restrictions in the Land Transport Standards that must be followed:

- *SB4.3 Cattle known to be in the last four weeks of pregnancy must only be transported under veterinary advice unless the journey is less than four hours duration.*

Diagnosis and treatment

In extensive field conditions diagnosis is normally confirmed by blood tests and/or a post mortem examination of an affected animal. The liver is normally very large, pale and tears easily. Treatment usually comprises intravenous fluids and oral Propylene glycol over an extended period of time. Treatment options are limited in larger cattle station conditions due to the extensive nursing care and time required for the recovery of affected animals (may be weeks).

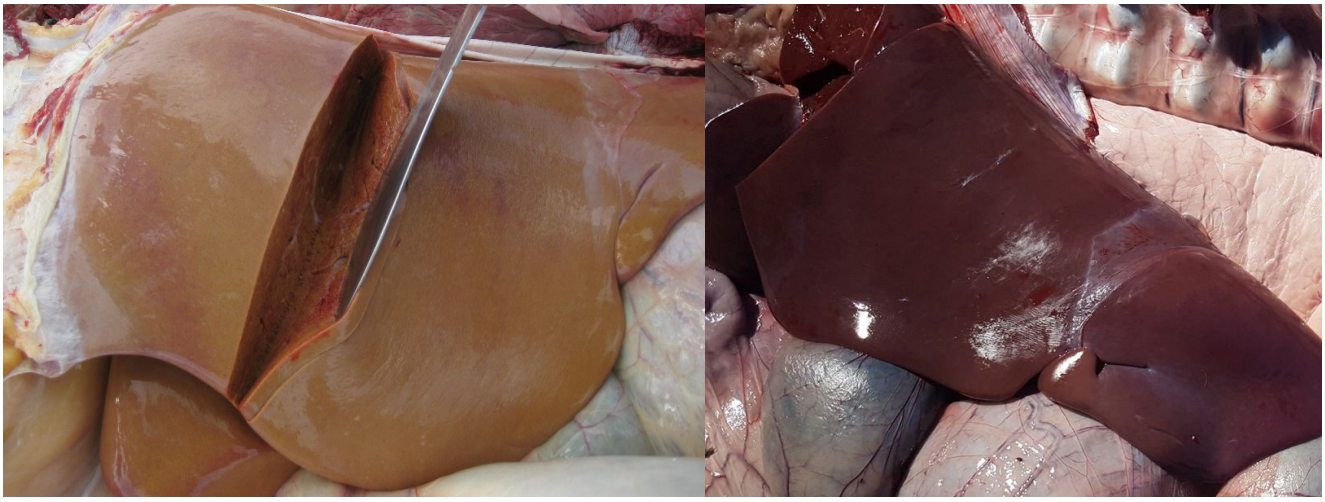

Figure 3: A fatty liver (left) and a normal liver (right)

Once the metabolic changes of pregnancy toxaemia begin to occur in an animal they are very difficult to reverse. Diagnosis in one or two individual animals may indicate a dietary energy deficiency being experienced by the whole herd or a sudden stressful event. Awareness of this condition, early detection and prevention by providing careful management including; good quality grazing or supplementary feed during the last trimester of pregnancy has proven to be more effective than treatment.

Leptospirosis - a work health safety issue

In the past wet season a significant number of NT stock workers have been affected by Leptospira Pomona. Confirmed cases of leptospirosis in humans are reported by the NT Department of Health Centre for Disease Control. Leptospirosis is a notifiable disease in humans, commonly referred to as 'Lepto', poses a serious threat to staff working on cattle stations, particularly in the flood plain and rural Darwin/Katherine regions. Leptospirosis is caused by a number of strains of the *Leptospira* bacteria, which have the ability to infect both animals and also cause serious disease in humans. Animals infected include cattle, pigs, sheep, goats, horses, dogs and rats in addition to native wildlife including kangaroos.

Leptospirosis is highly contagious because of the many ways it can be spread from animal to animal, or from animals to humans. The disease can be spread through urine, or at birth or abortion, resulting in the contamination of water, feed, pastures and soil. Once in the environment, the bacteria are able to infect animals and humans through damaged skin or the membranes lining the nose, eyes or mouth. Stock workers are most likely to contract the disease when working in cattle yards or abattoirs with infected cattle. Infection can result from both direct exposure to urine when handling or slaughtering cattle and working in yards where the water, mud, soil or vegetation have been infected. 'Bang tailing' and cleaning of water troughs are two key activities which can pose a risk to stockpersons. Handling the foetus of an aborted calf, or assisting with calving can be a further source of infection for humans. Recreational activities that may pose a risk include camping, bushwalking, gardening and hunting.

The clinical signs in cattle will vary depending upon the strain of the disease. In general, animal signs associated with leptospirosis include weak newborns, fever, infertility, mastitis, jaundice, depression and anorexia. Abortion 'storms' may also be seen in cows that are greater than five months pregnant. Abortions may occur weeks after initial symptoms, or even in the absence of symptoms. These signs are rarely recognised in the NT.

Symptoms in humans have been found to occur within 10 days; however can range from 4 to 19 days. The length of illness varies, with people being sick for a few days, or as long as three weeks or more. Relapses are common however it is rare for person to person transmission to occur. Symptoms can include any of the following:

- Sudden onset of fever
- Severe headaches
- Chills
- Severe muscle pain (especially in the legs)
- Reddened eyes
- Cough
- Diarrhoea
- Vomiting

Occasionally, people with Leptospirosis will develop Weil's disease, symptoms include jaundice, bleeding, breathing difficulties and confusion. Although extreme cases can prove to be fatal, most cases involve people with mild symptoms that resolve themselves with little to no complications, or cases where there are no symptoms at all. It is important to reach a diagnosis for proper treatment and to exclude more serious diseases such as melioidosis.

As there is no vaccination against leptospirosis for humans, employers and staff members need to be aware of the disease, take precautions to avoid exposure and know what to do if a staff member suspects that they may have leptospirosis or displays symptoms consistent with the disease. Precautions to take against leptospirosis include:

- avoiding unnecessary contact with water that may be contaminated
- wearing gloves and eye protection when handling the tail end of animals to minimise urine contact (pregnancy testing, bang tailing etc.)
- covering all cuts or wounds with waterproof dressing
- washing hands and arms thoroughly after handling animals, carcasses or other contaminated materials
- avoiding hand to mouth (i.e. smoking), nose and eye contact when handling animals that may be infected
- washing and drying hands thoroughly before smoking or drinking
- controlling rodent populations
- instituting wild pig management programs
- vaccinating livestock with '7 in 1' vaccine against *Lepto Pomona* and *Hardjo* strains.

For further information regarding leptospirosis:

If you believe that you, or a staff member has leptospirosis contact your local doctor for testing. It is important to mention your risk factors or possible exposure to Lepto.

If you think that your livestock have leptospirosis please contact your DPIR Regional Veterinary Officer.

Darwin	(08) 8999 2035
Katherine	(08) 8973 9716
Alice Springs	(08) 8951 8181

Livestock movement and identification in the Northern Territory

The last edition of Animal Health News featured a section on livestock movement and identification in the Northern Territory, focusing on Property Identification Codes (PIC), Brands and National Livestock Identification System (NLIS) requirements. This article carries on from that, with information regarding livestock transport standards, requirements for moving livestock within the Northern Territory and for moving livestock into the Northern Territory from interstate. If you have any queries relating to livestock movement or identification, please do not hesitate to contact your local livestock biosecurity officer (see contact information at the end of this article).

Livestock Transport Standards (LTS)

The Livestock Transport Standards (LTS) were incorporated in NT Legislation and commenced in 2012.

The aims of the LTS are to have a consistent approach and responsibility across Australia for all persons involved in the handling, selecting, loading and transporting of livestock.

The LTS is in two sections:

Part A - General Standards (for each species.)

1 - Responsibilities and Planning.

2 – Stock handling competency.

3 – Transport vehicles and facilities.

4 – Pre-transport selection.

5 – Loading, transport and unloading.

6 – Humane Destruction.

Part B – 'Species Specific' Standards

It is a requirement of the LTS that all persons, who are involved in the handling, selecting, spelling, loading and transporting of livestock at all venues, must only load and handle livestock that are fit for the intended journey.

Further information on LTS requirements can be located at

https://nt.gov.au/industry/agriculture/livestock/moving-and-exporting-livestock/livestock-welfare-and-land-transport-standards

The standards have been agreed to be enforced under the Livestock Act with some standards subject to infringement notices if non-compliance is detected.

Moving Livestock within the NT

When moving livestock **within the NT**, the following requirements apply:

Animal / species	NT PIC	NT Waybill	Brands	NLIS device	Transport standards apply	Treatment for Cattle Tick (When moving out of tick zones)
Cattle*	✓	✓	✓	✓	✓	✓
Buffalo	✓	✓	×	✓	✓	✓
Horses (incl. mules and donkeys)	✓	×	×	×	✓	✓ + permit
Pigs	✓	✓	×	×	✓	×
Poultry	✓	×	×	×	✓	×
Sheep and goats	✓	✓	×	✓	✓	✓
Deer **	✓	✓	×	×	✓	✓ + permit *
Camels	✓	✓	×	×	✓	✓
Alpacas and llamas* *	✓	✓	×	×	✓	✓ + permit *
Honeybees	✓	×	×	×		×

* All cattle over the age of eight months must be branded

** Permit from NT Parks and Wildlife may be required

Moving Livestock into the NT from interstate

When moving livestock **into the NT from interstate**, the following requirements apply:

Animal / Species	Health Certificate and Waybill	NT PIC	Brands	NLIS Device	Johne's disease clearance	Transport standards apply	Treatment for Cattle Tick (When moving out of tick zones)
Cattle	✓	✓	✓	✓	✓	✓	✓
Buffalo	✓	✓	×	✓	✓	✓	✓
Horses (incl. mules and donkeys)	✓	✓	×	×	×	✓	✓ + permit
Pigs	×	✓	×	×	×	✓	×
Poultry	×	✓	×	×	×	✓	×
Sheep and goats	✓	✓	×	✓	✓	✓	✓
Deer *	✓	✓	×	×	✓	✓	✓ + permit *
Camels	✓	✓	×	×	✓	✓	✓
Alpacas and llamas *	✓	✓	×	×	✓	✓	✓ + permit *

Animal / Species	Health Certificate and Waybill	NT PIC	Brands	NLIS Device	Johne's disease clearance	Transport standards apply	Treatment for Cattle Tick (When moving out of tick zones)
Honeybees**	✓	✓	×	×	×		**

* Permit from NT Parks and Wildlife may be required.

** Must have health certificate confirming they do not have European foulbrood, American foulbrood and small hive beetle.

You do not need a permit to move pigs, pigeons and poultry.

http://brand.primaryindustry.nt.gov.au/ http://pic.primaryindustry.nt.gov.au/
https://nt.gov.au/industry/agriculture/livestock https://www.nlis.com.au/

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