

ANIMAL HEALTH SURVEILLANCE

Information contributed by staff of the Livestock Health and Pest Authorities and Industry & Investment NSW

Bovine ephemeral fever epidemic in the North West

Although sporadic cases are seen in most years, bovine ephemeral fever tends to occur in epidemics in the north-west region of NSW. After an extremely dry 2009, most areas of the North West LHPA received rainfall in excess of 200 mm in late December and early January, with good follow-up falls occurring, especially in the western areas of the Authority. A wave of ephemeral fever cases began around Walgett in mid January and spread easterly towards the slopes—not westerly as is usual. There were fewer cases east of the Newell Highway, but the viral RNA real-time polymerase chain reaction (PCR) test confirmed clinical disease as far east as Gravesend and Inverell. Few cases were seen north of Moree. By mid March, reports of new cases in general had markedly decreased.

A full spectrum of clinical signs associated with the disease was observed. The majority of severe cases involving prolonged recumbency and deaths occurred around and west of Walgett. This may have been due to onset of the disease coinciding with a period of extremely hot and humid weather, with temperatures hovering around 40 °C on many days. Deaths secondary to dehydration and musculoskeletal damage were observed during this time. Clinical signs observed in cases in the Narrabri region involved lameness, recumbency and a clinical course of 3 to 5 days. East of Narrabri, the syndrome appeared to be one more of lameness than recumbency. Excessive drooling, usually a feature of the disease, was not a reliable sign in many cases confirmed by PCR testing. Also, a number of young weaned, and even unweaned, calves were reported to be suffering from classical signs of ephemeral fever. Presence of the virus in these animals

was confirmed in two cases. In any single herd, up to 10% of cattle were reported to have shown clinical signs of disease.



Bovine ephemeral fever. Photo: Libby Read

For further information, contact Libby Read, DV North West LHPA, on (02) 6792 2533.

Suspected invasive colonial sea squirt (*Didemnum vexillum*) in Twofold Bay

In March 2010, divers contracted to the Department of Defence reported a suspected discovery of the invasive colonial sea squirt *Didemnum vexillum* in Twofold Bay in southern NSW. The marine pest, which is recognised as a national pest of concern, was found on the pilings of two wharfs. Twofold Bay is an international shipping port, and these wharves are regularly used by both government and national and international commercial vessels.

The suspected invasive colonial sea squirt was also found on the infrastructure of a commercial mussel farm in Twofold Bay.

The pest has until now been regarded as exotic to Australia. It can smother large areas, including those where commercial oysters and mussels are grown. It can also foul structures such as boats.

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I&I NSW has established an Incident Management Team and appointed an Incident Controller to coordinate and lead the development of an appropriate response to the suspected colonial sea squirt presence.

Samples from the original surveys undertaken by Department of Defence were confirmed by an Australian expert taxonomist as *D. vexillum*, but results of genetic analysis to confirm this identification are still pending.

I&I NSW have been undertaking extensive surveys both within Twofold Bay and in other at-risk estuaries and ports, and to date the sea squirt has not been detected.

On 10 April 2010, I&I NSW implemented a quarantine order and associated movement controls to minimise the risk of transferring the suspected *D. vexillum* to other ports in NSW and elsewhere in Australia.

I&I NSW is working closely with the National Consultative Committee on Introduced Marine Pest Emergencies (CCIMPE). Through this Committee it has provided up-to-date information, including details of ship and product movements, to ports in other jurisdictions.

Didemnum grows on hard surfaces (down to a depth of at least 80 metres); it can be extremely abundant on mussel-growing ropes and can overgrow and kill mussels. When oyster strings in the USA have been pulled out of the water (to harvest the oysters), pieces of *Didemnum* have sloughed off, resulting in spread.

Colonies tend to regress in the winter months (at least in the Northern Hemisphere winters), but persist as small patches.

I&I NSW is developing control options based on experiences in New Zealand and the USA. Studies in these countries note that the most successful and cost-effective control method for *D. vexillum* on wharf pilings is thorough wrapping of the pilings with heavy-duty plastic. Control options are also being considered for mussel farm infrastructure.



Suspected infestation of the invasive colonial sea squirt *Didemnum vexillum* being investigated at Twofold Bay.
Photo: Aqueal Pty Ltd

For further information, visit www.industry.nsw.gov.au/info/seasquirt or contact **Melissa Walker, Strategy Leader Aquatic Biosecurity Pests**, on (02) 4916 3911.

Low-pathogenic avian influenza in chickens

The Elizabeth Macarthur Agricultural Institute Virology Laboratory detected low pathogenic avian influenza (LPAI) virus caused by subtype H10N7 in cloacal and tracheal swabs from a poultry breeder farm in NSW. New microarray technology led to rapid identification to subtype level within 24 hours.

The flock had a slight increase in mortality and a 15% drop in egg production. Autopsy of dead birds revealed swollen kidneys and various degrees of visceral gout. No respiratory signs were evident.

LPAI with the H10 antigen, including the specific subtype H10N7, has previously been identified in NSW in wild waterfowl in June and July 2009.

No evidence of the presence of wild waterfowl on the property was reported this year. Last year, when wild water fowl were present, a research project did not detect LPAI virus in them.

An incursion of H6N4 into this poultry farm was also identified in 2006. It was associated with a similar clinical picture, but visceral gout was not a feature then. Subsequent surveillance in the immediate area showed serological evidence of the presence of this subtype in breeder ducks located approximately 1.5 kilometres away from the breeder farm. No active infection was found in the ducks, and only the older flocks had serological evidence of exposure.

As avian influenza viruses are not recognised to be transmitted vertically, the flock is allowed to continue operation. The situation on the farm is being monitored.

The incursion of LPAI viruses into the breeder farm despite the good biosecurity practices on the farm raises many, as yet unanswered, questions regarding the source and the mode of entry.

For further information contact **George Arzey, Technical Specialist Poultry, I&I NSW**, on (02) 4640 6402.

Actinobacillosis infection in a cow

A cow on a property in the northern New England region lost condition and began drooling saliva. The owner notified the district veterinarian, who observed large quantities of serous oral discharge and a crusting nasal

discharge. There were no clinical signs in other cattle in the mob.

The cow's mouth was covered with areas of granulating erosion. They were not dissimilar to old ruptured vesicles with secondary bacterial infection, so samples were taken for foot-and-mouth disease exclusion testing. Results were negative. The diagnosis on clinical grounds was actinobacillosis. Antibiotic treatment with sodium iodide and procaine penicillin was successful in healing the infection.



Foot and mouth disease was excluded in this cow. Photo: Andrew Biddle



Granulating erosions in the buccal cavity. Photo: Andrew Biddle

For further information contact Andrew Biddle, DV New England LHPA, on (02) 6732 1420.

Worms in the west

Worms are not normally a problem in the Western Division, but with the ideal, rainy weather conditions in the first quarter intestinal worm burdens increased significantly. One property had approximately seven ewes die out of 2000. The faecal egg count reported by the laboratory was approximately 68 000 *Trichostrongylus* sp. eggs per gram.

Another property in Weilmoringle had more than 100 sheep die of parasitic disease from *Haemonchus contortus*. The mucous membranes of affected sheep were white. On post mortem examination, the blood was like pink water

and the abomasums were full of barber's pole worms. A post mortem was done on four sheep, two ewes and two 10-month-old lambs; the faecal egg counts varied from a strongyle egg count of 18 400 to 45 000 per gram.



Severe anaemia in a sheep. Photo: Kylie Greentree



High barber's pole worm burdens caused sheep deaths in the Western Division. Photo: Kylie Greentree

For more information contact Kylie Greentree, VO I&I NSW Bourke, on (02) 6872 2077.

Three pig disease investigations

Bacterial infections caused low growth rates and respiratory disease in 7- to 10-week-old weaner pigs on a 150-sow piggery. Farm investigation and necropsy results ruled out porcine circovirus associated disease (PCVAD). Lung culture yielded mixed bacterial growth.

An environmental audit of weaner housing revealed a number of housing and management issues that most likely increased infection pressure on the pigs, resulting in clinical disease. Parenteral and in-feed amoxicillin was administered to control acute disease and recommendations were made to improve the overcrowded weaner environment. Diarrhoea was also observed in 10- to 14-day-old sucker pigs from the same farm. Examination of faecal samples revealed *Isoospora suis* eggs. A preventive program of improved farrowing

house hygiene and prophylactic coccidiostat was recommended.

Actinobacillus pleuropneumoniae infection was diagnosed following an increase in coughing and pneumonia in 10- to 21-week-old growing pigs on an 800-sow piggery. The outbreak was most likely the result of the sudden change in ambient temperature moving from summer to autumn, along with lots of rain. Parenteral administration of penicillin to affected pigs and an increase in in-feed medication were implemented to prevent further deaths.

Sudden-onset vomiting, convulsions and death occurred in one sow, one gilt and one young boar on a 45-sow piggery. Clinical signs were first observed approximately 8 hours after the pigs were fed a home-mixed diet of wheat-barley-lupin mix cleaned from a silo in the morning. The owner suspected that the grain was moisture-affected. Necropsy of a dead gilt found that death was due to gastric rupture and peritonitis. Samples of feed were tested for lupin alkaloid and *Phomopsis*, with negative results. Further testing for mycotoxins is under way. Clinical signs abated when the diet was changed to the usual (clean) grain-based feed.

For more information contact Trish Harvey-Holyoake, Technical Specialist Pigs, I&I NSW, Wagga Wagga, on (02) 6938 1993.

We bid farewell to EBL

Starting as a voluntary control program in 1994, before progressing to a disease eradication program in 1999, the NSW Enzootic Bovine Leucosis (EBL) Program reached a major milestone in February 2010, with every dairy herd in NSW declared Monitored Free of the disease. This is a successful conclusion to a program that was initiated and funded by the NSW Dairy Industry, through the NSW Dairy Industry Conference, with regulation and administration provided by I&I NSW and Livestock Health and Pest Authorities.

EBL is a viral disease of cattle that can cause lymphomas in affected cattle. However, most infected cows do not show any signs of disease and the viral infection can be detected only by blood or milk testing. When the program started, 25% of the State's 1700 dairy herds were infected with EBL. Over the next 16 years, EBL was eradicated from all NSW dairy herds through targeted extension, calf-rearing programs, detection and removal of infected cattle from herds, intensive bulk milk testing of larger dairy herds, and thrice yearly surveillance testing of bulk milk samples.

For further information, contact Dianne Ryan, RVO, I&I EMAI, on (02) 4640 6378.

Arsenic toxicity

The Lachlan LHPA identified the source of arsenic that killed 19 steers out of 100 in January. During a thorough paddock walk an old rubbish dump and old, open shed were identified. A distinct odour was noted on entering the old shed, where there were a number of heavy plastic bags containing a white substance on the ground. Laboratory testing confirmed the substance to be arsenic powder. It is thought that heavy rain in the 10 days previous, together with the arrival of young, inquisitive cattle on agistment, may have contributed to the poisoning.

For more information contact Eliz Braddon, SDV Lachlan LHPA, on (02) 6382 1255.

Hairy panic toxicity

Multiple cases of plant poisonings in sheep grazing hairy panic (witchgrass) occurred in the Wagga district during the quarter.

The poisoning caused liver damage, leading to photosensitivity, in sheep. Signs included runny eyes and swollen faces and ears from the photosensitivity. The liver damage also caused jaundice around the eyes and gums.

The noses of some affected animals also became blackened and crusty. In extreme cases there were significant production losses and death.

In one case, a farmer reported that, within a week of purchase and grazing of the grass, two out of 400 lambs had developed clinical signs; 3 days later 80 out of 400 of the lambs were ill, showing how quickly the problem had developed. This case illustrates the importance of quickly moving stock away from the hairy panic once initial signs are seen.

Affected sheep were treated by being put under good quality shade (e.g. in machinery sheds or shearing sheds) to avoid direct sunlight. Hay was fed during their recovery and water was supplied as normal. It was important not to feed high-protein feeds such as lupins or very good lucerne hay to affected sheep.

The general advice given to producers with stock susceptible to hairy panic toxicity is:

- Cattle are more resistant than sheep, and adult sheep are more resistant than weaner sheep.
- If weaners are checked daily for signs of photosensitisation and the mob is promptly removed at the first sign of trouble (e.g. swollen ears), losses should be minimal.
- The grass is most toxic when it is young, lush and growing rapidly.

- Sprayed paddocks containing dead hairy panic grass rarely cause problems.
- The main problems are seen when hairy panic makes up greater than 50% of the available feed. Supplementary feeding or access to another paddock with less hairy panic can therefore reduce the likelihood of problems.
- Introduced sheep suddenly exposed to hairy panic seem to be more susceptible than local sheep that have been more gradually exposed.

For further information contact Tony Morton, DV Hume LHPA, on (02) 6923 0903.

Benign theileriosis in Tweed Lismore

In mid November 2009 three cows and their young calves were moved from a property near Albury to a property near Lismore, NSW. They were mixed in a paddock with a group of 35 homebred cows. The property next door was under quarantine for cattle ticks. Six weeks after they were introduced, one of the cows separated from the herd and showed lethargy, aggression and inappetance. The next day it was found dead.

At necropsy, the carcase was jaundiced and both the spleen and liver were enlarged. The cut surface of the spleen had the consistency of jam. Laboratory testing of spleen smears was negative for anthrax. Brain and other smears were negative for *Babesia* and *Anaplasma*. Histological changes of the liver included areas of marked multifocal centrilobular hepatocyte necrosis surrounded by a cuff of markedly swollen and vacuolated hepatocytes. Brownish pigmented material was noted within hepatocytes and Kupffer cells. In the kidney many glomeruli contained vacuoles, many tubular epithelia contained finely granular brown pigment, and tubular epithelia at the corticomedullary junction were markedly vacuolated.

Two weeks after the initial sampling at necropsy, samples were collected from live cohorts, including the two other introduced cows, the three introduced calves and a homebred adult. The homebred adult had a packed cell volume (PCV) of 41 (normal 24 to 46). Less than 1% of RBCs contained *Theileria* organisms. By comparison, the introduced adults had PCVs of 20 and 24, with *Theileria* parasitaemias of 17% and 9%, respectively. The introduced cow with a parasitemia of 17% was also noted to have RBC anisocytosis. The introduced cow with a parasitaemia of 9% was clinically ill at the time of sampling, with pale mucous membranes, lethargy and inappetance. Laboratory biochemistry tests performed on this animal

were normal. The introduced calves had PCVs of 35, 30 and 28, with *Theileria parasitaemias* of 13%, 5% and 4% respectively. A pooled liver fluke ELISA on the two adult introduced cows was positive (S/P ratio of 79). A diagnosis of benign theileriosis and fascioliasis was made. The two adult cows were treated with a single long acting injection of oxytetracycline and rested. The introduced adult with clinical signs recovered. There were no further mortalities or signs of clinical disease.

For further information contact Matt Ball, SDV, North Coast LHPA, on (02) 6621 2317.

Footrot exclusion in north-west NSW

Lameness was noted in two ram mobs on adjoining properties near Carinda, south-west of Walgett. The flocks consisted of 5000 and 2500 sheep. Over 250 millimetres of rain had fallen in the district in previous weeks, creating conditions suitable for spread of footrot. In the first mob approximately 20 of 80 rams showed head-nodding when walking, and in the second mob approximately 15 of 70 rams were isolated from the mob because of lameness.

In both mobs, the cause of lameness was not footrot. None of the rams had interdigital lesions and laboratory tests were negative. Diagnosis varied from severely overgrown feet and 'shelly toe', to foot abscess and other infections.



A discharging foot abscess. Photo: Ted Irwin

Humpyback in sheep

Humpyback affected approximately 500 out of 5000 mature wethers in a number of mobs in early March 2010 on a property west of Carinda, in the North West LHPA.

Sheep on the affected property were being mustered for shearing and were in full wool. Of the 5000 wethers over 3 years of age, approximately 10% of each mob were affected by a syndrome of weakness, staggering and 'humped back'. The distance travelled by the affected

mobs was approximately 5 kilometres, but some wethers showed signs within a few kilometres.

Three typically affected wethers that had been transported by vehicle after showing signs during mustering were examined. They exhibited hindlimb paresis and knuckling of hind fetlocks. They had a mild humpy back stance and quickly tired and became recumbent if left alone. They were bright and alert and quick to rise if provoked.

There was no evidence of the condition in 2-year-old wethers and 2-year-old ewe mobs grazing similar paddocks. As the mature ewes had not been mustered, it could not be determined whether they were affected.

The property management indicated that a similar syndrome had occurred some 4 or 5 years before, but with a lesser incidence. Because of this prior experience the syndrome was quickly recognised and steps taken to transport affected sheep by vehicle as soon as they became recumbent. This measure probably contributed to the absence of deaths with this outbreak.

The property has received extremely high summer rainfall and as a result has plentiful pasture. Pasture includes native grasses to about 70 centimetres high, and a variety of forbs, including spiked mallow (*Malvastrum americanum*) and quena (*Solanum esuriale*). Because of the abundance and rapid growth of fodder, it was difficult to detect any plants at all in the pasture that showed signs of having been grazed. All paddocks contained similar feed.



Spiked mallow can cause humpyback in sheep. Photo: Shaun Slattery

For more information contact Shaun Slattery, Senior DV, North West LHPA, on (02) 6792 2533.

Urolithiasis causes deaths

Urolithiasis resulted in the deaths of three out of 45 wethers on a property near Condobolin. Two of the affected animals were found dead. The third animal was found in lateral recumbency and died a short time afterwards. On post mortem one animal was

found to have a ruptured bladder and cystitis. A second animal had cystitis, calculi within the bladder and obstruction of the urethra. Laboratory results found both animals to be uraemic, with serum urea levels of between 46.2 mmol/L and 76.9 mmol/L (normal 2.9 to 7.1 mmol/L), supporting the diagnosis of urolithiasis. The calculi were found to be 100% calcium oxalate crystals. The wethers had previously been grazing a native pasture paddock that also contained soft roly-poly (*Salsola kali* L. var. *kali*), spiny emex (*Emex australis*) and pigweed (*Portulaca* spp.)—all known to contain oxalates. At the time of the deaths the wethers had been recently moved to a stubble paddock. No further deaths occurred following removal from the oxalate-containing plants.

Urolithiasis due to calcium oxalate calculi is relatively uncommon, with calcium carbonate calculi tending to develop more commonly in animals grazing oxalate-containing plants. There was nothing significant in the history of these wethers to indicate why calcium oxalate crystals would have formed.

For further information contact Katharine Marsh, DV Lachlan LHPA, on (02) 6895 2152.

Unusual abscesses following heavy rain

The Wallangra area in the North West received about 20 centimetres of rainfall early in the quarter. A number of properties in this area were visited for an increased incidence of subcutaneous abscesses, mostly in calves. On one property, a mob of grown steers was examined for the presence of unusual lumps on the back. The steers had been running on a cultivation paddock of sorghum stubble. Three steers had large lumps around the tail and brisket. All lumps were filled with purulent material when lanced. One steer was heavily affected by abscesses on the rump and lumbar area (see photo on next page). A fourth steer was examined for a lump that was firmer and appeared neoplastic. It was removed under local anaesthetic and diagnosed as a benign melanoma.

The increased incidence of abscessation was blamed on the wet conditions affecting the dermal barrier, combined with riding behaviour noted in the mob. The purulent material was not cultured.

For further information, contact Ted Irwin, DV North West LHPA, on 6729 1528.



Multiple large subcutaneous abscesses. Photo: Ted Irwin



This cow had apparent blindness and a bloody nasal discharge
Photo: Ted Irwin



One lump was a benign melanoma. Photo: Ted Irwin



A tumour associated with the nasal cavity. Photo: Ted Irwin

TSE exclusion in a cow

An 8-year-old Angus-cross cow on a property north-east of Bingara, in the North West LHPA, was examined for a bloody nasal discharge, apparent blindness and general depression.

The cow had a mildly increased temperature and some visual deficits but was not totally blind. The chest sounded normal, although the cow's neck was outstretched, as can occur in pneumonia in cattle. There was also a snoring sound on respiration.

Because of the presence of neurological signs and the failure to respond to conservative treatment, the cow was euthanased and an autopsy performed for transmissible spongiform encephalopathy (TSE) exclusion. The chest and abdomen had no gross lesions suggestive of a cause, although an incidental finding of a renal cyst was interesting. When the skull was split for brain extraction, a large, amorphous, necrotising mass was present in the upper nasal cavity, with necrotic material and blood clots extending into the nasopharynx. The mass was directly below the optic nerves and was putting pressure on this section of the skull, explaining the visual impairment observed.

The mass was diagnosed as neoplastic, but pathologists were unsure as to the cell of origin of the neoplasm. The cow was negative for TSE.

For more information, contact Ted Irwin, DV North West LHPA, on (02) 6729 1528.

Darling pea poisoning in goats

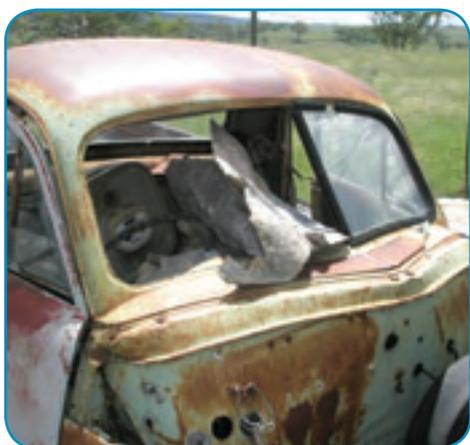
Three backyard goats were examined on a property near Inverell. All were showing varying degrees of neurological signs, from subtle ataxia and head tilt to recumbency with nystagmus and head tremor. A wide-based stance with caudal limb ataxia was also a significant clinical sign observed. The goats were grazing a sparsely pastured small paddock and there was access to various garden plants and shrubs. Darling pea (*Swainsona* sp.) was evident outside the boundary fence but not inside the paddock. An old rusted utility vehicle was present, with sheets of lead poking out the front over the bonnet.

Possible causes included swainsonine poisoning, polioencephalomalacia (PEM), lead poisoning, Coonabarabran staggers (*Tribulus* staggers), and

chronic organophosphate poisoning. Blood tests ruled out lead poisoning and there was no evidence of a causative agent for PEM. A revisit after rain to the paddock revealed abundant growth of Darling pea that was being heavily grazed by the goats. There was no evidence of *Tribulus* sp. in the pasture. A provisional diagnosis of swainsonine poisoning was made and the worst affected goat was euthanased for autopsy. There were no detectable lesions suggestive of Darling pea poisoning, However, in the absence of another possible cause, a diagnosis of swainsonine toxicity remains the most likely.



Darling pea toxicity was the likely cause of neurological signs in goats. Photo: Ted Irwin



Blood tests for lead were negative, despite easy access to lead sheets in this old vehicle. Photo: Ted Irwin

Swine flu update

I&I NSW has continued with a number of surveillance activities on the first NSW herd diagnosed with swine flu in July last year. It is believed farm workers with flu were the source of infection.

Results of a longitudinal study conducted soon after the outbreak suggested that virus was continuing to circulate in the weaner pigs. However, a small sample of swabs collected later last year suggested that virus circulation has stopped.

We returned to the farm in mid March and swabbed weaners for H1N1 PCR and bled growers and finishers looking for antibodies. All swabs were PCR negative for Influenza A virus. We are still awaiting serology results. There were also two boars introduced since the diagnosis of H1N1, one of which became sick. PCR testing was negative, but again we await serological results.

For more information contact Trish Harvey-Holyoake, Technical Specialist Pigs, I&I NSW Wagga Wagga, on (02) 6938 1993.

Scabby mouth in Dorper rams

During a routine testing procedure near Narrabri in late January 2010, a mixed-age group of 45 Dorper rams were presented. The rams, aged 4 to 6 months, exhibited skin lesions around the mouth, on the back of the head and along the neck. Rams aged 12 months were unaffected.

Around the mouth, the skin lesions included crusting scabs that bled easily when knocked. Many rams had crusting around the poll and in the creases behind the ears. A couple of rams also exhibited small, raised, scabby bumps along the lateral and ventral neck.

Differential diagnosis included scabby mouth and dermatophilosis. Culture of scab samples revealed a profuse growth of *Staphylococcus aureus*, which was considered to be either a contaminant or secondary infection. Examination via electron microscopy negative stain demonstrated the virus that causes scabby mouth.

Scabby mouth was diagnosed on the property a number of years before this outbreak. The rams had been grazing dry stubble under drought conditions before approximately 200 millimetres of rain in late December and early January. Mouth lesions resulting from grazing the stubble may have precipitated the outbreak.



Scabby mouth. Photo: Toni Jericho

For further information, contact Toni Jericho, Livestock Health Ranger, North West LHPA, or Libby Read, DV, North West LHPA, on (02) 6792 2533.

Bovine ephemeral fever in young calves

Bovine ephemeral fever was diagnosed via the viral RNA real-time PCR test in calves as young as 5 months of age during the early 2010 ephemeral fever epidemic in the North West LHPA.

A number of suspected cases of ephemeral fever in calves less than 9 months of age were reported to the District Veterinarian during the epidemic.

In one case that was examined, PCR testing confirmed ephemeral fever in a freshly weaned mob of Charolais x Angus calves that were exhibiting sudden onset of lameness and recumbency. All calves were aged 6 to 9 months. Tested calves were serologically negative for sporadic bovine encephalomyelitis, the major differential diagnosis for this clinical picture in the region.

In another case that was examined, a 5-month-old weaned calf showing classical ephemeral fever signs of lameness, depression, drooling and fever tested positive to the PCR test.

In other cases reported by producers, affected calves showed classical signs and generally recovered within 2 or 3 days.

These cases were surprising in that many veterinarians are led to believe by standard veterinary literature that clinical ephemeral fever does not occur in calves less than 3 to 6 months of age. Real-time PCR has proven very useful in confirming the presence of the virus in young calves showing classical clinical signs.



Bovine ephemeral fever in a calf. Photo: Libby Read

For further information, contact Libby Read, DV, North West LHPA, on (02) 6792 2533.

Getting Information on Animal Diseases

This surveillance report can convey only a very limited amount of information about the occurrence and distribution of livestock diseases in New South Wales. If you would like more specific information about diseases occurring in your part of the State, contact your local Livestock Health and Pest Authorities District Veterinarian or Departmental Regional Veterinary Officer.

For Statewide information, contact I&I NSW Animal and Plant Biosecurity Branch in Orange on (02) 6391 3237 or fax (02) 6361 9976.

For more information on national disease status, check the National Animal Health Information System (NAHIS) via the internet at:
<http://www.animalhealthaustralia.com.au/status/nahis.cfm>

This is a report under the Animal Disease Surveillance Operational Plan, Project 3.1, 'Reporting for Animal Disease Status in NSW'.

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Copies of NSW Animal Health Surveillance reports are available on the internet at:
<http://www.dpi.nsw.gov.au/newsletters/animal-health-surveillance>

Disclaimer

The information contained in this publication is based on knowledge and understanding at the time of writing (April 2010). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up-to-date and to check the currency of the information with the appropriate officer of Industry & Investment NSW or the user's independent adviser.

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LIVESTOCK HEALTH AND PEST AUTHORITIES

LHPA

Safeguarding Agriculture in NSW