NSW Agriculture

NEW SOUTH WALES
ANIMAL HEALTH SURVEILLANCE

January – March 2001

Number 2001/1

Evan Sergeant left employment with NSW Agriculture during the quarter and is now working as a consultant with the AUSVET consulting group. We wish him well with his future career and thank him for the enormous contribution he has made to animal health surveillance within New South Wales. The position of Technical Specialist, Disease Surveillance and Risk Management should be replaced by mid-May.

Steve Dunn, SFVO Gunnedah has returned to East Timor on an aid project and Belinda Walker is acting in his position. Catherine Taragel, VO Orange returned from maternity leave in March and is currently working 3 days.

Anthony Carr commenced employment as DV South Coast during the quarter. Anthony graduated from Queensland Uni in 1983, and initially worked for Inghams for 4 years in poultry production. He then completed a Masters degree in Sheep and Beef cattle production with the McKinnon project, then worked at the DPI in Qld for 4 years where he completed a post-grad certificate in rural science at UNE via a MLA scholarship. Anthony then worked in mixed private practice for approximately 7 years before joining South Coast RLPB.

LIVESTOCK AND PASTORAL CONDITIONS

Seasonal Conditions

The hot conditions of January and February have made this summer one of the hottest on record for most areas of the State. Very heavy rainfalls during February and March have resulted in severe flooding in the north and north east of the State. Elsewhere, light but useful rainfall has assisted autumn pastures and enabled preparation for the winter grain crops to commence.

Floods

Major flooding on the North Coast in all river systems north of Taree during March followed moderate flooding of the Richmond and Clarence River in February. Severe damage was caused to pastures, rural infrastructure and dwellings in the flood plains of all river systems involved. There has been widespread movement of livestock to agistment out of the flood plain. Dairy cattle have been severely affected with feed shortages, premature drying off and mastitis due to missed milkings, and hoof and other problems due to the constant boggy conditions.

Plague Locusts

Small hatchings have been reported in the area between Coonamble and Moree. These are the result of isolated migration in late summer. Relatively large populations are being monitored by the Australian Plague Locust Commission in northern South Australia and southwest Queensland. These have the potential to migrate into New South Wales and cause future problems.

QUARTERLY HIGHLIGHTS

Anthrax

During the quarter there were 8 submissions for anthrax of which 3 were positive. All positive cases occurred within the anthrax belt. One of the positive cases involved pregnant ewes at Condobolin RLPB where a total of 138 lambing ewes died. The disease occurred after sheep grazed a stubble paddock containing an old creek bed. All remaining stock on the property were vaccinated and there have been no reported further losses. Historically, anthrax was confirmed on the property on 2 occasions in 1935-1936.

The other 2 confirmed anthrax cases occurred on two separate properties in Narrandera RLPB. On one of the properties, 33 sheep and one calf died. This property was an old stock route and anthrax had previously been diagnosed on the property. The second case, involving the death of one cow, occurred on 31 March on a property with no known history of the disease. The producer had lost a few heifers 12 months previously, though the deaths were not investigated. Anthrax has occurred in the past on neighbouring properties. Both infected properties have vaccinated and have reported no further losses.

Exotic Disease Exclusions

Foot and mouth disease (FMD) was excluded in a 3 year old Angus cow from Tamworth RLPB which presented with profuse salivation and a nasal discharge. Areas of ulceration and necrosis were present on the muzzle, tongue, palate and oral mucosa. The cow was ELISA positive for pestivirus and had lesions histologically consistent with bovine papular stomatitis.

Virulent Newcastle disease virus (NDV) and avian influenza virus (AIV) were excluded in numerous cases during the quarter as the cause of mortalities and clinical signs in chickens exhibiting respiratory difficulties, depression or neurological signs.

Bovine Tuberculosis in NSW – traces from Queensland

During the quarter there were 747 cattle traced to NSW from a Queensland property detected with bovine tuberculosis (Tb). These 747 traces were from cattle that had moved after July 2000 and involved 26 destinations (excluding abattoirs).

Where identified, the cattle have been quarantined, valued for compensation purposes and sent direct to slaughter. As at 20 April 2001, 527 have been slaughtered either under the program or prior to our contact with the owner, 189 are still to be destocked under the program and 31 are yet to be completely traced.

Of the 527 slaughtered, histologically positive Tb lesions have been found in 7 cattle from 4 properties. No culture results are available yet.

Approved property programs have been developed for these 4 properties. The programs involve total destocking of three properties (two under compensation while the third had already destocked) and testing of the cattle on the remaining property. At risk cattle in neighbouring herds will be tested.

Including the infected animals found in Queensland, histologically positive Tb cases have been found in 1.2% of cattle slaughtered to date. QDPI are expected to advise further movements of cattle into NSW prior to July 2000.

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

DISEASE TRENDS AND PREDICTIONS

Trichomoniasis in a Rent-a-Bull

An outbreak of trichomoniasis occurred in the Gunnedah region involving a “rent-a-bull” scheme. Two out of the three “rent-a-bulls” have tested positive for trichomonas. The owner of the bulls had previously spread vibriosis around the district via the same means, though has since vaccinated for that disease. There currently appears to be a greater awareness of reproductive diseases in cattle in the area, with vibriosis, leptospirosis, pestivirus and trichomoniasis being diagnosed. This is evident by the increase in vibrio positive herds, and that veterinary practitioners are now using the In Pouch system for the diagnosis of trichomoniasis.

Contact: Bob McKinnon Tamworth (02) 6766 5899

Three Day Sickness Epidemic

Since late February a small area of the Narrabri RLP Board northwest of Wee Waa has suffered a severe bovine ephemeral fever (BEF) epidemic. This followed severe localised flooding in these areas. BEF generally occurs in the Narrabri district as epidemics every 4-5 years following suitable rain in late summer or autumn and a sufficiently immuno-naïve bovine population. Deaths are limited to large animals (bulls mostly) that die of exposure when trapped in the open away from shade and water.

The current epidemic has been mostly limited to the flooded area with a few sporadic cases elsewhere. One major feature of this epidemic is the number of deaths involved. Most herds affected have had approximately 15% of cattle showing clinical signs of BEF. Of these clinically affected animals there has been a 12% mortality rate, with over 60 deaths being reported from three herds. The mortalities have been unusual in that they have involved younger adults (predominantly yearlings), clinical signs have included nervous signs, temperatures have been mild, and access to water was not restricted.

Contact: Shaun Slattery, Narrabri on (02) 6792 2533

Internal parasites of sheep

Problems with *Haemonchus* were encountered not only in the *Haemonchus*-endemic areas (New England and nearby areas), but also in the pastoral zones of the state due to storm activity over summer/autumn. High worm egg counts and scattered losses due to haemonchosis were encountered in the Bourke district.

ML resistance in *Haemonchus* is no longer a rarity in the New England region of New South Wales. In the last few years, we have seen a number of cases from southern NSW in which ML-resistance (in *Ostertagia*) was considered a possibility, though not confirmed. Recently, however, a few "highly suspicious cases" have arisen in southern tableland sheep enterprises, and two at least gave FECRT results consistent with ML-resistance in *Ostertagia* sp. In one case, the 'ML' group had a strongyle FECR of 18% (estimated *Ostertagia* FECR was 7%); the "1/2 dose ML" group had a strongyle FECR of 10%). In the other case, the estimated FECR for *Ostertagia* in the ½ dose ML group was 61%.

Further work needs to be done, however, producers in southern NSW or elsewhere should not be assuming that (a) there is little or no resistance to MLs on their farm or in their district, or (b) MLs will last indefinitely.

For more information: http://www.agric.nsw.gov.au/Sheep/Health/internal/

Contact: Stephen Love, Armidale on (02) 6776 5013

DISEASE CONTROL AND ADVISORY PROGRAMS

Bovine Johne's Disease Market Assurance Program

At the end of the quarter there were 1246 herds (146,476 cattle) with a status under the BJD MAP. Of these, 490 herds (50,713 cattle) have undergone 2 tests and 97 herds (5,212 cattle) have undertaken 3 tests under the scheme.

There have been 406 herds (~16%) with reactors to the Bovine ELISA of which 29 (~2.3%) are infected herds. The majority of reactors, 325 from 191 herds, have been identified during round 1 testing of which 24 (2%) were infected. There were 64 reactors from 37 herds in round 2 testing of which 4 (0.9%) were infected, and 17 reactors from 6 herds in round 3 testing of which 1 (1.3%) is currently infected.

The number of herds with a monitored negative (MN) status has decreased since the last quarter from 917 to 896, this is outlined in Table 1.

Table 1: Number of Herds with a Status under the CattleMAP

MAP Herd Status	This Quarter	Last Quarter	At 30 June 1999
MN1	337	356	376
MN2	302	313	213
MN3	257	248	0
NA	245	194	61
TOTAL	**1141**	**1092**	**650**

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

Australian Sheep Johne's Disease Market Assurance Program

During the quarter there were 12 new flocks entering the SheepMAP, 10 were located in the Control Zone and 2 were located in the Residual Zone. This brings the total number of flocks in the program to be 351, with 269 at a status of MN1, 81 MN2 and one at MN3. There were no new SheepMAP flocks found to be infected during the quarter with the total remaining at 13, of which 7 are located in the Residual Zone and 6 are located in the Control Zone.

Table 2: Status of SheepMAP flocks in NSW

MAP Status	**This Quarter**		**Last Quarter**		**31 March, 2000**	
	Residual	**Control**	**Residual**	**Control**	**Residual**	**Control**
MN1	35	234	44	220	248	58
MN2	10	71	9	66	7	0
MN3	0	1	0	0	0	0
IN	7	6	7	6	3	1
TOTAL MN1/MN2/MN3	**351**		**339**		**313**	

Since inception of the program in May 1997 there have been 52 flocks in New South Wales which have ceased enrolment in the SheepMAP. The reasons for leaving the program are outlined in Table 3.

Table 3: Reasons for flocks leaving the SheepMAP in NSW

Reason	Control Zone	Residual Zone	TOTAL
Infected	6	7	13
Suspect	2	0	2
Disbanded	8	2	10
Withdrawn	4	3	7
Lapsed	14	5	19
Suspended	1	0	1
TOTAL	**35**	**17**	**52**

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

Australian Goat Johne's Disease Market Assurance Program

There was one new entry during the quarter bringing the total number of herds in the GoatMAP to 35. This is an increase of 16 herds during the last 12 months. There are predominantly fibre (Angora and Cashmere) and Boer goat herds participating in the program. One goat herd has dropped out of the program since July 1999. This occurred when OJD was diagnosed in sheep that co-grazed on the property. Infection was not detected in the goat herd which was disbanded.

A review of the 1999 GoatMAP was held during March at a workshop including industry and government representatives. Comments and recommendations from that meeting will be used to revise the current guidelines and to bring them into line with the current SheepMAP and CattleMAP.

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

Ovine Brucellosis Accreditation Scheme

As at 31 March there have been 2,365 flocks with a status under the NSW OB accreditation scheme. Of these, 1148 are no longer involved in the scheme, 1212 are currently accredited free of ovine brucellosis and 5 are suspended. During the quarter there have been 5 voluntary cancellations, 1 voluntary suspension and 1 new flock enter the scheme.

During the quarter there were 2,677 rams tested for accreditation purposes using the CF Test, of which there were 84 (3%) reactors. Also, 66 rams were tested for diagnosis purposes of which 23 (35%) were reactors, 12 rams were tested for export with no (0%) reactors and 656 rams were tested during routine monitoring, mainly in the western areas of NSW, of which there were 73 (11%) reactors.

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

New South Wales Footrot Strategic Plan

There have been a number of outbreaks of footrot during the quarter due to highly favourable seasonal conditions resulting in the full expression of footrot lesions. Summer eradication programs are being undertaken and the success of these will be determined later in the year.

A shortage of contractors to undertake footrot work has been identified in many areas.
Contractors involved with footrot work are currently undergoing an assessment process to maintain certification with the Board of Veterinary Surgeons in NSW. This will enable them to continue working in footrot programs.

The New South Wales Footrot Technical and Advisory and Steering Committees met during the quarter to give technical direction and monitor progress on the Footrot Strategic Plan. The current target is to move the whole state to Control or Protected Area status by the end of December 2001. From there, the next milestone is to move to totally Protected by the end of 2005. Continued involvement with footrot programs at the Board level will be essential to reaching these targets.

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

Cattle Tick Control Program
There have been 17 cattle tick infestations detected from January 1 to April 11, 2001. This is a marked reduction (38%) of the number of infestations that were detected during the same period last year.

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

DISEASE SURVEILLANCE

National Transmissable Spongiform Encephalopathy Surveillance Program (NTSESP)
During the quarter there were 55 TSE submissions, including 23 bovine and 32 ovine brains. This is an improvement on the same quarter last year where there were a total of 32 TSE submissions, including 17 bovine and 15 ovine. Hopefully the increase in ovine submissions comparative to the same period last year will continue and NSW will meet the targeted number required. The number of brains submitted during the quarter, comparative to the same period last year is detailed in Table 4.

Table 4: Number of brains submitted to NTSESP

SPECIES	**Bovine**	**Bovine**	**Ovine**	**Ovine**
SUBMITTER	This quarter	Jan-Mar, 2000	This quarter	Jan-Mar, 2000
Abattoir	2	0	2	2
District Veterinarian	7	6	20	10
Private Veterinarian	14	11	10	3
TOTAL	**23**	**17**	**32**	**15**

Contact: Belinda Walker, Gunnedah on (02) 6742 9293

Newcastle Disease
By the end of the quarter all infected properties (IPs) have been depopulated and cleaned. Movement permits are being issued following veterinary risk assessment for poultry and products out of the area. Sentinel programs on all quarantined farms are approaching conclusion and quarantines will soon be lifted.

In the Gunnedah region, the permit system for poultry and poultry products moving from the Designated Restricted Area (DRA) for Newcastle disease is starting to run more smoothly, though industry have been slow to adopt the practice of taking monthly serology samples which is required for some movements.

Mangrove Mountain groundwater monitoring has been undertaken during the quarter, with all results to date negative for Newcastle disease virus.

Contact: Rory Arthur, Orange on (02) 6391 3719

Bee Diseases
For the period 4 December 2000 – 4 April 2001 there were 46 reports for American brood disease. There have now been 100 positive reports since July 2000. Of the 100 individuals, 13 had American brood

disease detected in the previous financial year. The number of positive American foul brood (AFB) honey lab reports during the quarter was 14, bringing the total number since July 2000 to 62.

With the cooperation of members of the NSW Apiarists' Association, a program of surveillance has been put in place to cover the State. Thirty-seven beekeepers will be involved and colonies will be sampled for 10 months of the year for exotic external parasites.

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

Ovine Johne's Disease (OJD) Surveillance

At the end of the quarter there were 550 flocks with a current status of infected (IN), 743 with a status of suspect (SU) and 1,922 with a status of under-surveillance (US) for OJD within NSW. The percent of infected flocks have slightly increased since last quarter in both the control (0.6% to 0.7%) and residual (8% to 9%) zones. Table 5 summarises the OJD status of flocks in both the Control and Residual zones this quarter and last quarter. Table 6 and 7 outline the number of flocks which have had a property disease eradication plan approved, and the number and percentage that have satisfactorily completed their eradication plan respectively.

Table 5: Summary of the OJD Situation in NSW

		As at 31 March 2001			As at 31 December 2000		
Flock Information	**Zone**	**No. flocks**	**Total No. flocks**	**% flocks**	**No. flocks**	**Total No. flocks**	**% flocks**
Current IN/flocks	CZ	193	26791	0.7%	176	27887	0.6%
	RZ	357	3988	9%	335	3988	8%
Current SU flocks	CZ	342	26791	1.3%	316	27887	1.1%
	RZ	401	3988	10%	373	3988	9%
Current US flocks	CZ	629	26791	2.3%	604	27887	2.2%
	RZ	1293	3988	32%	1168	3988	29%

Table 6: Number of OJD PDEPs approved

	As at 31 March 2001		As at 31 December 2000	
Number of PDEPs approved	**New**	**Total**	**New**	**Total**
CZ	2	95	8	93
RZ	1	59	3	58

Table 7: Number & Percentage of OJD PDEPs completed

		As at 31 March 2001			As at 31 December 2000		
% IN flocks completing	CZ	61	244	25%	39	215	18%
PDEP	RZ	41	419	10%	50	385	13%

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

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. The extensive flooding that occurred late last year in the north west of the state has been followed by another period of above average rainfall during February and March. This led to some flooding in the north west and severe flooding along the north coast south to the Manning and Lower Hunter Valley.

Akabane virus.
Despite the favourable start to the season with early akabane transmission along the coast in December, since then, transmission has probably been later than usual with a lower than usual incidence. There were akabane seroconversions on the far North Coast and south to the Manning region during March but there has been no akabane transmission in the Hunter Valley to the end of March. There has been extensive transmission of one of the other simbu viruses, with seroconversions as far south as Camden by early March. Perhaps this has created interference with akabane transmission.

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. However, there has been an outbreak of moderately severe BEF in the Lower Hunter and in the Camden and surrounding districts during March.

Contact: Peter Kirkland, on (02) 4640 6331

Lyssavirus
Lyssavirus was excluded in 4 grey headed flying foxes, two of which had bitten adults and one which had bitten and scratched a child.

Hendra Virus
A dog that died after a sudden onset of respiratory difficulties with subacute interstitial pneumonia was negative for both hendra and nipah viruses.

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

Prepared by:

Catherine Taragel
Veterinary Officer
Orange Agricultural Institute
Forest Road, ORANGE NSW 2800
Phone: (02) 6391 3924 or Fax: (02) 6391 3899
email: catherine.taragel@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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