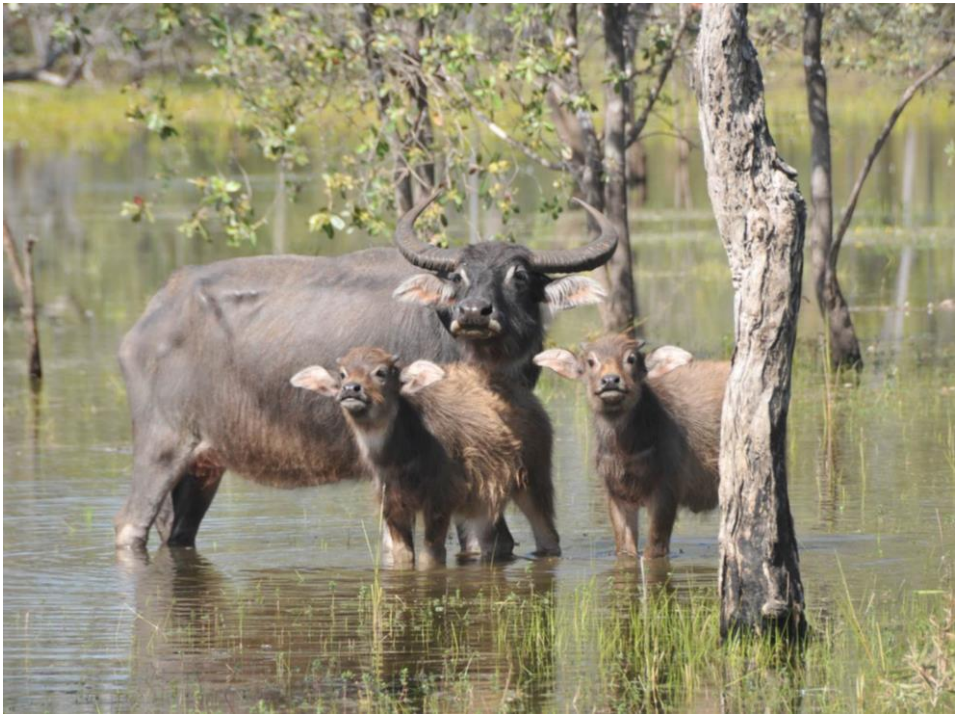
DEPARTMENT OF
PRIMARY INDUSTRY AND RESOURCES

Buffalo Biosecurity Manual 2016



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NORTHERN TERRITORY GOVERNMENT

The importance of biosecurity

Biosecurity is a set of measures which are designed to protect people and animals from diseases, pests and weeds.

This manual covers the basic biosecurity measures and welfare requirements of buffalo. It does not cover the husbandry or nutritional management of buffalo.

Biosecurity is your responsibility, and that of every person visiting or working with buffalo and other livestock.

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Last updated 05/10/2016 For more information visit **www.nt.gov.au**

Biosecurity guidelines

Biosecurity is your responsibility, and that of every person visiting or working with buffalo and other livestock.

Record Keeping

A number of paddock data management programs are available. As a bare minimum, the use of NT waybill records, management ear tags and NLIS transfers will assist in determining which stock have been introduced if there is ever a biosecurity issue which requires tracing.

Staff Training

- Ensure staff are aware of the significance of biosecurity issues.
- Ensure all staff have a good understanding of work practices that minimise the risk of disease or pest transmission.
- Staff should receive regular training on relevant biosecurity matters and records of training should be maintained for the duration of the employment of the staff member.

Disposal of carcases

Whenever possible, carcasses of livestock that have died on your property should be disposed of. Methods of disposal including burning, burying or putting in an area that has been fenced off so stock are unable to access. If carcases cannot be removed, take care to ensure that carcases suspected of having had a disease and all stock that have died in or near watering points are disposed of.

Introduction of new animals

Ensure that new livestock introduced to your property are free of disease and isolated for one week.

Restricted Animal Materials

Buffalo are ruminants, and there is a national ban on feeding Restricted Animal Materials (RAM) to all ruminants to prevent the establishment of bovine spongiform encephalopathy (mad cow disease). RAM includes meat, meat and bone meal, blood meal, poultry offal meal, feather meal, fishmeal or any other animal meals or manure.

To meet your legal responsibilities, ensure you:

1. Read stockfeed labels to ensure they do not contain RAM. Feeds which contain RAM, such as chicken, dog and pig feed, should have a label warning:

> **This product contains restricted animal material.**
>
> **DO NOT FEED TO CATTLE, SHEEP, GOATS, DEER OR OTHER RUMINANTS**

2. Clean machinery of all RAM to prevent cross contamination
3. Ensure livestock do not have access to feed containing RAM
4. Choose feeds that have been designed and labelled for feeding to ruminant animals only

For further information go to www.animalhealthaustralia.com.au/what-we-do/disease-surveillance/tse-freedom-assurance-program/australian-ruminant-feed-ban/

Food quality and supply

Important factors to consider in relation to food quality and supply:

- Ensure that stock feed is inspected prior to purchase, or on delivery to check for pests, mould, contamination or damage
- Stock feed should be stored in areas where it will not be contaminated by other animals and other feed sources.
- Stock feed should be stored in a dry place where it will not sweat, or get wet as this will result in mouldy feed, which is at least unpalatable or at worst toxic.

Welfare

Land Transport Standards

The LTS apply to agents, owners, transporters and receivers to ensure the welfare of livestock being transported by road. Penalties apply for non-compliance with these standards.

Standards are outlined below. For more detailed information, see the **Land Transport of Buffalo Standards in the NT** at www.nt.gov.au/industry/agriculture/livestock/moving-and-exporting-livestock/livestock-welfare-and-land-transport-standards

Key points

Buffalo are susceptible to heat stress.

A person in charge must take reasonable steps to minimise the impact of extreme weather conditions on the welfare of the buffalo during the transport process.

Buffaloes should be hosed as much as possible during the transport process, for example every 300 km after loading, as well as before unloading.

Dogs must not be used to move buffalo during the transport cost.

Responsibilities and planning

A person in charge must exercise a duty of care to ensure the welfare of buffalo under their control and compliance with the livestock transport standards. During the transport process, buffalo welfare is the responsibility of

The **consignor**, for

- mustering and assembling of buffalo
- handling
- preparation, including inspection and selection as 'fit for the intended journey'
- feed and water provision
- holding periods before loading

The **transporter** for

- the loading including final inspection during loading as 'fit for the intended journey
- the loading density
- additional inspections of buffalo
- spelling periods during the journey
- unloading

The **receiver,** after unloading.

If a person in charge reasonably expects the journey time to exceed 24 hours, the transporter must possess a record which is accessible at the road side and that specifies:

- the date and time that the buffalo last had access to water
- the date and time buffalo inspections and any welfare concerns and actions taken
- emergency contacts.

A person in charge who is transferring responsibility for buffalo to be further transported for a total journey time of longer than 24 hours must provide a record with this information to the next person in charge.

Transport vehicles and facilities for buffalo

A person in charge must ensure that the vehicles and livestock handling facilities are constructed, maintained and operated in a way that minimises risk to the welfare of buffalo.

Vehicles and facilities must:

- be appropriate to contain buffalo; and
- have effective airflow; and
- have flooring that minimises the likelihood of injury or of buffalo slipping or falling; and
- be free from internal protrusions and other objects that could cause injury; and
- have sufficient vertical clearance for buffalo to minimise the risk of injury.

Pre-transport selection of buffalo

Buffalo must be assessed as fit for the intended journey at every loading by a person in charge. **A buffalo is not fit to load if it is:**

- unable to walk on its own by bearing weight on all legs; or
- severely emaciated; or
- visibly dehydrated; or
- showing visible signs of severe injury or distress; or
- suffering from conditions that are likely to cause increased pain or distress during transport; or
- blind in both eyes; or
- known to be, or visually assessed to be near (within two weeks) calving, unless time off water and journey is less than four hours duration to another property.

Buffalo 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.

Loading, transporting and unloading of buffalo

A person in charge must ensure time off water does not exceed the time periods given below for each class of buffalo:

Class	Maximum time off water (hrs)	Minimum Spell duration (hrs)
Adult buffalo over 6 months old	36	24
Buffalo 1–6 months old	24	12
Buffalo known to be more than 7 months pregnant excluding the last 4 weeks	24	12
Lactating buffalo with calves at foot	24	12

If the maximum permitted time off water is reached, the person in charge must provide the buffalo with a spell (water, food, space to lie down and rest) according to the table above before continuing the current journey or before starting another journey.

The person in charge must manage time off water to minimise risk to the welfare of the buffalo according to:

- the increased risk to buffalo welfare of longer journeys close to the permitted maximum time off water; and
- the assessment of whether the buffalo are fit for the remainder of the intended journey; and
- the predicted climatic conditions, especially heat or cold; and

- the class of buffalo, especially if weak, pregnant, recently having given birth, lactating or immature; and
- the nature of the intended journey.

If no records are provided indicating the last time the buffalo had access to water, buffalo at a livestock handling facility (saleyard, spelling facility or staging point) must be provided with reasonable access to water by the person in charge within 24 hours at the facility, or within the maximum time off water relevant to the class of animal if this is less than 24 hours.

The driver must assess the loading density for each pen or division in the livestock crate. Minimum space allowances for buffalo on transport are:

Mean live weight (kg)	Minimum floor area (m^2/head)	Number of head per 12.5m x 2.4m deck
200	0.69	43
250	0.77-0.79	38
300	0.86-0.89	34
350	0.98-1.01	30
400	1.05-1.09	28
450	1.13-1.18	26
500	1.23-1.28	24
550	1.34-1.40	22
600	1.47-1.55	20
650	1.63-1.73	18-17

Handling

A person involved in any part of the buffalo transport process must be competent to perform their required task, or must be supervised by a competent person.

A person who handles buffalo in the transport process must do so in a manner that is appropriate to the class, and minimises pain or injury. Specifically:

- buffalo must not be lifted by only the head, ears, horns, neck or tail; or
- buffalo must not be lifted off the ground by a single leg
- mechanical lifting of buffalo must ensure that the buffalo is supported or secured as necessary; or
- buffalo must not be thrown or dropped; or
- buffalo must not be struck in an unreasonable manner, punched or kicked; or
- buffalo which are unable to stand must not be dragged, except in an emergency to allow safe handling, lifting, treatment or humane destruction.

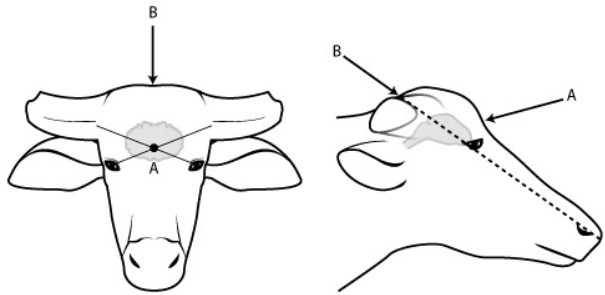
A person who handles buffalo in the transport process must not use an electric prodder:

- on genital, anal or facial areas; or
- on buffalo under three months old; or
- on buffalo that are unable to move away; or
- excessively on an animal.

Humane destruction

Humane destruction methods must result in rapid loss of consciousness followed by death while unconscious, and the person humanely destroying buffalo must take reasonable action to confirm that it is dead.

The recommended method of euthanasia is a firearm in the frontal position. Powerful 0.30-calibre centre fire cartridges with hard projectiles are recommended larger animals and bulls. For calves, use at least a standard 0.22-long rifle cartridge.



Note: Operators should consider the angle of impact, because buffalo tend to lift their nose when looking directly at the shooter. Horns in adults make the temporal aim point impractical.

Blunt force trauma and bleeding out by neck-cut must not be used to destroy buffalo.

Dehorning and tipping

Dehorning or tipping is not essential under the land transport standards. Under the **Australian Standards for the Export of Livestock** (ASEL 2011), horned buffalo must only be sourced for export as slaughter animals if

- the horns are no longer than the spread of the ears and are blunt; and
- if de-horned, wounds are healed.

Allowable methods for dehorning or tipping buffalo include:

- Specially designed angle grinders with tungsten tip blade
- Pneumatic/ hydraulic cattle dehorners
- Embryotomy wire or hand saw
- Reciprocating saw (best 18V 24V metal fine tooth, ¼ rise).

All methods require significant restraint on head movement. Avoid cutting horns too short and always give a sufficient period to allow trimmed horns to heal before transporting. Cauterizing the main blood vessels with a hot iron can reduce blood loss and reduce healing time)

Other methods of dehorning buffalo are no longer acceptable and risk prosecution under animal welfare legislation.

Movement requirements

Any person moving buffalo between properties needs to be aware of their obligations under the *Livestock Act*.

NLIS tags and NLIS uploading

Buffalos are required to have NLIS devices (radio frequency identification- RFID) in their ears prior to moving from their property of origin.

- The owner of the **property of origin** is responsible for ensuring that all animals are identified with an NLIS device before moving them.
- The owner at the **place of destination** is responsible for ensuing scanning of NLIS devices, and entering these and the PIC of origin and PIC of destination into the national NLIS database within **48 hours of the movement**.

In extenuating circumstances, the owner or person in charge of the buffalo may apply to the Registrar to move animals without NLIS devices. Permission could be granted for buffalo to move from the origin to a suitable yard where they can be NLIS tagged. Permission will **not** be granted for requests such as no time to organise devices or tags, lack of equipment such as pliers or staff or poor infrastructure. Contact the Principal Livestock Regulatory Officer to discuss this.

Brands

There are no legislative brand requirements for buffaloes.

The owner is permitted to apply a registered brand or paint brand, but this is not part of the movement requirements for buffaloes.

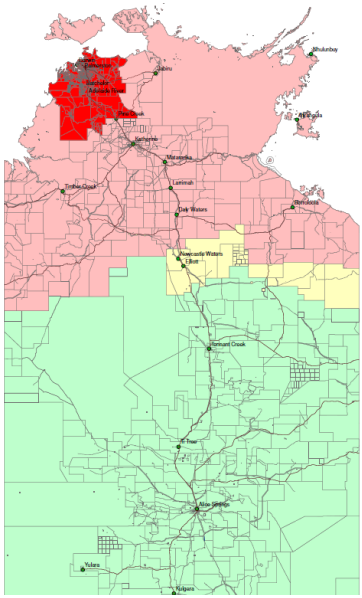
Waybills

All movements of buffalo must be accompanied by a completed waybill. Waybill books can be purchased from your local DPIR office, or ordered online at https://nt.gov.au/industry/agriculture/livestock/moving-and-exporting-livestock/nt-waybills

Cattle tick inspection & treatment

The Northern Territory has four cattle tick zones;

- the Parkhurst zone (**red**)
- Infected zone (**pink**)
- Control zone (**yellow**)
- Free zone (**green**).



Buffalo moving from

- the **Parkhurst zone** to any other zone or;
- the **Infected Zone** to the control and/or free zones

need to have a clean inspection and treatment for cattle tick by an authorised Livestock Biosecurity Officer. Plunge dips in the Parkhurst Zone must contain Amitraz; dips in the Infected Zone can be Bayticol or Amitraz.

Handling & management

Capture of buffalo

Acceptable methods of capture include:

- normal mustering, with or without coachers using horses;
- motor bikes or other vehicles;
- mustering by fixed or rotary wing aircraft;
- trapping onto water or lure trapping using hay/molasses or other attractants;
- tail-throwing and strapping of individual animals;
- roping and casting of individuals
- use of bull-catching vehicle fitted with a 'bionic arm' to catch individual animals, particularly large bulls

Unacceptable methods of capture include:

- deliberate chasing to exhaustion
- catching the animal and leaving it trussed prior to collection
- intentional impact from motor vehicles

Holding yards

Stress and/or injury to buffalo is reduced by well-designed holding yards. Yards should be located in areas where there is adequate shade with enough area to allow animals to lie down. Buffalo should be hosed or under reticulation to prevent overheating. Holding captured buffalo in small yards or under crowded conditions for extended periods is unacceptable.

When practical, buffalo should be separated based on size and temperament to minimise injury. Excessively nervous or dangerous buffaloes should be culled from live export consignments and either destroyed or sent to abattoir or pet meat operator.

Feed

Buffalo need access to feed at a minimum of every 24 hours. Buffalo in poor condition should not be without food for longer than 12 hours.

Buffalo feed products need to be free of contaminants and Restricted Animal Materials (RAM). Buffalo are up to four times more sensitive than cattle to ionophores, such as Rumensin®, that are commonly found in cattle rations. Seek nutritional advice if intending to feed buffalos supplement containing ionophores.

Water

Buffalos require approximately 25-30% more water than cattle under the same conditions. Buffalo should not be deprived of water for more than 12 hours, unless in transit. Note that dehydrated buffalo may engorge themselves when given access to water and deaths may occur.

Caring for orphaned buffalo calves

Due to their highly social nature and strong instincts, buffalo mothers and calves will form a strong bond. As a result, separation from or loss of their mother will cause buffalo calves to become more stressed than cattle calves. To reduce stress:

- Keeping orphaned buffalo calves together in groups of at least 5, together with an older, domesticated animal.
- Give adequate shade, water and a wallow or sprinkler system in yards.- buffalo calves are just as susceptbible to heat stress as adult cattle.

If orphaned calves are not willing to be fostered by a lactating cow, or take to a bottle or bucket feed, up to 25% will die.

AGE	Good Quality Hay	SUPPLEMENT (one of the following)
0-3 MONTHS (under 75 kg)	Feed to appetite Approx. 1-2 bales per 10 head	Lucerne chaff/calf pellets – 150 g/head/day, or; Cracked sorghum/cotton seed meal – 150 g /head /day
3 – 6 MONTHS (75-125 kg)	Feed to appetite Approx. 3 bales per 10 head	Lucerne chaff/calf pellets – 250 g/head/day, or; Cracked sorghum/cotton seed meal – 250 g /head /day
6 – 12 MONTHS (125-175 kg)	Feed to appetite Lot feed in a group for at least one month prior to putting them with a domesticated herd.	Lucerne chaff/calf pellets – up to 500 g/head/day, or; Cracked sorghum/cotton seed meal – up to 500 g /head /day

Conditions brought about by poor handling of buffalo

Buffalo Stress Syndrome

Prolonged overheating can result in brain damage in the animal. Running buffaloes long distances using vehicles or helicopters, hot, humid weather and no shade in holding yards are contributing factors.

Buffaloes will often engorge themselves on water when overheated. This can lead to a death like state and paralysis similar to that seen in Botulism. The only available treatment is to cool the buffalo down by spraying water on them. In some cases the buffalo will die, or have to be destroyed. Buffalo that survive may show signs of ill thrift because of stress induced infections, ulcers and kidney and liver infections.

Fish Muscle

Fish Muscle is a result of significant stress prior to slaughter. No evidence of fish muscle will be seen until the animals are being boned after slaughter. White sections of muscle will be seen in the thigh and shoulder regions. This meat is then condemned for aesthetic reasons.

Note that rough capture and inadequate handling facilities may cause bruising of muscle.

Hypoglycaemia

Commonly referred to as low blood sugar, buffaloes transported for an extended period without feed can become hypoglycaemic.

Capture myopathy

This condition occurs after excessive or prolonged exertion, causing high levels of lactic acid in muscle resulting in muscle necrosis. Capture myopathy is associated with severe pain.

Diseases

Buffalo are generally affected by similar parasites and diseases as cattle. It has been found that, in most cases, buffalo are not affected as severely.

Report any unexpected deaths, abnormal behaviour and unusual disease symptoms in buffalo to your regional Veterinary Officer of the Emergency Animal Disease Watch Hotline on 1800 675 888.

A selection of relevant disease are discussed below.

Toxocara vitulorum (parasitic roundworms)

This type of parasitic roundworm has been found in buffalo calves in the Darwin area over the last few years. It is passed through worm eggs in the faeces. Cattle do not usually show signs of the parasite, however in young calves the worm competes for nutrients and can cause blockages in the gut which can become fatal. Signs may include diarrhoea (pasty white in colour or with blood or mucus), lack of appetite, swollen and painful abdomen, weight-loss, constipation and dehydration.

Diagnosis is based on detection of eggs in the faeces. A combination of strategies is required for successful control of T. vitulorum infections, including:

- Reduction of faecal contamination of pastures where pregnant buffalo cows graze, by keeping pregnant cows off pasture which has held young claves
- Rotation of paddocks with other species who are not infected by this worm
- Routine use of a dewormer effective against adults and larvae T. vitulorum in the gut. Calves should be treated at 2 to 3 weeks of age.

Buffalo flies

Buffalo flies are commonly found in the Northern Territory, particularly in the more tropical regions. Buffalo flies can have a significant impact on production as a result of lowered weight gain and permanently damaged hides, if heavy burdens go untreated. If levels of buffalo flies are more than 200 flies per animal (100 each side), control methods including insecticidal ear tags, back rubbers and sprays, pour-ons or spot treatments can be used.

Cattle tick

Cattle ticks are not commonly found on buffalo, however they may be found in instances where buffalo are stressed and in poor condition, and/or have been mixed with tick infested cattle. Cattle ticks can cause loss of condition due to loss of blood, and can also transmit organisms that result in tick fever. Control of cattle tick is by plunge dip, pour on or injectable tickicide chemicals.

Buffalo lice

Buffalo louse has been found on calves, camels and buffaloes in the NT. The eggs of buffalo louse are often easier to see than the lice as they are cream in colour and can be found attached to the hairs on the animals coat. The lice are quite large, growing up to 6mm in length and are grey in colour.

Signs of buffalo lice include rubbing on fences, trees, etc. The coat may appear rough from continuous rubbing, and in some cases the skin will be exposed. If a severe infestation occurs, stock will lose condition and may become anaemic.

Buffalo lice can be controlled with pour on lousicides and synthetic pyrethrin based pour-on applied in two doses, 16 days apart. It is recommended that all new buffalo are quarantined and treated on arrival to a new property. They should not be introduced in to the herd until deloused (approximately 1 month). If buffalo lice are found on your herd it is recommended that you treat all stock on the property at the same time.

Clostridial diseases

Clostridial diseases are caused by bacteria from the *Clostridium* genus of bacteria. These bacteria are widespread in the environment and normally found in soil and faeces. Clostridial diseases include tetanus, blackleg, Black disease, malignant oedema, pulpy kidney and botulism.

Clinical signs vary on the type of bacteria involved, but these diseases are often fatal. Prevention of clostridial disease relies on vaccination- the well known ‘5 in 1’ vaccine protects against tetanus, malignant oedema, Black disease, enterotoxaemia and blackleg. A separate vaccine is available for botulism.

Botulism

Botulism is a disease which commonly affects cattle in the NT; buffalo may also be infected. It is caused by ingestion of *Clostridium botulinum* bacteria or toxin which is found in rotting carcases. It can be associated with phosphorus and protein deficiency where stock chew carcases. The first sign of botulism may be dead cattle.

The disease causes paralysis which results in drooling, incoordination and downer animals. Vaccination with Botulism vaccine, phosphorus supplementation and preventing access to animal carcases can assist in preventing botulism.

Leptospirosis

Leptospirosis is a contagious disease caused by the bacteria Leptospira. This disease can infect animals and humans. There are 1-4 cases of Leptospirosis reported in humans per year in the NT.

People can become infected with leptospirosis by contact with contaminated cattle or buffalo urine, or water, mud, soil or vegetation that has been contaminated with animal urine. Handling the foetus of an aborted calf, or assisting with calving can be a further source of infection for humans.

While there is a vaccination available for buffalo, vaccination against leptospirosis is not a common practice on NT properties. All staff should practice good hygiene when handling buffalo, and avoid coming into contact with urine or birthing fluids from cows (particularly when they have aborted). “7in 1” vaccine can be used for “lepto”.

Cryptosporidium

This parasite can affect animals and humans, and has been found in faecal samples taken from both wild and farmed buffalo in the NT. The parasite is transmitted by the faecal oral route. It is commonly spread by the consumption of contaminated water. There is no specific treatment for this disease, and affected stock will usually recover on their own. Practice good hygiene and management to reduce the risk of spreading infection, by always washing hands after handling buffalo, and ensuring yards and feed and water troughs are kept clean and manure is removed.

Bovine ephemeral fever ('three day' sickness)

Bovine Ephemeral Fever, more commonly known as "three day", is a viral disease of cattle and buffalo. Three day is endemic to the Top End of the Northern Territory, with cases having been reported in Darwin, Katherine and Barkly regions. To date there have been no cases reported in the Alice Springs region.

Three day is spread by mosquitoes and biting midges, so seasonal conditions will determine the distribution of the disease. Three day is most commonly seen in the wet and early dry season, when mosquito numbers are higher. Three day disease can vary in severity. In mild cases, signs include fever, discharge from eyes and nose, muscle tremors, temporary lameness and laying down. These animals will usually make a complete recovery in three days, and will become immune to the virus. In severe cases, particularly when heavier stock such as bulls are affected, the disease can progress to lying down, joint swelling, loss of appetite, paralysis of limbs, salivation and even death. Calves under the age of 6 months are rarely affected.

The number of stock affected by three day can vary depending on the immunity of the herd. Cattle and buffalo from properties located in the more northern parts of the NT will generally have a good immunity to three day due to constant exposure.

Treatment options are reasonably limited for this disease. It is important to ensure that animals that are down are provided with shade, food and water. The animal should be propped up so it is resting on its brisket as opposed to its side to reduce the chance of lung infections or bloat developing. Extra caution should be taken when bringing buffalo from southern areas of Australia into the northern areas of the Northern Territory as these animals will generally not have any immunity to three day.

For further information regarding this disease, please refer to the three day Sickness or Ephemeral Fever Agnote found at: https://cmsexternal.nt.gov.au/__data/assets/pdf_file/0019/233074/640.pdf.

Enzootic bovine leucosis

Enzootic bovine leucosis is a notifiable disease and must be reported to the Chief Veterinary Officer if it is suspected or confirmed.

Enzootic bovine leucosis (EBL) is a virus which can infect cattle and buffalo, causing a small proportion of infected cattle to develop lymphoid tumours which affect all body organs. The virus can be spread via blood or milk from an infected animal. This disease is rarely seen.

Once infection is established, the animal cannot recover. The main signs are loss of condition, reduced appetite, weak and anaemic. Large tumours may be visible, however sometimes affected animals will show no signs. Death usually occurs 2 to 3 weeks after signs are observed.

If you see suspect EBL in an animal, or see unusual changes to an animal at post mortem, contact your regional DPIR veterinary officer, livestock biosecurity officer or the Emergency Animal Disease Watch Hotline on 1800 675 888 for testing and investigation of the case.

Bovine tuberculosis

Bovine tuberculosis is a notifiable disease and must be reported to the Chief Veterinary Officer if it is suspected or confirmed.

Australia was declared free of bovine tuberculosis (bovine TB) in 1997, after the Bovine Tuberculosis Eradication Campaign (BTEC), which lasted for more than 20 years. Bovine TB can affect buffalo, cattle and other mammals, including humans. The last reported case of TB in buffalo occurred in 2002.

Bovine TB is caused by a bacteria, *Mycobacterium bovis*, which is transmitted to other cattle via the milk, faeces, urine and semen of infected animals.

Once the disease has become advanced, affected stock are skinny, weak and have a reduced appetite. In the final stages of the disease, animals may have a moist cough and swollen lymph nodes in the neck. Hard, yellow masses (abscesses) may also be seen in the lungs and lymph nodes at slaughter.

If you see suspect bovine TB in an animal, or see unusual changes to an animal at post mortem, contact your regional DPIR veterinary officer, livestock biosecurity officer or the Emergency Animal Disease Watch Hotline on 1800 675 888 for testing and investigation of the case.

Buffalo biosecurity checklist

Staff competency

Staff are aware of their obligations under the Livestock and Animal Welfare Acts ☐
Staff are aware of biosecurity requirements ☐
Staff practice good hygiene ☐
Staff are competent in handling buffalo, or supervised by a competent person ☐
Animal and people (including staff and visitor) movements are recorded ☐

Mustering and processing

Acceptable capture techniques are used ☐
New buffalo free from disease and isolated for at least one week ☐
Staff are capable of applying humane destruction methods ☐
Carcases are removed ☐
Dehorning is done with an allowable method, and horns are not cut too short ☐
Any unusual disease is reported to the EAD Watch Hotline on 1800 675 888 ☐
Approved use of chemicals is recorded ☐

Yarding

Safe feed and water is available in the yards ☐
Stock feed does not contain RAM or weed seeds ☐
Stock feed does not contain excessive amounts of ionophores ☐
Sprinklers are regularly used to cool buffalo ☐
Attention is paid to fodder and vehicle biosecurity ☐

Before transport

Every buffalo has a NLIS tag ☐
All buffalo are fit to load ☐
De-horning wounds have properly healed ☐
The trip is planned to comply with the Land Transport Standards ☐
A waybill is completed for the movement and accompanies the buffalo ☐
Buffalo have been inspected & treated for ticks (where required) ☐

During transport

Buffalo are cooled with water spray as required ☐
Transport is during in the coolest part of the day ☐

After transport

The receiver of the buffalo transfers data to the NLIS database transfer with 48hrs ☐