NSW Agriculture

NEW SOUTH WALES
ANIMAL HEALTH SURVEILLANCE

January – March 2002

Number: 2002/1

STAFF

Five new veterinary officers commenced at Orange in February. They will undertake four weeks of intensive induction to be followed by four months of competency-based laboratory and field activities.
Chief Veterinary Officer Dick Jane has announced he will retire in July. Dick has spent 11 years with the Department, first as SFVO Goulburn, and then as Program Manager and CVO.
VO Orange, Catherine Taragel will be going on maternity leave from early April.
Technical Specialist, Barbara Moloney has commenced an external Masters degree in Veterinary Studies (Epidemiology) at Massey University in New Zealand.
VO Balranald, Aarn has resigned from the Department.

QUARTERLY HIGHLIGHTS

Cattle Tick

In early January 2002, tick fever due to *Babesia bovis* was diagnosed in a four year old cow that subsequently died. No cattle ticks were detected when all of the 63 head on the property were examined.

The last diagnosis of tick fever in NSW was in 1998 when a single animal died though no cattle ticks were detected on this occasion either. The year prior to this a significant outbreak of tick fever occurred on two adjoining properties. This was an unusual case for NSW in that it was accompanied by a heavy infestation of cattle ticks on both properties. Mortalities were 8 ex 65 and 31 ex 120.

Contact: Peter McGregor, Wollongbar on 02 66261334

Acute Liver Disease in Cattle

Significant morbidity and some mortalities were observed in 7 to 10 month old calves that had been recently moved to an agistment property on the south east of the state. Affected animals showed varying signs including swelling of the head and/or abdomen, restlessness with kicking at the abdomen, elevated temperature, mucoid nasal and oral discharge and photosensitisation. Post-mortem examination showed numerous petechial and ecchymotic haemorrhages throughout the body, swelling of liver and kidneys and subcutaneous oedema. Microscopic changes included severe acute liver necrosis suggestive of plant, algal or fungal hepatotoxin. Further investigation of plant materials is being undertaken. This case appears to have similarities with Acute Bovine Liver Disease (ABLD) which has been recently reported in South Australia, Victoria and Tasmania.

Contact: Barbara Moloney, Orange Tel: 6391 3687

Worm Control

Worm control in sheep has fluctuated with the weather, as one would expect. Many areas of the state have experienced periods of good rainfall with intervening dry periods. Consequently in many localities there have been waves of clinical helminthosis, including haemonchosis, followed by periods of decreased availability of larvae on pasture as dry periods set in.

The anthelmintic resistance situation in sheep/goat worms continues to worsen. NSW Agriculture and other advisers still vigorously promote integrated parasite management, a decreased dependence on

drenching, and avoiding overuse of the macrocyclic lactones (MLs), our last group of highly efficacious broad spectrum anthelmintics.

Recently District Veterinarians in cooperation with NSW Agriculture (ML Resistance Targeted Surveillance Project) have uncovered moxidectin –resistant *Haemonchus contortus* on three farms in northern NSW. Sustainable worm management is still possible on these farms, but only with increased emphasis on non-drench strategies to control internal parasites.

Contact: Stephen Love, Armidale Tel: 6776 5013

Anthrax

There were no positive cases of Anthrax during the quarter. Investigation of mortalities on nine properties (2 ovine, 7 bovine) were negative on PCMB stained smears from peripheral blood and/or internal organs. All properties were within the known anthrax belt in NSW

Contact: Barbara Moloney, Orange Tel: 6391 3687

DISEASE CONTROL & ADVISORY PROGRAMS

Bovine Johne's Disease Market Assurance Program

At the end of the March quarter there were 1417 herds tested under the CattleMAP in NSW consisting of 160388 head of cattle. Of these, 746 herds (67,910 cattle) have had 2 screening tests, and 207 herds (10,910 cattle) have had 3 negative tests. 5 herds (102) cattle have had 4 negative tests.

There have been 336 reactors from 200 herds during round 1 testing, 83 reactors from 49 herds during round 2 testing and 20 reactors from 9 herds during round 3 testing. The reactor rate is steady at 0.2% of animals tested. Of the 200 round 1 reactor herds 27 (1.9%) have been detected as infected, 7 herds have been detected infected at or prior to round 2 testing and 2 (1.3%) have been detected infected at or prior to third round testing. The current number of herds with a status under the Cattle MAP is outlined in table 1.

Table 1. Status of CattleMAP herds in NSW

NSW Cattle MAP Status	Mar 2002	Dec 2001	30th Jun 2001
MN1	294	338	356
MN2	335	326	309
MN3	306	299	281
Total MN1 – MN3	935	963	946
NA (Dropped Out)	352	305	264
Infected (Detected by MAP testing)	36	36	29

Contact: Tim Jessep, Goulburn Tel: (02) 4828 6614

Ovine Johne's Disease Market Assurance Program

At the end of March there were a total of 361 market assured flocks in NSW, representing about 1% of the State's sheep flocks. One hundred and forty-six of these flocks have successfully progressed to Monitored Negative 2 (MN2) status, and four have progressed to MN3 status. One SheepMAP flock was found to be infected during the quarter. Table 2 summarises the SheepMAP situation in NSW.

Table 2. Status of SheepMAP flocks in NSW

NSW Ovine MAP Status	March 2002	Dec 2001	30th Jun 2001
MN1	211	212	248
MN2	146	139	102
MN3	4	3	1

Total Infected (New)	1	2	3
Dropped Out	3	8	12
Total MN1/MN2/MN3	361	354	351

Caprine Johne's Disease Market Assurance Program
The total number of herds in GoatMAP is now 49. Of these, 41 are MN1 and 8 are MN2.

National Transmissible Spongiform Encephalopathy Surveillance Program
Submissions for the first quarter of each year are usually quiet, so it is encouraging to see reasonable numbers in the first quarter of 2002. Thirty eight sheep and 25 cattle are required each quarter to achieve our annual target, so 30 sheep and 21 cattle for what is traditionally the quietest period is actually a pleasing result.
Further promotion of the scheme is planned, with an article being written to submit to the Sheep and Cattle Veterinarians newsletters. It is hoped that with improved communication, we can reduce the number of "no diagnosis" results, and spread the distribution of submissions more evenly across the state.
Tables 3 and 4 show the distribution of submissions across the various RLPB regions and the variety of differential diagnoses.

Table 3. Cattle and sheep submissions by Rural Lands Protection Boards for Jan to March 2002.

	District Vet		Abattoir Vet		Private vet		Total	
BOARD	**Sheep**	**Cattle**	**Sheep**	**Cattle**	**Sheep**	**Cattle**	**Sheep**	**Cattle**
ARMIDALE	7						7	0
BOMBALA	1						1	0
BROKEN HILL	1						1	0
CASINO		3					0	3
CENTRAL TABLELANDS	1						1	0
COOMA					1		1	0
DUBBO			1				1	0
FORBES	1						1	0
HUME		1			2	8	2	9
MAITLAND		1					0	1
MUDGEE-MERRIWA			1				1	0
MURRAY			3				3	0
NARRABRI	4						4	0
NORTHERN NEW ENGLAND	2	3					2	3
RIVERINA						2	0	2
TAMWORTH	1					1	1	1
TWEED-LISMORE		1					0	1
WAGGA WAGGA				1			0	1
WALGETT			2				2	0
WILCANNIA	2						2	0
Total	**20**	**9**	**7**	**1**	**3**	**11**	**30**	**21**

Table 4. Differential Diagnoses obtained during TSE exclusion Jan to March 2002.

Cattle		*Sheep*	
bronchpneumonia (chronic, active)	1	Degenerative myelopathy	2
Congestive heart failure suspected	1	Encephalitis - mild, cause not determined	2
Enterotoxaemia - Leucoencephalomalacia	1	Encephalopathy (possible hepatic origin)	1
Epsodic neurological disorder, cause not	1	Haemoglobinuria, cause not determined	1
determine		hep toxicosis/necrosis, tissue catabol,	1
hypocalcaemia	1	vasculitis	
intestinal haemorrhage, botulism suspected	1	hypocalcaemia	1
ketosis	1	hypocalcaemia, pregnancy toxaemia	1
ketosis suspected	1	suspected	
ketosis, internal parasites	1	Illthrift - jaw deformity	1
Lipofuscin pigment in CNS nerve bodies,	1	metabolic disease	1
CND.		metabolic disease suspected	1
metabolic problem suspected	1	myelin oedema, toxic encephalopathy	1
no diagnosis	4	suspected	
Polioencephalomalacia	1	Myelopathy (degenerative)	2
Recumbency, cause not determined	1	no diagnosis	7
segmental myelopathy	1	Parasitism - haemonchosis	1
Spinal abscess suspected (gross	1	plant poisoning - hepato-toxicosis, 2ary Cu	1
tunicamycin-like toxicity suspected	1	accum	
White matter tract vacuolation	1	plant poisoning - pyrrolizidine alkaloids	1
		probable	
		plant poisoning - pyrrolzidine alkaloid	1
		plant poisoning possible	1
		plant poisoning suspected	1
		Polioencephalomalacia	2
Total	**21**	**Total**	**30**

Contact: Belinda Walker, Acting SFVO Gunnedah Tel: (02) 6742 9263

Enzootic Bovine Leucosis

Table 5. EBL herd statuses at end of March 2002.

Enzootic Bovine Leucosis herd status	March 2002	
Accredited/Certified Free	4	0.3%
Tested Negative	478	35.1%
Monitored Negative	859	63.1%
Provisionally Clear	8	0.5% + 10 beef
Suspect	2	0.1%
Infected	1	0.1%
Under Investigation	1	0.1%
Not Assessed	9	0.7%
Total	**1362**	

There has been little change in the overall picture in EBL, the figures for the program are as provided in table 5. All infected and provisionally clear herds (beef or dairy) are quarantined.

Contact: Richard Zelski, Tocal Tel: 4939 8940

Bee Diseases

Twenty two reports for American Brood Disease (ABD) were received for the period 2nd Jan 2002 to 8th April 2002. This brings the total number of reports from July 2001 to 160 (includes beekeepers with more than one submission in any one month) from 137 individuals.

!5 of the individuals have had positive ABD reports in the last financial year and 40 have never had a recorded history of a positive American Foul Brood (AFB) smear or honey sample. The number of positive AFB honey lab reports during the quarter was 6 bringing the total for the financial year to 26.

Contact: Keith Oliver, Orange Tel: 6391 3689

Ovine Johne's Disease Surveillance

925 infected (IN) flocks have now been identified in NSW since 1980, with 766 (2.4% of the State's flocks) still having an IN status. Of the 766 current known infected flocks, 433 (56.5%) are in the Residual Zone. About 12.8% (433/3388) of flocks in the Residual Zone are known to be infected, compared to <1.0% (275/27391) in the Control Zone, and <4.8% (58/1200) in the Residual/Control Zone. Seventy new infected flocks were reported during the January to March period. Table 6 summarises the current status situation in NSW.

Table 6. Summary of NSW statuses by zone as at March 2002.

ZONE	Flocks*	IN	SU	US	NA	MN1#	MN2#	MN3#	Total
Control	27,391	275	394	1,049	1,213	190	132	3	3,256
Residual	3,388	433	360	1,434	235	21	14	1	2,498
R/C	1,200	58	93	215	126				492
Total	31,979	766	847	2,698	1,574	211	146	4	6,246

* Total flock numbers in Control, Residual and Residual/Control zones are approximate only. Currently Yass is the only RLPB which is zoned part Residual and part Control.

MAP figures are as per the NSW SheepMAP Central Database

IN: Infected; SU: Suspect; US Under Surveillance; NA: Nil Assurance; MN: Monitored Negative;

More information on Johne's Disease in NSW can be found at:
http://www.agric.nsw.gov.au/OA/jd/

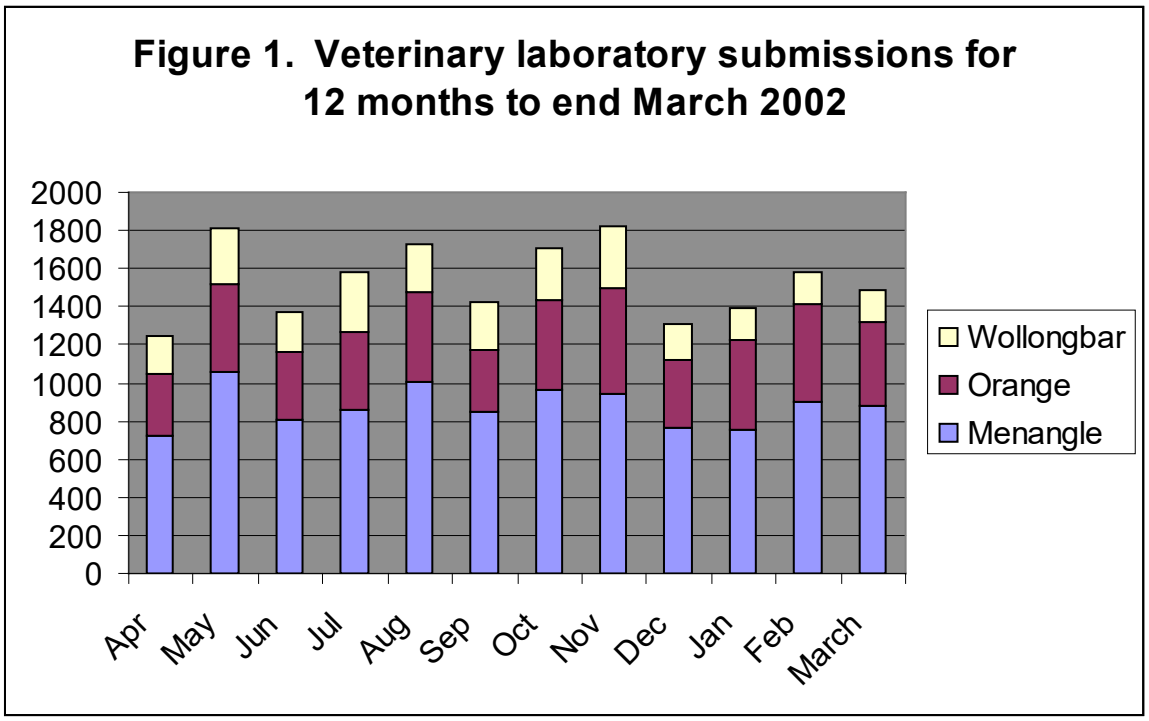
Veterinary Laboratory Submissions

The total number of laboratory submissions to NSW Agriculture Laboratories for veterinary testing for the quarter is summarised in table 7.

Table 7. Veterinary Submissions by Laboratory, Jan-March 2002.

Laboratory	Jan	Feb	March	Lab Total
Menangle	756	900	880	**2536**
Orange	464	511	438	**1413**
Wollongbar	173	172	174	**519**
Month Total	**1393**	**1583**	**1492**	**4468**

Figure 1 shows that submissions rates have gained some lost ground after a sharp downturn at the end of last year.



Contact: Barbara Moloney, Orange Tel: 6391 3687

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/

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