



October - December 2002

Number 2002/4

Exotic Disease Incidents

Newcastle Disease

An outbreak of virulent Newcastle Disease was confirmed in a single mixed age layer property in Horsley Park (western Sydney) on Friday 25th October. A drop in egg production with depression, nervous signs and coughing had been observed for several days previously. Prompt reporting by the owner to his private veterinarian and then follow up investigation by NSW Agriculture enabled rapid confirmation of the disease and appropriate control action. All birds on the index property (1IP) were destroyed and buried within 48 hours of diagnosis.

A vaccination program for all commercial poultry flocks was commenced in the restricted area, and then extended to include the entire Sydney basin. All commercial poultry flocks in the Restricted Area were vaccinated by 28th October.

Surveillance of surrounding properties in the restricted area led to detection of a second infected property on 6th November (designated 8IP). One bird was displaying nervous signs. Coughing and nasal discharge was observed in other birds. Virulent Newcastle Disease was confirmed by AAHL. The flock had been vaccinated 10 days earlier, and would have been in the incubation stage at that time. All birds on the second IP were destroyed and buried. Surveillance activities continued into December. No further infected properties were found.

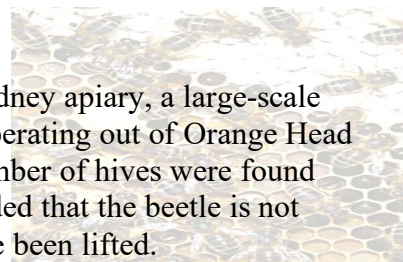
Both IPs implemented cleaning and disinfection plans. Sentinels were placed on 1IP. 8IP has been mothballed and will remain in quarantine for another 4 months.

The compulsory vaccination program in the Sydney basin progressed very well following amendment of the standard vaccination procedures to remove the obligation to use killed vaccine on sero-positive, protected mature hens. All farms are currently on the vaccination register. Some of these are completing the serological profile of their flocks prior to determining their future vaccination programs.

A review of the vaccination program is under way to cater for the expansion of compulsory vaccination of poultry for ND to the whole of NSW. A policy will be released early February.

Small Hive Beetle

Following the detection of Small Hive Beetle in a Sydney apiary, a large-scale surveillance program was managed by an SDCHQ operating out of Orange Head Office and an LDCC at Richmond. A significant number of hives were found infected. The National Management Group has decided that the beetle is not eradicable. All restrictions on quarantined hives have been lifted.



Foot and Mouth Disease Exclusion

Testing on samples air freighted to the Australian Animal Health Laboratory, Geelong from a piggery in the Young RLPB excluded the possibility of the presence of *foot-and-mouth disease*. Clinical signs observed in a mature sow included inappetence, inflammation and swelling of the side of the mouth, shifting hind limb lameness and scabs in the interdigital skin on hind feet. Severe generalised necrotic stomatitis was observed at post mortem. No other animals were affected, although the owner recalled that in mid October a mature sow stopped eating and had a protruded tongue and showed no response to antibiotic treatment.

Quarterly Highlights

Anthrax

Several more lambs died on a property at Rankin Springs where 9 had died from anthrax in September. Again, PCMB stains on smears were positive for *Bacillus anthracis*.

Another case in December occurred on a property near Coonamble. Three out of 1,100 adult sheep died from anthrax following the introduction of grain feeding during drought conditions. There was no known history of anthrax on this property, but significant soil movement may have been associated with dust storms.

Eight cattle found dead at Nyngan were negative for anthrax on PCMB smear. Poisoning due to Rock Fern was a possible alternative diagnosis.

JD In Red Deer

Johne's disease was diagnosed in deer from the central slopes area of NSW. The animals had been in poor condition with diarrhoea since weaning. Gross and microscopic pathology were consistent with Johne's disease. *M avium* subsp *paratuberculosis* was isolated from tissues and typed as Cattle strain.

The two cases were both young red deer stags bred on the property. The owner suspects other cases may have occurred in recent years, but these were initially regarded as "winter death syndrome" and not fully investigated. Like most deer farms in Australia, this property has introduced animals from a number of other deer farms, with a significant risk of direct and indirect introductions from herds in other states with unknown JD status.

Strangles

There were 18 reports of strangles outbreaks in the quarter. One case was in a group of about 60 riding horses, over half were affected. Vaccination had no effect on the prevention of infection. Several cases occurred in racing stables. Most cases occurred in studs and were spread by movements of mares and foals to and from stud farms for the breeding season.

Information was received about an owner taking a horse affected with strangles to an equestrian competition. The disease is notifiable but not quarantinable so no action can be taken on the movement of horses. Nevertheless the Equestrian Federation Code of Welfare precludes such action. Advice was given to the Equestrian Federation and to the NSW Thoroughbred Racing Board on these issues.

Avian Tuberculosis

Mycobacterium avium infection was found to be the cause of ill thrift and mortalities in two small backyard flocks during November. Gross pathology showed emaciation and nodular lesions in multiple organs. Histopathology showed numerous acid-fast bacilli within the granulomatous lesions.

Infectious Laryngotracheitis (ILT)

In mid October ILT was diagnosed on one broiler farm in Sydney and in late October on one broiler farm in the Mangrove Mountain area. Vaccination commenced although vaccine supplies were limited and thus required a very selective approach.

Three more farms (one vaccinated) in the Sydney area, not far from the confirmed case, were suspected but never confirmed. One broiler farm in the Mangrove Mountain area was suspected but not confirmed.

It is now believed that on all the suspect farms a variant Infectious Bronchitis may have been responsible for the clinical signs and gross pathology.

Pica in cattle

District Veterinarian - Moss Vale RLPB investigated an unusual case of pica in cattle in October. The cattle were in good condition but were chewing anything in sight including poly pipe and corrugated iron. The cattle were found to be severely phosphorus deficient. This was an excellent example of the use of surveillance money to investigate unusual cases.

Parasite Resistance in a Goat

Ruby Peterson, SFVO (Goulburn & South Coast) investigated a reported case of drench resistant in 6 goats (5 does and 1 buck), in cooperation with a local veterinarian and Gareth Hutchinson, Veterinary Research Officer (Parasitology), EMAI. The goats originated from Queensland and were drenched three times over a 6 week period with Abamectin, a product not registered for goats. The egg count was 1550 per gram after the second drench and 550 eggs/gm after the third drench. The parasite was identified as *Haemonchus* and the final drench was Closantel resulting in a final egg count of 2 eggs/gm. Unfortunately, the buck was agisted on a property with 1 sheep and 1 calf during this time. These animals will be monitored closely for drench resistance. This case clearly illustrates that ML resistance is truly the sleeping giant for the livestock industry.

Lyssa virus Exclusions

A number of cases involving persons being bitten by bats were investigated for lyssa virus. All results were negative and Public Health Units have been informed. A feral cat which lived near a bat colony was observed to have passive behaviour changes, but then bit a person. Investigations for lyssa virus were negative. Additionally, a dog which had aggressive behaviour changes some 10 days after being seen to eat a bat was euthanased following the owner's concern for rabies. Test results for lyssa virus on the dog were also negative.

Contact: Barbara Moloney, Orange Head Office on (02) 6391 3687

Disease Control and Advisory Programs

Footrot

December 2005 has been set as the target for all Boards to be declared Protected Area status (<1% flock prevalence for footrot). With continued industry support and the challenge of balancing advisory with regulatory components of the Plan, this date would appear to be highly achievable.

As of December 2002 there are approximately 400 properties in quarantine for footrot in New South Wales. All known footrot infected flocks are subject to regulatory activity. Owners are required to agree to an Approved Footrot Eradication Program with set targets being monitored by Rural Lands Protection Boards. Accredited Livestock Contractors are playing an important role in eradication programs on farm. The severe drought in NSW has assisted many footrot programs with owners willing to reduce sheep numbers and destock some infected flocks. Flocks undertaking a soundly based eradication program have been released from quarantine during the drought with plans to monitor when seasonal conditions improve. Increasing emphasis is being given to individual owners protecting themselves by not introducing footrot to clean flocks.

Ovine Brucellosis

At the end of 2002 there were 970 accredited free flocks for ovine brucellosis within NSW. This is an increase over the last 12 months of 59 flocks. The majority of these flocks are new entries into the scheme, though there have also been flocks that had previously fallen over, and re-entered the scheme after completing an eradication program. Many flocks affected by ovine Johne's disease (OJD) are still choosing to remain in the OB accreditation scheme.

Several areas of the state are undertaking targeted surveillance to better determine the prevalence of ovine brucellosis in ram flocks in their region.

Contact: John Seaman, Orange Head Office on (02) 6391 3248

Bovine Johne's disease Market Assurance Program (Cattle MAP)

At the end of the December quarter there were 1,476 herds tested under the CattleMAP in NSW consisting of 165,212 cattle. Of these, 845 herds (74,805 cattle) have had 2 screening tests, 285 herds (15,722 cattle) have had 3 tests, and 15 herds (461 cattle) have had 4 negative tests.

There have been 346 reactors from 206 herds during round 1 testing, 99 reactors from 57 herds during round 2, and 44 reactors from 18 herds during round 3 testing. The overall reactor rate still remains steady at 0.2% of animals tested. Of the 206 round 1 reactor herds, 27 (1.9%) have been detected as infected, 8 herds (0.8%) have been detected as infected at or prior to round 2 testing and 3 herds (1.2%) have been detected as infected at or prior to their 3rd test.

The current number of herds with a status under the Cattle MAP is shown in Table 1.

Table 1: Summary of status of CattleMAP herds in NSW

NSW CattleMAP Status	31 December 2002	30 September 2002	31 December 2001
MN1	264	274	338
MN2	351	361	326
MN3	311	309	299
Total MN1 – MN3	926	944	963
NA (dropped out)	426	395	305
IN (detected by testing in MAP)	38	37	36

Contact: Tim Jessep, Goulburn on (02) 4823 0744

Disease Surveillance

Bovine Tuberculosis

Pre-export tuberculosis testing of a consignment of export cattle detected 2 reactors. These reactors have been examined with, so far, negative results.

Coinciding with the completion of the 4 year Tuberculosis Freedom Assurance Program, December marked the end of full NGSP (National Granuloma Submission Program) in NSW. For approximately the last 10 years, inspectors at abattoirs have been required to submit all granulomas detected to a laboratory. For the last few years, this requirement has only applied to lesions detected in the head and thorax of animals over 2 years of age. The NGSP has demonstrated a low risk of tuberculosis in NSW so that from 2003 only selected granulomas need to be submitted for laboratory investigation.

The new level of abattoir surveillance for TB in NSW from 2003 is known as “Inspector Discretion”. This means that:

1. Inspectors **MUST** submit all granulomas they suspect are caused by TB irrespective of the age of the animal or the site of the lesion.
2. If an Inspector is not confident of the cause of any granuloma found in the head or lungs of cattle with 2 or more permanent teeth, then the granuloma should be submitted to the laboratory.
3. If the inspector is confident of the cause of the granuloma (other than TB) there is no need to submit that granuloma to the laboratory.

Contact: Stephen Ottaway, Grafton on (02) 6640 1687

Enzootic bovine leukosis (EBL)

The EBL Bulk Milk Test (BMT) monitor testing of NSW dairy herds continued with all clear negative results. Final negative herd tests were completed on the remaining 9 EBL quarantined herds and the quarantine restrictions were revoked. Due to excellent co-operation and support from all sectors of the NSW dairy industry the NSW EBL Eradication Program has made highly satisfactory progress and is now in its final stage of monitoring dairy herds for the presence of EBL infection.

During the year the State dairy industry have decided to harmonise NSW EBL Program with a new National Standard Definitions and Rules for Control of EBL in Dairy Cattle. The document has been prepared by the Veterinary Committee of the Primary Industries Standing Committee for Agriculture Resources Management and is incorporating key elements of the Office International des Epizooties requirements for EBL programs.

Table 2 lists EBL status of NSW dairy herds after incorporating guidelines listed in the National Standard Definitions and Rules for Control of EBL in Dairy Cattle, as at the end of December 2002.

Table 2: Status of EBL in NSW Dairy herds

EBL herd status:	December 2002
MONITORED FREE	1336
SUSPECT	2
NOT ASSESSED	1
Total	1339

Contact: Richard Zelski, Tocal on (02) 4939 8959

Cattle Tick

The first infestation of this season was detected at Casino Abattoir on 18 November as a single tick. The herd of origin was examined, and 6 ticks were detected within the herd of 2 head. There are two adjoining herds, consisting of two head and 344 head (91 of which are within a feedlot). Both herds have completed a clean examination.

Drought conditions prevented the start of the spring eradication on two properties and several that started have stopped due to the poor condition of stock.

Contact: Peter McGregor, Wollongbar on (02) 6626 1334

Arbovirus Monitoring - NSW.

During the quarter to end of December, sampling was conducted at all coastal NAMP sites in NSW as scheduled. Most inland sites have also been sampled. Despite the drought in NSW surveillance in NSW should not be greatly affected unless sentinel animals need to be sold off later in the monitoring season. There have been no seroconversions to Akabane, bluetongue or BEF viruses.

Contact: Peter Kirkland, EMAI on (02) 4640 6331

Transmissible Spongiform Encephalopathies (NTSESP)

Unfortunately, NSW was unable to meet the required number of submissions of cattle and sheep brains this year (See Table 3, below). Cattle numbers came very close (93 provided when 100 were required), but sheep numbers were way below requirements (85 out of 153 required). Fortunately other states, principally Victoria, were able to make up the shortfall in sheep, so that the National requirement was still achieved.

Several measures are being undertaken to increase awareness of the NTSESP, and so increase submissions. A series of workshops for vets has commenced, the first of these, held in Wagga in November was very successful, with 25 mostly private vets in

attendance. Future workshops will target regions where submission rates have been lower than expected, for example Dubbo and Orange.

TABLE 3 TSE submissions by RLPB 1/01/2002 to 31/12/2002

BOARD	District Vet		Abattoir Vet		Private Vet		Total	
	Sheep	Cattle	Sheep	Cattle	Sheep	Cattle	Sheep	Cattle
SFVO DUBBO REGION								
BREWARRINA			1				1	
BROKEN HILL	1						1	
DUBBO			6			2	6	2
NYNGAN	1						1	
WILCANNIA	2						2	
Region Total	4	0	7	0	0	2	11	2
SFVO GOULBURN REGION								
BOMBALA	1						1	
COOMA		1			4	1	4	2
GOULBURN					2		2	
MOSS VALE						1		1
SOUTH COAST	2						2	
Region Total	3	1	0	0	6	2	9	3
SFVO GRAFTON REGION								
ARMIDALE	9	10			3		12	10
CASINO		6				1		7
GRAFTON						1		1
KEMPSEY						1		1
NORTHERN NEW ENGLAND	3	7					3	7
TWEED-LISMORE		1						1
Region Total	12	24	0	0	3	3	15	27
SFVO GUNNEDAH REGION								
COONABARABRAN		1						1
COONAMBLE			1				1	
NARRABRI	8	13					8	13
TAMWORTH	4					4	4	4
WALGETT		3	2				2	3
Region Total	12	17	3	0	0	4	15	21
SFVO MAITLAND REGION								
GLOUCESTER		5		1		1		7
MAITLAND		1						1
Region Total	0	6	0	1	0	1	0	8
SFVO ORANGE REGION								
CENTRAL	2						2	
TABLELANDS								
FORBES	1					1	1	1
MOLONG					1		1	
MUDGEES-MERRIWA					1		1	
Region Total	3	0	1	0	1	1	5	1
SFVO WAGGA WAGGA REGION								
HUME	2	2			18	20	20	22
MURRAY			3			4	3	4
NARRANDERA		1						1
RIVERINA	1		3		2	3	6	3
WAGGA WAGGA				1	1		1	1
Region Total	3	3	6	1	21	27	30	31
Grand Total	37	51	17	2	31	40	85	93

Contact: Belinda Walker, Gunnedah on (02) 6741 8363

Getting Information on the Occurrence of Animal Diseases

This surveillance report can only convey 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 Rural Lands Protection Board district veterinarian; Departmental 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 out the National Animal Health Information System (NAHIS) via the the Internet at:

<http://www.aahc.com.au/nahis/>

Prepared by:

Barbara Moloney
Technical Specialist
Disease Surveillance & Risk Management
Locked Bag 21, ORANGE NSW 2800
Phone: (02) 6391 3687 or Fax: (02) 6361 9976
email: 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
email: 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>



NSW Agriculture