



New South Wales



# ANIMAL HEALTH SURVEILLANCE

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## *January–March 2000*

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Number 2000/1

### **STAFF**

Rory Arthur commenced duties as Program Leader (Health Management) during the quarter. Rory graduated from Qld University in 1977 and joined the QDPI as a Veterinary Officer. By the time he retired from the QDPI in 1991 he was Director of the Veterinary Public Health Branch and had gained experience in residues, implementation of Quality Assurance Programs, TB & Brucellosis eradication and disease surveillance (especially abattoir). From 1992-1997 he worked as a private consultant in Australia and S.E Asia in Quality Management. In 1998 he joined the Commonwealth where he worked with import risk analysis and was the executive officer for Veterinary Committee and CCEAD.

John Seaman commenced duties as Program Leader (Flock Health) during the quarter. John has moved from the position of Officer in Charge (OIC) at the RVL, Orange where he had been since its commencement in 1981 and as OIC from 1989 to January 2000. His position has been filled in an acting capacity by Graham Bailey, who is a Veterinary Research Officer based at the Orange RVL.

Michelle Dries has left the Nyngan RLPB to undertake further veterinary qualifications in Victoria at the Mackinnon Project. Simone Tolson has left the Coonamble RLPB and has moved to private practice in Braidwood. Bill Johnson has left the Goulburn RLPB and has

moved into private practice in Goulburn. We wish all three of the departing District Veterinarians all the best in their new careers.

### **LIVESTOCK AND PASTORAL CONDITIONS**

#### **Seasonal Conditions**

Most of New South Wales received average or above average rainfall with only a small area on the Far North Coast receiving below average falls. Heavier falls occurred on the North-west Slopes and Plains and northern half of the Western Division. Weather conditions have provided excellent autumn conditions for the germination and establishment of pastures and the preparations and sowing of winter crops in all growing areas. Some damage has been reported from summer crop nearing harvest.

#### **Floods**

The heavy rains caused severe local flooding in the Warriga and Bokhara River systems in the area between Barrington, Fords Bridge, Bourke, and Brewarrina to Goodooga, in the Wanaaring and Wilcannia section of the Paroo and Cuttaburra system and in the Mootwingee Topar Menindee area east of Broken Hill. There were major losses of fencing and livestock in some areas. Losses to buildings and infrastructure were not as severe in the Bourke to Brewarrina area compared to the Broken Hill/ Wilcannia situation. The continuing warm humid weather has also presented ideal conditions for Blow Fly strike. Areas flooded in February in the Mootwingee and Paroo areas north of Wilcannia are draining slowly. However, some areas will be flooded for up to six months until the water evaporates.

#### **Plague Locusts**

Widespread hatchings in the north-western areas of the State have occurred following the February

rains. Instar hoppers have banded together and large-scale control programs are underway in the White Cliffs and Tibooburra areas. Some early hatchings are now fledging and it is anticipated that swarm control will begin early in April. Low-density awareness has been reported from central western New South Wales from some early migrations from the North-West.

The situation provides a potentially very serious outlook for spring as many of these low-density swarms separated from the Hay, Goolgowi, Forbes and Eugowra area appear to have laid eggs. In addition, effective control in the North-West has been limited by the proximity of water preventing spray control to be carried out.

### **Mice**

Anecdotal information suggests mouse populations may have leveled off slightly on the back of recent rain and consequent impacts on young mice. However, populations and seasonal conditions are such that mice continue to represent a potential threat to sowing and emergence of winter crops.

## **QUARTERLY HIGHLIGHTS**

### **Newcastle disease**

As reported in the last Animal Health Surveillance, between January and March, 2000, NSW Agriculture and AAHL isolated virulent virus, and/or PCR product with virulent sequence (RRQRRF or variant sequence RRQKRL) from five poultry farms in the western Sydney region and four in the Tamworth-Moonbi area. This is the first isolation of these viruses outside the Sydney and Central Coast areas. One farm was a breeder farm, one was a pullet-rearer, two were broiler farms and five were layer farms.

Morbidity and mortality on the layer and pullet farms was very low. NSW Agriculture did not order depopulation of these farms and they are, now, apparently healthy but remain in quarantine. Eggs are permitted off the farms subject to an approved sanitisation process. The owners of the two infected broiler farms and the breeding farm depopulated voluntarily and thoroughly cleaned and disinfected their sheds before restocking.

The Mangrove Mountain Control Area (mainly a broiler production area) remains in place. Owners in this area are voluntarily vaccinating their flocks

which are under surveillance by company veterinarians. Movement of broilers out of the area for processing is permitted. Movements of other poultry out of the area are permitted subject to health certification.

Interstate movement controls are in place on poultry and product from quarantined farms and any surrounding risk areas.

In March, the Standing Committee on Agriculture and Resource Management (SCARM) decided to permit the wider use of vaccine than was previously allowed. Owners of broiler flocks in the western Sydney and Mangrove Mountain areas are voluntarily vaccinating their flocks using V4 vaccine.

Newcastle disease was not reported from the vaccination area based around Mangrove Mountain, or from poultry areas in other states in Australia. The last farms to show clinical signs were at Rossmore (western Sydney), on 24 February, and at a broiler farm at Moonbi, which was depopulated on 2 March 2000.

The poultry industry has accepted that it needs to assume greater responsibility for ND management. A national ND committee met in May to manage the transition of policy development and operations from government to a shared industry-government management group.

The key features of Australia's Newcastle disease management framework are:

- A senior management group (SMG), comprised of industry chief executives and senior agriculture department chief executives.
- A technical working group (TWG) comprised of industry and government poultry veterinary and laboratory specialists.
- A suspension of the current stamping-out policy pending investigations of virulent virus distribution and the development by the SMG of future strategies to regain ND free status.

### **Anthrax**

During the quarter there were 5 Anthrax submissions of which 4 ( 2 in beef cattle and 2 in horses) were negative. The positive case of Anthrax was reported at Hillston, where 22 ewes of mixed

ages died out of 1900 at risk. Diagnosis was made from the observation of organisms consistent with *Bacillus anthracis* observed in smears of the spleen.  
*Contact: Evan Sergeant, Orange on (02) 6391 3687*

### **Venereal Trichomoniasis of Cattle**

The confirmation of venereal trichomoniasis in a beef herd near Manilla indicates that this long known but rarely confirmed disease should still be considered when investigating bovine infertility and abortion.

This is the first case confirmed by NSW Agriculture's laboratories since 1994, when *Trichomonas foetus* was detected in a beef herd near Warren. The disease is also rarely confirmed in routine submissions from southern Queensland to QDPI's Toowoomba and Yeerongpilly laboratories.

The disease may be under-diagnosed. It was once quite prevalent in south-eastern Australia, and it remains quite prevalent in parts of north America and elsewhere. In northern Australia, targeted surveillance has indicated that up to 66% of bulls are infected.

Trichomonads are so-named because of their hair-like flagellae; *Tritrichomonas spp* have 3 anterior flagellae. Other flagellated protozoa can occur in the vagina and prepuce of cattle, but are distinguished from *T.foetus* by their less vigorous *in-vitro* growth, and their morphology in stained smears. *Tetratrichomonas spp* have 4 anterior flagellae.

The In-Pouch® culture system, which NSW Agriculture's laboratories use, has improved detection of *T.foetus* worldwide. For best results, it must be inoculated in the field, usually with preputal scrapings or washings. However, in the Manilla case, *T.foetus* was cultured from one (only) of 10 aspirates of vaginal mucus.

Trichomoniasis is a notifiable disease, so NSW Agriculture supplies and tests In-Pouch® media at no cost, where the disease can reasonably be suspected. For other causes of infertility and abortion NSW Agriculture will test up to 10 bloods and mucus for brucellosis, campylobacteriosis, leptospirosis and exposure to pestivirus without charge to submitter. All tests done on aborted foetuses are free.

*Contact: Paul Gill, Wollongbar, (02) 66261298*

### **Strangles**

During March, there were eight notifications of strangles infection in horses. Most of these were from one large stud that is run in two separate locations. On this stud, infections have occurred in weanlings and some mares. All horses had been vaccinated for the disease. The infected groups are being held in isolation and handled by separate staff.

*Contact: Rod Hoare, EMAI, (02) 46406308*

### **Fish Diseases highlighted**

During the quarter there were various diseases diagnosed in fish. Free living sea bass had dermal ulceration due to *Lernea* sp. infestation at Ballina, *Ichthyophthirius* spp was responsible for branchitis observed in rainbow trout at Albury, and *Lactococcus gaviae* (syn *Enterococcus seriolicida*) septicaemia caused an appreciable mortality amongst rainbow trout at Tumut. Also at Tumut, Epizootic haematopoietic necrosis virus infection caused a 1% mortality rate amongst 20,000 fingerlings.

### **Pigs – remember the exotics**

Viral myocarditis (EMC virus) killed 10% (4/40) of 4 week-old Large White piglets at Fairy Hill. EMC virus infection was confirmed by virus isolation, thereby excluding the possibility that the disease was caused by FMD virus.

## **DISEASE TRENDS AND PREDICTIONS**

### **Mice – when they aren't so nice**

With the increase in mice numbers across the state and the likelihood of high mouse numbers this spring it is important to remember that mice and rats are reservoirs of many diseases and to keep them in mind when investigating diseases. Diseases mice and rats have been implicated in include Leptospirosis, Lyme disease, Melioidosis, Salmonellosis, Ringworm, Ross River Virus, Murine typhus, Scrub typhus, Angiostrongyliasis, Toxoplasmosis and Pneumocytosis. They also may carry the potential zoonoses *Capillaria hepatica* Encephalomyocarditis virus (EMC) and Lymphocytic choriomeningitis virus.

Mice and rats also hold the threat of exotic diseases and parasites. Most rat or mouse related exotics are arthropod borne viruses with the exclusion of *Trypanosoma cruzi* (Chagas' disease), rabies,

Trichinellosis and the Bubonic plague which is still prevalent in parts of Africa and Asia.

Contact: Suzanne Balogh, Orange on (02) 6391 3804

### **Barber's Pole – the comeback kid**

Internal parasites have continued to be a major problem through out the Western Division and much of the state. During January and February, the relatively dry conditions slowed down *Haemonchus contortus*, but with the favourable seasonal conditions over March and into April there have been a number of severe losses due to barber's pole in young sheep and also reports of mature sheep, particularly pregnant ewes, showing signs of high burdens of worms. A new Closantel Resistance Test has been developed by NSW Agriculture to aid in the diagnosis of *H. contortus* resistance to closantel, which for some areas of the state may be a problem in up to 50% of flocks.

Contact: Steve Love, Armidale on (02) 6776 5000

## **DISEASE CONTROL AND ADVISORY PROGRAMS**

### **OJD in the year 2000**

At the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) meeting in early March, the State and Commonwealth Ministers of Agriculture reaffirmed their commitment to the National Ovine Johne's Disease Control and Evaluation Program. The ministers were informed in a progress report that the NOJDP was largely on track and its desired outcomes could be achieved. The report noted that key research projects are underway with abattoir surveillance to focus on low prevalence regions over the next 12 months. It also noted that most producers continue to support disease control and the assessment of eradication feasibility.

The Ministers agreed that the national Veterinary Committee, in consultation with industry, should continue with the 'risk-based' approach to classification of affected producers. This would provide more trading options and help resolve current uncertainty and delays experienced by some producers.

Approval has also been given by the Chief Veterinary Officer of New South Wales for the use of the vaccine on properties in Residual Zones

outside of the three properties involved in the intensive research trials. This extended usage is subject to strict conditions that have been developed in consultation with the sheep industry in the high-prevalence areas.

By mid-March 2000, more than 16,000 doses had been supplied to 29 producers suffering a significant level of mortalities (28 located on the Central Tablelands and one in Goulburn RLPB).

Contact: Ian Links, Wagga Wagga on (02) 6938 1992

### **National Organochlorine Residue Management (NORM) Program**

During 1999 only one property in NSW had an abattoir Organochlorine test result that exceeded the applicable Australian MRL. This was a Heptachlor Epoxide residue at 0.21 mg/kg (MRL 0.20). The producer is rearing a few calves, and the residue source is thought to be soil contamination resulting from termite control treatments carried out by a previous owner of the property.

The annual "M" Testing program in September and October of 1999 tested 358 abattoir samples from NSW properties. These properties were targeted on the basis that they did not have any OC test results on record, and they were located in areas considered to be at a greater risk of OC residues. The over MRL Heptachlor residue mentioned above was the only "M" Test result requiring follow up investigation by a District Veterinarian.

During the year a further 13 properties required investigation following the detection of OC residues in the ½ - MRL range. Nine of these were from T-Listed properties indicating that residue management procedures in place needed further refinement. Three new OC residue-affected properties were identified by the Endosulfan testing program, and one resulted from abattoir QA testing. There was also a QA result above 1.0 mg/kg for Total DDT that required investigation.

Sources of these residues were past OC use on broadacre crops (4), past termite treatments (4), old sheep dip sites (2), old orchard areas (2) and two have yet to be resolved.

Abattoir test result statistics for 1999 supplied by NRS indicate that there were 6590 NSW samples tested for OCs. In addition to the one above MRL

result, there were 12 with residues greater than ½ MRL and up to MRL. This equates to an Australian MRL compliance rate of 99.98%.

At the end of 1999 there were 170 NSW tailtags listed on the ERP database for abattoir monitoring - 39 at T1, 33 at T2, 97 at T3, and 1 at T4. This compares with 206 T-listed tailtags at the beginning of the year.

The number of NORM program property audits completed in NSW during the year was below expectations, due largely to involvement of District Veterinarians in other programs such as Exotic Disease eradication, and Johnes Disease management.

*Contact: Graeme Williamson, Wollongbar on (02) 6626 1370*

### **Quality Assurance in Cattle**

The cattle industry on-farm Quality Assurance scheme CATTLECARE now has more than 1,050 accredited properties in New South Wales. These properties run more than 550,000 head, or 11 per cent, of the State's beef cattle herd. This is a 300 per cent increase in accredited properties since March 1999.

### **Bovine Johne's Disease Market Assurance Program**

At 31 March there were 1108 herds which had been tested under the CattleMAP within NSW, consisting of 133,283 head of cattle. Of these, 354 herds (38573 head) have had 2 screening tests. The percentage of herds tested with reactors remains steady at around 20% (209) where there have been 180 herds with reactors in round 1 testing and 29 herds with reactors in round 2 testing. The number of herds diagnosed as infected during MAP testing is currently 20 (1.4%), with 18 detected at round 1 testing and 2 detected at round 2 testing.

There are currently 892 herds with a MAP status in NSW consisting of 69 TN1, 366 MN1, 37 TN2, 273 MN2, 91 MN3 and 110 which have reverted back to a status of non-assessed (NA).

*Contact: Tim Jessep, Goulburn on (02) 4828 6614*

### **Australian Sheep Johne's Disease Market Assurance Program**

During the quarter the new SheepMAP was launched in line with the new CattleMAP and

refresher meetings were held for approved veterinarians across the State. The new program is more flexible as it allows flocks to maintain status by less intensive testing and permits introduction of stock from a lower status under certain conditions. The new SheepMAP is in a quality manual format and is hoped to assist owners and veterinarians in implementing the program and auditors in auditing the program.

The revised SheepMAP also includes Pooled Faecal Culture which will substantially reduce the cost of testing and improved standards for shows and sales, including a standard audit process for venues.

At the end of the quarter there were a total of 313 flocks enrolled in the SheepMAP, 306 with a status of MN1 and 7 with a status of MN2. There were 7 new flocks entering the scheme and 3 flocks that reverted to a non-assessed (NA) status. Currently all the MN2 flocks are located in the Control zone and there are 248 flocks (81%) of the MN1 flocks located in the Control zone and 58 (19%) in the Residual Zone.

*Contact: Catherine Taragel, Orange on (02) 6391 3924*

### **Australian Goat Johne's Disease Market Assurance Program**

During the quarter there were 13 new herds entering the GoatMAP. This brings the total NSW herd numbers in the GoatMAP to 19. The herds in the scheme are predominantly fibre (Angora or Cashmere), meat (Boer) or meat/fibre crosses and there is one dairy herd.

*Contact: Catherine Taragel, Orange on (02) 6391 3924*

### **Australian Alpaca Johne's Disease Market Assurance Program**

There are now 1870 animals from 63 herds that have entered the program. Of the 63 herds 58 are MN1 and 6 herds have progressed to MN2.

*Contact: Bob Coverdale, Dubbo on (02) 68811275*

### **Ovine Brucellosis**

The revised and updated NSW Ovine Brucellosis Accreditation Scheme, Veterinarian's Guidelines (3<sup>rd</sup> edition) were released during the quarter. Copies of these guidelines were sent to breed societies, District Veterinarians and all approved veterinarians who wished to continue under the Scheme. During the quarter there were 9 new flocks

entering the scheme and 6 flocks (4 voluntary) which were cancelled from the scheme.

A total of 1,986 rams were tested in 112 submissions using the *Brucella ovis* CFT. There were no positive samples for accreditation purposes and there were 7 positive submissions for diagnostic and monitoring testing.

Contact: Catherine Taragel, Orange on (02) 6391 3924

### New South Wales Footrot Strategic Plan

During the quarter legislation was passed making footrot in sheep and goats a notifiable disease throughout all areas of NSW, including Residual areas. The Footrot Steering Committee is confident that NSW is still on target for all Rural Lands Protection Boards achieving Control or Protected status by December 31 2000 and has recommended that December 2005 be the target for all of New South Wales to reach Protected Area status for footrot.

During March the majority of the Murray RLPB was progressed to Protected area status while the former Residual area within the Murray board was progressed to Control status. As of 31 March there were 399 flocks in quarantine for footrot in NSW with 60 flocks being released from quarantine in the previous 6 months.

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

### Cattle Tick Control Program

All herds in the Cattle Tick Protected Area have completed their first inspection & the 2nd round of inspections is well under way. By mid April 52 infestations had been detected by the following means:-

property inspections	26
saleyards inspections	5
abattoir inspections	2
owner reports	5
adjoining holding inspections	14

Of these infestations 40% were associated with those detected in the last two years.

On 8 April an infestation was detected in South Grafton. This is the first infestation detected in the Grafton area for seven years.

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

### Enzootic Bovine Leucosis

Since the commencement of the NSW EBL Eradication Program, the number of EBL infected dairies in the State have been reduced from over 600 in 1993 to 29 in April 2000 with only 4 active infected herds detected at the November 1999 BMT testing round. Laboratory testing of BMT samples collected in March 2000 were not completed at the time of this report (95% herds completed, one BMT positive).

The NSW Dairy Industry set a goal in 1993 of being declared EBL free by the end of 2000. To achieve the target there is a need to meet the international standard of 99.8% of all dairy herds being EBL free, ie. no more than three herds (total at present 1708) can have a herd status which is either *Infected*, *Provisionally Clear*, *BMT Negative* or *Under Investigation* and all the other herds must be either *Accredited* or *Certified Free*, *Tested Negative* or *Monitored Negative*.

The following table 1 indicates that at the end of March 2000, 1541 dairy herds or 90.2% of the State dairy herds have attained the goal of EBL freedom.

**Table 1: The EBL status of the state dairy herds, as the end of March 2000:**

Accredited & Certified Free	4	(00.2%)
Tested Negative	507	(29.7%)
Monitored Negative	1030	(60.3%)
BMT Negative	46	(02.7%)
Provisionally Clear	79	(04.6%)
Infected (Inc. 2 heifer rearers)	29	(01.7%)
Not Assessed	13	(00.8%)
Total	1708	(100%)

Provided no breakdowns occur in existing EBL free herds, to attain tested negative status, the

- 29 *Infected* herds require two negative whole herd tests, six months apart
- 79 *Provisionally Clear* and 46 *BMT Negative* herds require one clean whole herd test
- 13 *Not Assessed* herds require two negative whole herd tests, six months apart or if accumulate 4 negative BMTs one clean whole herd test

It is unfortunate that some of the *Infected* herds can not meet the target of being EBL free by the end of

the year 2000 and the mid of the year 2001 is more realistic target date for the herds to achieve the *Tested Negative* status.

Since 01 July 1999 the remaining EBL infected dairy herds are quarantined and any dairy supplying milk contaminated with EBL virus is subjected to a penalty price of 4 cents per litre. There were 6 dairy herds that were for various lengths of time (from 1 to 19 weeks) subjected to the penalty.

The grant from the Cattle Compensation Fund (CCF) to support the EBL Program is largely exhausted. From the beginning of the year 2000 the CCF subsidised EBL testing is available only to the current *Provisionally Clear* herds and to *Infected* herds which were EBL infected before 31st December 1999. The CCF test subsidies are limited to the number of animals tested at the last herd test before 1st December 1999. No EBL testing subsidy will be paid to any herd owner after 31st July 2000 or earlier if funds are insufficient.

Contact: Richard Zelski, Maitland on (02) 4930 2419

## DISEASE SURVEILLANCE

### National Transmissible Spongiform Encephalopathy surveillance Program (NTSESP)

During the quarter there were 32 TSE submissions to the laboratory, including 17 bovine and 15 ovine brains. During the period more cases have been reported, however the others were submitted to the laboratory prior to the 1<sup>st</sup> January 2000.

The submissions represent 17% of the numbers required for NSW for cattle brains for the year and for sheep 9.8% of the yearly target. Pro rata we need 25 cattle brains and 38 sheep brains per quarter to enable NSW to reach its requirements under the NTSEP.

In the same quarter 53 cases were reported to the Commonwealth - 30 cattle and 24 sheep - so we were ahead in the cattle and not the sheep requirements - in that period the event dates ranged from 17/05/99 to 31/01/00. There are delays between submission and commonwealth notification due to a variety of problems - the longest occurring when cases are referred to AAHL.

Diagnoses of animals submitted included haemonchosis, PEM and pneumonia (sheep) and mucosal disease, displaced abomasum and chronic broncopneumonia (cattle).

The following tables outline the TSE Submissions from 1 January to 31 March 2000 by submitter type (Table 2).

**Table 2. Submissions by Submitter type**

Submitter	Species		Grand Total
	Bovine	Ovine	
Abattoir		2	2
DV	6	10	16
Private Practitioner	11	3	14
Grand Total	17	15	32

Contact: Steve Dunn, Gunnedah on (02) 6742 9293

### Bee Diseases

During the quarter there were 28 positive reports from smear samples, 54 positive honey reports and 146 negative reports for American Brood Disease. This brings a total of 116 infections detected by smear reports since July 1999, of which 44 individuals had positive reports during the last financial year.

#### Surveillance Program

Four queen bees with escorts were supplied to the Australian Quarantine and Inspection Service dog handlers for their active dog program in the surveillance of incoming mail and packages for illegal imports of bees. Six queen bees imported from France during the month are being held at the Eastern Creek Quarantine Station. Laboratory testing of package bees was undertaken from 38 apiaries during the quarter prior to export to Japan and South Korea. Samples from one apiary were found to contain spores of *Nosema apis*.

Contact: Keith Oliver, Orange on (02) 6391 3689

### Ovine Johne's Disease Surveillance

By the end of the quarter 512 infected flocks have been identified within NSW since 1980, with 451 (1.5% of the State's sheep flock) still having an infected (IN) status. Of the 451 currently known infected flocks, 339 (73%) are located in the Residual Zone for OJD. About 6% of total flocks in the Residual Zone are known to be infected compared to <0.5% of total flocks in the Control Zone. There have been 20 new infected flocks

reported during the quarter. Table 3 summarises the current status situation in NSW.

A total of 153 Property Disease Eradication Plans (PDEPs) have now been approved by NSW Agriculture and during the quarter 9 PDEPs were completed bringing the total of finalised PDEPs to 51.

Braidwood Rural Lands Protection Board district progressed from Residual to Control Zone during the quarter.

**Table 3: Summary of current status by Zone**

	Flocks*	Current Status				Total
		IN	SU	NA	US	
Control	26008	112	229	725	457	1768
Residual	4488	339	334	327	883	1958
<b>TOTAL</b>	<b>30496</b>	<b>451</b>	<b>563</b>	<b>1052</b>	<b>1330</b>	<b>3726</b>

\* Total flock numbers in Control and Residual Zones are approximate only

### OJD Abattoir Surveillance

The release of traceback information on positive and suggestive lines detected by abattoir surveillance began on 17/4/00, following 2 weeks of intensive publicity. A policy circular has been issued detailing procedures for both trace assessment and on-farm investigation/status allocation.

By 31 March 2000, 3000 lines (985 000 sheep) had been examined and 592 lines had been sampled, with 220 lines returning positive results (including 30 lines from known infected properties submitted under the abattoir sensitivity research trial). The results to 31 March 2000 are summarised in Table 4.

Field tracing to verify the properties of origin has commenced and is confirming that a significant proportion of positive lines trace back to known infected properties/neighbours.

**Table 4: Summary of abattoir surveillance to 31 March 2000**

Apparent Source	% Lines Monitored	% Positive Lines
Residual Zone	16	61
RZ/CZ	6	8
Control Zone	68	22
Interstate	6	1
Undetermined	4	8

Contact: Maurie Ryan, Orange on (02) 6391 3728

### Bat Viruses

Lyssavirus infection was confirmed in a grey-headed flying fox which had attacked an unvaccinated member of the public at Murwillumbah who suffered minor scratches. Lyssavirus infection was suspected in a juvenile grey headed flying fox from Liverpool. At the Australian Animal Health Laboratory there was a suspicious fluorescent antibody test (FAT) on brain but subsequent FATs, PCRs, histopathology and immunohistochemistry were negative. The animal yielded a titre of 128 against Menangle virus in the virus neutralisation test.

There was no evidence of lyssavirus infection in 2 microbats, one of which had bitten a person at Yamba, the blood of the other had contaminated a person at Moree.

Contact: Evan Sergeant, Orange on (02) 6391 3687

### National Arbovirus Monitoring Program (NAMP)

During this quarter sampling was conducted at all coastal NAMP sites in NSW as scheduled. Most inland sites have also been sampled according to schedule. Results of sampling for viruses have been submitted to the national database.

### Akabane virus

There were Akabane seroconversions on the far North Coast and in the Manning region during January but subsequent spread has been relatively slow. Seroconversions have now been detected in all herds along the coast south to Camden, but to the end of March the incidence of seroconversions had also been relatively low. Although the summer has been quite wet, and followed a mild winter, the cool spring appears to have suppressed vector activity and virus transmission. The mild wet conditions may support transmission late into the season but it is unlikely that there will be 'spill-over' beyond the endemic area due to the slow rate of spread.

### Bluetongue virus

No seroconversions were recorded anywhere in the state.

### Bovine Ephemeral Fever virus



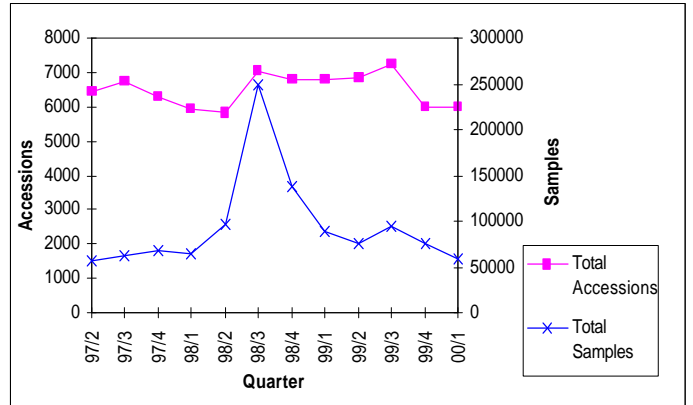
No seroconversions were recorded anywhere in the state during this sampling period. There have been reports of a mild EF-like syndrome on the far north coast but to date there is no serological confirmation (with paired sera available) for BEF virus infection as the cause.

Contact: Peter Kirkland, on (02) 4640 6331

**Laboratory submissions**

The graph below shows the throughput of laboratory submissions and the number of samples processed.

Contact: Evan Sergeant, Orange on (02) 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.brs.gov.au/aphb/aha>**

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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/>**

