NEW SOUTH WALES

ANIMAL HEALTH SURVEILLANCE

January-March 2004 • Number 2004/1

STAFF NEWS

Samantha Yorke

joined NSW Agriculture in March to take up the position of veterinary officer at Dareton. Samantha has previously worked in mixed animal practice for a number of years. Samantha has subsequently been involved in a number of difficult cases and is enjoying the challenge and variety of work in the western division.

Bronwyn Hendry

commenced as veterinary officer at Orange at the end of March. Bronwyn is assistant to the Chief Veterinary Officer and also works with the Animal Health Committee. Her other duties include: being the ministerial contact person; Quality Assurance communications person and co-ordinator of the sheep, goat and alpaca Market Assurance Programs. Bronwyn was previously NSW Agriculture's veterinary officer at Bourke and has also worked in mixed animal practice.

In this issue!

NSW Agriculture

QUARTERLY HIGHLIGHTS

Anthrax

Three positive anthrax investigations were reported during the quarter. All three involved beef cattle with the three properties located in the known anthrax endemic area. The first incident occurred in the Hillston district in late January. This involved three out of 60 steers that were found dead in a barley stubble paddock. Two sheep from the same paddock were subsequently found dead, presumably also to anthrax.

The second incident occurred in the Condobolin district, also in late January, and involved the death of one out of 17 cows. The third incident occurred in the Forbes district in early February, and resulted in the death of 10 out of 92 adult cows. The 11th-affected cow (named 'Faith'!) was treated and survived.

All three properties were placed in quarantine; affected carcases were burnt and/or buried; and all in-contact animals were vaccinated for anthrax.

Eighteen other investigations during the quarter excluded anthrax as the cause of death in stock. Eleven of these cases were in beef cattle. Alternate diagnoses for two of the investigations included green cestrum (*Cestrum parqui*) toxicity and lead poisoning. Six investigations were carried out in sheep, with the one remaining in pigs. No alternative diagnoses were determined for these cases.

For more information contact Barbara Moloney, Orange, on (02) 6391 3687.

Hendra virus exclusion

In January, two ponies on agistment near Newcastle showed respiratory distress. Another pony on the same paddock had died one month previously. Samples were taken from the most severely-affected animal which was subsequently euthanased. Virus isolation on tracheal washing samples from the latter animal was negative for Hendra virus.

Investigation of the agistment paddock, however, revealed significant Crofton weed infestation. Clinical and post-mortem signs in these horses were also consistent with Crofton weed toxicity. The third affected pony was removed from the infested paddock.

Strangles

There was a run of seven strangles confirmations in late January–early February. None of these cases were from properties that were likely to export horses.
A further three cases were reported in March.

For more information contact Rod Hoare, Menangle, on (02) 4640 6308.

Porcine myocarditis

Porcine myocarditis (PMC) is a newly-reported disease causing stillbirths, mortality and general malaise in pre-weaning piglets. Initially, PMC causes significant (up to 50 per cent) losses due to a combination of stillbirths and pre-weaning mortalities. Production indices at the affected piggeries, however, are now near-normal, presumably due to the development of herd immunity to the causative agent.

Australian Pork Limited (APL) has funded NSW Agriculture and the Australian Animal Health Laboratory (AAHL) to conduct further research in isolating a possible cause and to see if isolated viruses can reproduce the disease.

For more information contact Rob Walker, SFVO Wagga, on (02) 6938 1993.


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PLANT & OTHER POISONINGS

Tribulus terrestris (caltrop) poisoning

There were two cases of poisoning from *Tribulus terrestris* (caltrop or cathead) in sheep flocks in the Wagga Wagga RLPB this quarter. The first case involved merino wethers with clinical signs including weight loss, photosensitisation, jaundice, and death. The second case involved cross-bred lambs with no apparent effect on ewes in the same flock. Clinical signs included photosensitisation, jaundice, depression, dehydration, and weakness.

Treatment in both cases included removal from *Tribulus*-containing paddock, provision of shade/shelter and the feeding of cereal hay. Removal of *Tribulus* from the paddock will also be attempted.

For more information contact Sarah Robson, Veterinary Officer Wagga Wagga on (02) 6938 1967.

Toxicity from *Panicum effusum* (hairy panic) in sheep

Panic grass intoxication is rare in the Central Tablelands. However, recent good summer rainfall in the Cowra district, has allowed hairy panic to increase in dominance. On one property, 25 out of 280 six-month-old weaners died, with a further 70 clinical cases as a result of hairy panic toxicity. The poisonings occurred within four days of introduction of the sheep to the infested paddock.

Clinical signs of the poisoning included jaundice and severe photosensitisation. All sheep were removed from the panic-dominant paddock with affected animals treated with antibiotics and protected from sunlight (these sheep were kept under the shearing shed during the day and put-out to graze at night). Post-mortem examination revealed hepatopathy and jaundice with histopathology confirming a crystal-associated hepatopathy.

***Panicum effusum* (hairy panic)**

Panic grass is a summer-growing species which dies-off with the first frost. Therefore, panic grass toxicity is more common in the north of the State where there is good summer rainfall. Toxicity is seen mainly in young sheep, occasionally in older sheep, and is unknown in cattle. In this case, the six-month-old weaners were affected along with only one or two 12-month-old sheep. Cattle subsequently grazed the panic-dominant paddock without any problems.

For more information contact John Evers, District Veterinarian (Young), on (02) 6382 1255.

Monensin Toxicity in cattle

There were two instances of monensin toxicity reported during the quarter in cattle with both involving the use of anti-bloat capsules. Signs of toxicity included inappetence, lethargy, scouring, and death. On investigation, it was found that the gel contents of the capsules can melt when subjected to high temperatures leading to rapid release of monensin in the rumen. Therefore, if using monensin-containing anti-bloat capsules on a hot day, the capsules should be kept cool until application.

For more information contact Berwyn Squire, District Veterinarian (Molong) RLPB, on (02) 6366 8505.

Mycotoxicosis

A private practitioner in the Hume RLPB district undertook a revealing mortality investigation this quarter. Beef cattle were fed barley which had been grown hydroponically in trays. Some of the cattle started to stagger with a hypermetric gait. This progressed to recumbency and to death in one cow. The fungus, *Aspergillus clavatus*, was found to be present on the sprouting barley seed. This fungus can be responsible for muscle tremors and other tremogenic signs in cattle with deaths previously reported from this condition.

The significant histopathological finding in this case was acute neuronal swelling, foamy cytoplasmic vacuolation, and occasional neuronal necrosis in the brain stem and spinal cord. This finding is consistent with the condition, 'mouldy feed neuropathy', which is caused by *Aspergillus clavatus*.

For more information contact Rob Walker, Senior Field Veterinary Officer (Wagga), on (02) 6938 1993.

Phalaris toxicity in cattle

Twenty-nine out of 60 Friesian heifers recently died following exposure to fresh pasture growth of a pure phalaris stand on a property at Cassilis. This occurred after a dry period followed by 35 mm of rain resulting in rapid regrowth of the pasture in late January. Nearly half of the cattle herd then died within a 2-3 day period of exposure to the toxic pasture. Post-mortem examination of tissues from affected animals showed cerebral grey matter changes consistent with phalaris polioencephalomalacia-like sudden death.

For more information contact Chris Bourke, Orange, on (02) 6391 3867.

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Photo 1: *Tribulus terrestris* post grazing.
Photo 2: Lamb with photosensitisation. Notice swelling and erythema of the ears with serous exudate. The eyelids are swollen, there is ocular discharge, and the lamb exhibits blepharospasm.
Photo 3: Submandibular oedema. Notice jaundice.

POULTRY

Infectious laryngotracheitis

A broiler flock in the Cumberland area was confirmed with infectious laryngotracheitis (ILT) in January. The birds were approximately 30 days old and, following vaccination against the disease, mortality dropped. This farm has had several episodes of ILT in the last few years. DNA fingerprinting indicated that the virus involved in the outbreak did not originate from a vaccine although it was similar to the vaccine virus.

Chlamydiosis

A breeder chicken flock diagnosed with chlamydiosis that was reported last quarter remained positive on conjunctival and splenic smears, despite extended high-level treatments with Chlortetracycline and Erythromycin. The flock was due for depopulation with the carcasses sent to rendering.

Four separate cases of human chlamydiosis were also reported to be associated with a pet shop in the Hunter district. Birds in the shop were depopulated and, subsequent to refurbishment and development of a management plan, restocking was allowed.

Heat stress mortalities

Mortality rates of up to 30 per cent were reported during February with this attributed to a combination of an extended heat wave and power failure. This mortality rate was experienced on seven poultry farms in NSW and all in one week. Six of the seven farms were in the same geographical area.

Avian influenza was excluded as the cause following veterinary and laboratory investigations.

A mortality rate of 10 per cent in a breeder flock in the Cumberland area was recently investigated. Peritonitis was the dominant finding but an infectious agent was not found to be associated with this case. ILT, Chlamydiosis and Newcastle Disease were excluded. The cause is suspected to be SDS (Sudden Death Syndrome) that can be induced by exposure to high temperatures. The strain-preferred optimal temperature is 17–19°C.

Egg drop syndrome 76

Two cases of egg drop syndrome 76 (EDS76) were recently notified. One was in a 65-week-old layer flock and the other case involved old breeders with sub-optimal production and significantly high levels of EDS serology. This layer flock experienced an egg drop and increased numbers of eggs with soft shells. Both of the properties are on the NSW Central Coast.

For more information contact George Arzey, Senior Veterinary Officer (Poultry), Menangle, on (02) 4640 6402.

DISEASE CONTROL AND ADVISORY PROGRAMS

Internal parasites of sheep

WormTesting important in droughts: Much of the State has remained dry or in drought with low worm burdens in sheep reflecting this. However, for a variety of reasons, high faecal worm egg counts are occasionally encountered. Therefore, it is still important for producers to get a worm egg count (WormTest) done before drenching in a drought. Remember that visual appraisal of sheep is a notoriously-unreliable predictor of worm burdens.

It is vital to WormTest before drenching in dry years as it is likely that selection for drench resistance is much stronger under these circumstances. This is because there are fewer worms *in refugia* (For more information, see the Agnote on combinations and refugia at www.agric.nsw.gov.au/reader/sheep-internal)

If a drench resistance test has not been done in recent years, it is advisable to carry out a WormTest after drenching sheep (10 days after for short-acting drenches) with a view to checking anthelmintic efficacy.

Macrocyclic lactone (ML) resistance increasing: It is estimated that as many as 30 per cent of farms in the *Haemonchus contortus*-endemic areas of northern NSW have *Haemonchus* that are resistant to the macrocyclic lactone (ML) drenches (from B. Chick, personal communication). One reason for this may be the increased use of MLs to control *Haemonchus* once resistance to closantel became common from the early 1990s. Many farmers, however, have not carried out resistance testing in recent years and so do not have objective information on which to base drench choices. Some may even still have closantel as an option.

ML resistance in *Ostertagia* in southern NSW, although somewhat less prevalent than resistance in *Haemonchus* in the New England, is also becoming more common. About 60 per cent of Western Australian farms have ML resistance in *Ostertagia* (from R.B. Besier, personal communication).

For more information, contact Stephen Love, State Worm Control Coordinator, NSW Agriculture, on (02) 6776 5013.

Bovine Johne's Disease Market Assurance Program

Cattle herds in the MAP for this quarter are as follows;

Cattle MAP herds by enterprise			
Enterprise	**Total Herds**	**Stud**	**Commercial**
Beef	563 (70.5%)	421 (74.8%)	142 (25.2%)
Dairy	207 (25.9%)	122 (58.9%)	85 (41.1%)
Mixed	29 (3.6%)	8 (26.6%)	21 (72.4%)
Total	**799 (100%)**	**551 (69%)**	**248 (31.0%)**

For more information, contact Yuni Yunamu, Veterinary Officer, Goulburn on (02) 4828 6628.

Enzootic Bovine Leukosis

The latest completed BMT round is from November 2003. Out of a total of 1234 dairy herds, 1175 (95.2 per cent) were negative on bulk milk test and 59 (4.8 per cent) were not sampled due to being off-supply.

The EBL status of NSW dairy herds as at the end of March 2003 was:

EBL Status	Number of Dairy Herds
Monitored Free	1226 (99.3%)
Infected	2 (0.2%)
Suspected	1 (0.1%)
Not Assessed	5 (0.4%)
Total	**1234 (100%)**

For more information contact Richard Zelski, Tocal, on (02) 4939 8959.

DISEASE SURVEILLANCE

National Granuloma Submission Program

Seventy-one granulomas have been submitted from nine abattoirs in NSW this year. Nineteen samples were submitted in January with 26 in both February and in March. These samples compare very favourably with the same period for 2003 when 26 granulomas were submitted.

Of the 71 submitted, 37 were diagnosed as 'Actino', five as being 'abscess', 15 as tumours and 14 were from various other causes such as foreign body invasion, lymphatic hyperplasia, normal tissue and ulcers.

No tuberculosis was detected in the samples and no samples have been forwarded to the TB reference laboratory in Western Australia. Export abattoirs at Orange, Mudgee and Forbes remain closed.

For more information contact Keith Newby, Veterinary Officer, Grafton, on (02) 6640 1664.

Apiaries

American foulbrood (AFB)
For the period from January–March 2004, there was a total of 80 AFB incidents reported.

Small Hive Beetle (SHB)
For the period from January–March 2004 there were a total of eight SHB incidents reported.

For more information contact Mick Rankmore, Regulatory Specialist, Apiaries on (02) 6741 8374.

National Transmissible Spongiform Encephalopathy Surveillance Program (NTSEP)

TSE Submissions by Rural Lands Protection Board from 1 January 2004 to 31 March 2004								
SFVO Region	RLPB District	Government		Abattoir		Private		Total
		Cattle	Sheep	Cattle	Sheep	Cattle	Sheep	
DUBBO								
	Dubbo				1			
Region Total		0	0	0	1	0	0	1
GOULBURN								
	Moss Vale	1				1		
Region Total		1	0	0	0	1	0	2
GRAFTON								
	Armidale	4	10				1	
	Northern New England	3	5					
Region Total		7	15	0	0	0	1	23
GUNNEDAH								
	Coonabarabran	1	1					
	Narrabri	1	2					
	Tamworth		1					
	Walgett		3					
Region Total		2	7	0	0	0	0	9
MAITLAND								
	Gloucester	1				1		
	Maitland	2						
Region Total		3	0	0	0	1	0	4
ORANGE								
	Central Tablelands						1	
	Condobolin		1					
	Young		1					
Region Total		0	2	0	0	0	1	3
WAGGA WAGGA								
	Hume		3			4	5	
	Murray					1		
	Riverina	1				1		
	Narrandera	1						
	Wagga Wagga		3					
Region Total		2	6	0	0	6	5	19
Grand Total		**15**	**30**	**0**	**1**	**8**	**7**	**61**

For more information contact Glen Edmunds, Senior Field Veterinary Officer (Gunnedah), on (02) 6741 8393.

Disclaimer

The information contained in this publication is based on knowledge and understanding at the time of writing (March 2004). 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 New South Wales Department of Agriculture or the user's independent adviser

Getting Information on Animal Diseases

This surveillance report can only convey a very limited amount of information about the occurence 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 Rural Lands Protection Board district veterinarian; Department senior field veterinary officer; or Regional Veterinary Laboratory.

For Statewide information, contact NSW Agriculture's Quality Assurance Program 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.aahc.om.au/nahis/

Prepared by:

Barbara Moloney
Technical Specialist, Disease Surveillance and Risk Management
Locked Bag 21, Orange NSW 2800

Phone (02) 6391 3687 or fax (02) 6361 9976
e-mail: barbara. moloney@agric.nsw.gov.au

and

Sarah Robson
Veterinary Officer, Wagga Wagga Agricultural Institute,
Wagga Wagga NSW 2650

Phone (02) 6938 1967 or fax (02) 6938 1995
e-mail: sarah.robson@agric.nsw.gov.au

Copies of NSW Animal Health Surveillance reports are available on the internet at:
http://www.agric.nsw.gov/au/QA/Newsletter

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