
July-September 2001

Number 2001/3

STAFF

To date there have been 13 District Veterinarians, 12 Rangers and 11 NSW Agriculture employees that have visited the U.K gaining valuable experience working on Foot & Mouth disease. The experiences they have brought back to Australia are extremely valuable and will be a great asset to our emergency disease preparedness.

Phil Kemsley, District Veterinarian at Tweed/Lismore resigned during the quarter and his position will be advertised and hopefully filled by the end of the year. The position of District Veterinarian at Condobolin has now been vacant for 5 months with repeated attempts to attract a suitable applicant going unrewarded.

From the surveillance team we wish you all
Safe New Year.



a **Very Merry Christmas** and a

LIVESTOCK & PASTORAL

CONDITIONS

Seasonal Conditions

Significant falls of general rain early in the quarter in the southern and northern areas of the cropping zone relieved a deteriorating situation with the exception of the Riverina and marginal wheat areas west of the line from Condobolin to Nyngan to Walgett. During September, above average rainfall occurred in the South-Western areas & average rainfall for most of the Slopes and Southern Tablelands. Below average rainfall was reported in the area north of Bourke, the Northern Tablelands, Hunter and much of the North Coast. This has compounded the dry winter conditions experienced in the Brewarrina, Bourke, Wanaaring and Cobar RLPBs in the North-West and the North Coast following the floods in March.

Elsewhere, conditions are average to marginal with many crops in southern and western areas suffering from moisture stress, particularly where ground preparation and soil moisture conservation was limited.

Pasture conditions show a similar trend where management and stocking rates have resulted in significant paddock shortages across many areas. Stock water is in short supply in many areas across the State, which has the potential to be a critical limiting factor as summer progresses.

Plague Locusts

Reports of small, concentrated hatchings of plague locusts in the Maules Creek & Wean areas south-east of Narrabri have been received. These populations are scattered and although dense, should be easily controlled and are not likely to result in any major threat later on in the year. There have also been minor reports of plague locust hatchings in the Gunnedah area with expected hatchings in the Moree, Tottenham, Ardlethan and Weethalle areas in the near future.

QUARTERLY HIGHLIGHTS

Anthrax

Six investigations for sudden death during the quarter were all negative for anthrax. Ketosis was determined as the alternative diagnosis in one instance.

Inclusion body disease in boid snakes

Suspected inclusion body disease of boid snakes has been diagnosed in two jungle pythons that were part of a collection seized by National Parks and Wildlife Services (NPWS) from a reptile keeper in the lower Blue Mountains. The pythons became sick while held in quarantine at Taronga zoo. Examination of brain sections under the electron microscope showed the presence of virus particles consistent with type C retrovirus, the cause of IBD in boid snakes. In early July, for disease control purposes, the zoo euthanased the balance of the collection, which included exotic snakes.

Suspect *lamanema chavezii* in alpaca

Extensive liver and epicardial abscesses were found at postmortem of a young alpaca. The mother was reported to have died with similar gross lesions, but no further investigation was done. Microscopic examination of tissues from the young animal showed suspect helminth larvae within the liver abscesses. *L. chavezii* is reported to be an important parasite of lamoids in South America, not previously reported outside that continent. Follow-up investigations of other alpaca on that property have not detected any unusually large embryonated eggs in the faeces.

Ruminant Feed Ban – BSE Audits

In August, Regulatory Officers commenced audits of approximately 250 dairies and feedlots to ensure compliance to ruminant feed bans as agreed to by ARMCANZ to protect Australia's BSE-free status. At the end of the quarter, 173 audits have been completed on 62 feedlots and 111 dairies. No breeches have been detected at this time. The total number of properties audited has been calculated to give 90% confidence of detecting illegal use of restricted material on 1% of the total feedlots and dairies in NSW.

Contact: Keith Oliver, Orange on 02 6391 3689

Update on Bovine Tuberculosis in NSW - Tracing from the infected herd at Queensland

A total of 729 cattle from the TB infected herd at Queensland were traced. All live traced cattle that have been located have been slaughtered.

To date, four infected herds have been identified. About 1,170 additional cattle have been de-stocked from 2 of these properties because of direct contact with traced cattle, 156 cattle indirectly in contact with the traced Queensland cattle have been TB-tested on a third property and the fourth property had no in-contact cattle to follow up. All four of these infected properties have now been released from quarantine. Thirty-nine trace-forward animals from one of the herds have been slaughtered with no lesions found.

Tracing of the cattle concerned has generally been straightforward except where dealers have purchased the cattle. In most cases the records available to trace animals once bought by a dealer are inadequate to be confident of the fate of the animals concerned. Brands on the cows and heifers have been useful for positive identification, however in one case a line of steers was not branded. In the absence of an identifier, it is impossible to be 100% sure about the destination of the animals being traced, particularly if they have already been slaughtered.

All cows except 15 in a consignment of 28 purchased at Roma by a dealer have been located. These cattle have since been dispersed. Possible destinations in NSW have been investigated and some Queensland trace animals have been found (6, 3 and 4 head). On this basis it appears most likely these missing cattle were in a consignment of 85 cows sold to an agent in South Australia. The fate

of 26 head of younger cattle was unable to be determined. These comprise 10 steers, 3 heifers and 13 calves.

Of the 365 adult cattle from Queensland which were ordered to slaughter, TB lesions were found in 5 animals (1.37%). [A lesion was also found in a calf, probably born to one of the infected cows]. These compare to the detection of 1 lesion in the 313 cattle (0.32%) slaughtered before the tracing commenced. Admittedly the age of the latter group of animals was lower (mainly heifers rather than cows), but it highlights the need for vigilance on the part of meat inspection staff.

Two further traces from Queensland have been advised and we are currently awaiting advice from QDPI as to whether any of these cattle came into NSW.

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

DISEASE TRENDS AND PREDICTIONS

Reproductive losses in pigs

Increased rates of perinatal mortalities, still births and splayleg occurred in two pig herds on the north coast of NSW. Both were negative for PRRS virus isolation on tissues from affected piglets. Myofibrillar hypoplasia (congenital splayleg) was considered an alternative diagnosis for one herd.

Maple Syrup Urine Disease in Poll Herefords

Maple Syrup Urine Disease (MSUD) was detected in a Poll Hereford undergoing routine health testing for licensed semen collection. DNA testing of semen from the sire of the MSUD positive bull showed that the sire also carried the Q-6St mutation responsible for MSUD.

Long-wool sheep lice control – definitely not Diazinon

There are no on-label recommendations for jetting sheep with diazinon except for flies, and this involves using far more product than for lice. The permit that previously allowed the use lapsed 18-24 months ago, and this treatment is now illegal and should not be recommended.

There are still a number of synthetic pyrethroid products registered for lice control on long-wool sheep. These products are rarely recommended because of extensive lice resistance and potential problems with wool residues and are currently under review by the NRA. The organophosphate Assassin® was on the market for long-wool lice control but has been withdrawn from sale. The newer spinosyn product Extinosaid® is now available and has a nil Wool WHP. The only possible problem with using it is that its protection period may be too short – sheep treated within 6-9 months wool may need retreating before shearing.

Contact: Lee Cook, Orange on (02) 6391 3722

DISEASE CONTROL AND ADVISORY PROGRAMS

Bovine Johne's Disease Market Assurance Program

At the end of the quarter there were 1,362 herds (156,288 cattle) that have tested under the BJD MAP. Of these, 613 herds (58,812 cattle) have undergone 2 tests and 156 herds (7,969 cattle) have undertaken 3 tests under the scheme.

There have been 250 herds (~12%) with reactors to the Bovine ELISA of which 33 (~2.3%) are infected herds. The majority of reactors, 335 from 199 herds, have been identified during round 1 testing of which 26 (1.9%) were infected. There were 78 reactors from 44 herds during or prior to round 2 testing of which 5 (0.8%) were infected, and 18 reactors from 7 herds during or prior to round 3 testing of which 2 (1.3%) are currently infected. The overall reactor rate of all cattle tested is 0.2%.

The number of herds with a monitored negative (MN) status has increased since the last quarter from 946 to 962, this is outlined in Table 1. The percentage of beef, dairy breeds in the program remains stable at 70:30 with 66% of all herds in the program being studs.

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

MAP Herd Status	This Quarter	Last Quarter	At 30 June 1999
MN1	358	356	376
MN2	318	309	213
MN3	286	281	0
NA	273	264	61
TOTAL (MN1 – MN3)	962	946	589

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

Australian Sheep Johne's Disease Market Assurance Program (SheepMAP)

During the quarter there were 10 new flocks entering the SheepMAP. This brings the total number of flocks in the program to be 348, with 220 at a status of MN1, 126 MN2 and 2 at MN3. There were no new SheepMAP flocks found to be infected during the quarter, one flock was given a suspect status and 6 flocks dropped out of the program. The total number of MAP flocks that have found to be infected is now 16, of which 10 are located in the Residual Zone and 6 are located in the Control Zone. In the last 12 months the total flock numbers in the SheepMAP has only increased by 21 from 327 to 348, with almost as many producers leaving the scheme for numerous reasons as new ones entering.

Table 2: Status of SheepMAP flocks in NSW

MAP Status	30 September, 2001		30 September, 2000	
	Residual	Control	Residual	Control
MN1	27	193	56	253
MN2	14	112	2	16
MN3	0	2	0	0
IN (Total)	10	6	4	4
TOTAL MN1/MN2/MN3	348		327	

Contact: Catherine Taragel, Orange on (02) 6391 3384

Australian Goat Johne's Disease Market Assurance Program

There were 6 new entries and no drop-offs during the quarter. This brings the total number of herds in the GoatMAP to 41. There are currently 37 MN1 herds and 4 MN2 herds in NSW. Of these, 20 MN1 and 3 MN2 herds are located in the control zone for JD in goats and 17 MN1 and 1 MN2 herds are located in the residual zone. **Contact: Catherine Taragel, Orange on (02) 6391 3384**

Ovine Brucellosis Accreditation Scheme

During the quarter there have been 6 new flocks enter the scheme, 4 suspensions including one voluntary suspension due to the property being diagnosed with OJD, and one that was suspended due to reactors. There have been 10 cancellations of which 7 have been voluntary, generally due to the flock being sold and dispersed and 3 due to lack of response to our correspondence.

During the quarter there were 5,464 rams tested for accreditation purposes using the CF Test, of which there were 173 (3 %) reactors. Also, 245 rams were tested for diagnostic purposes of which 94 (38 %) were reactors, 14 rams were tested for export with no (0%) reactors and 1,602 rams were tested during routine monitoring, mainly in the western areas of NSW, of which there were 76 (5%) reactors.

Contact: Catherine Taragel, Orange on (02) 6391 3384

National Antibacterial Residue Minimisation (NARM) Program

During 2000/2001, 0.25% of 7,488 NSW bobby calves tested at export abattoirs were positive on the urine MIT screen test conducted at the abattoirs. Confirmatory tests on the kidneys from these animals found that 0.05% had residues exceeding the MRL.

Of the 335 samples from calves killed at domestic abattoirs during 2000/2001 five (1.5%) were positive on urine MIT screen testing, and one (0.3%) sample had a residue exceeding the MRL on kidney confirmatory testing.

Thirteen (6.9%) of the 188 cull dairy cows sampled during 2000/2001, were positive on the tissue MIT screening test. One had a neomycin residue exceeding the MRL and one a neomycin residue between half MRL and MRL on confirmatory testing. The other eleven had residues below the limit of reporting. Table 3 summarises the NARM results for 2000/2001.

Two cows sampled as part of the Targeted Antibacterial Testing (TART) program and 5 NSW cows tested as part of the Queensland NARM program had neomycin residues exceeding the MRL on confirmatory testing.

None of the 110-feedlot animals sampled had significant residues detected.

Table 3: Summary of NARM results for 2000/2001

Class	No.tested	% MITscreen +ve	%>MRL
Export calves	7,488	0.25%	0.05%
Domestic calves	335	1.5%	0.3%
Cull cows	188	6.9%	0.5%

Field investigations were carried out when antimicrobial residues greater than half the MRL were detected. On one property it was found that accidentally feeding bull calves with medicated milk intended for heifer calves had caused residues in 11 calves including one whose residue exceeded the MRL. The owners were sent an official warning letter.

Two investigations found that the withholding period had not been obeyed. One case was due to a poor farm recording system and the owner was sent an official warning letter. The other case resulted from a mistake due to family stress (death of a partner) on farm that is usually well managed.

Investigations were carried out on 6 properties relating to neomycin residues over half the MRL in 9 cull cows. The withholding period had been obeyed in all but one case. The exception was a cow sold one day before the withholding period had passed. The NRA has been notified of this problem.

Contact: Sally Spence, Wollongbar on (02) 6626 1214

NSW National Organochlorine Residue Management (NORM) Program

During the period January 2000 to June 2001 ten properties were found to have OC residue levels in excess of the Australian MRL. This compared with only one property above MRL in the previous 12 months.

There were a further seven properties with detection's in the range Residue Action Level¹ (RAL) to MRL, which required a Field Investigation or Field Audit.

Available records show that 10,009 abattoir cattle samples were analysed for organochlorine residues during this period.

Of the 17 properties reported with residues at or above the RAL:

- seven were identified by "M" testing under the NORM program (from 1360 samples tested)
- four were identified by the Endosulfan Test program
- four were identified by abattoir QA tests
- two were identified by tests on stock from T listed properties.

These 17 properties were spread across nine Rural Lands Protection Boards.

OC residue sources included previous OC usage on crops (10), past termite control (3) and old OC chemicals in sheds or tips (2). In one case the contamination followed the use of old 200 litre Dieldrin drums as feed troughs.

Five of these properties were associated with current or past production of bananas, and extension material was developed to highlight the potential residue risks of grazing cattle in these areas.

National Residue Survey (NRS) Random Sample Program

So far this calendar year three above-MRL residues have been reported in NRS samples collected at abattoirs:

1. **Sulphadiazine in a sow:** Multiple injections of Tribissen had been used to treat mastitis and the Withholding Period had been reportedly complied with.
2. **Neomycin in a dairy cow:** The cow had been treated for gangrenous mastitis with Special Formula 17900 Forte V, and had been slaughtered 1 day before the expiry of the Withholding period.
3. **Oxytetracycline in a porker:** Engemycin injection had been administered and the pig had been reportedly sold well within the Withholding Period. The treatment records had been destroyed by a sow!

¹ The RAL is half MRL for most OCs and 1mg/kg for DDT

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

EBL report - October 2001

The latest, July 2001 Bulk Milk Testing (BMT) round was completed with only one inconclusive EBL test result. A dairy herd located at North Coast with a history of EBL infection in 1997 is currently under District Veterinarian investigation. Table 4 outlines the EBL status of NSW dairy herds as at October 2001.

The highly successful NSW EBL Eradication Program is in its final stages of eradicating EBL infection from dairy cattle population in the State. The Program had commenced in 1993 with over 25% of NSW dairy herds being infected. Since 1993 the NSW Dairy Industry and NSW State Government provided over \$1.5 M for EBL testing of EBL infected herds and for BMT monitor testing of all the State dairy herds. The fund was exhausted for BMT by November 1999 and for herd testing by September 2001. Currently the cost of ongoing BMT monitor testing is paid by milk processing companies.

Table 4: EBL status of NSW dairy herds in October 2001

EBL Status		
Accredited & Certified Free	4	(0.3%)
Tested Negative	488	(34.5%)
Monitored Negative	885	(62.6%)
Provisionally Clear	6	(0.4%)
Infected	8	(0.6%)
Under Investigation	1	(0.1%)
Suspect	6	(0.4%)
Not Assessed	16	(1.1%)

Contact: Richard Zelski, Tocal on (02) 4939 8940

National Granuloma Submission Program

Kelly Lees (Part-time ALO at Orange) has resigned and for the last three months Sue Wilson (ALO Menangle) has worked increased hours pending arrangements for a replacement. Keith Newby (VO Grafton) assumed the role of NGSP coordinator for NSW in June.

There are currently 30 abattoirs in NSW (12 are export and 18 are domestic). Keith has visited 15 of these abattoirs in the last month, familiarising himself with the program issues, meeting Inspectors and examining ways to improve granuloma submission rates. The NSW Agriculture ALO team has met in June and September to discuss NGSP matters.

In 2000 – 2001 the export abattoir average granuloma submission rate was 1:2700 (approx) while that of domestic abattoirs was 1:390. About 40 times more eligible cattle were processed at export works than at domestic works.

It is intended to identify those works not reaching the target and find and address the specific reasons for low submission rates. The recent incident with the Queensland cattle will assist in highlighting the importance and relevance of the program locally.

This year's figures for July and August are not complete, however there is a pleasing improvement in submission rates from export works. Domestic kill figures of eligible cattle appear to be declining, reportedly as a result of strong market prices. Total submissions are lower as a consequence.

Table 5 represents the number of granulomas versus total and eligible cattle kill figures for July and August. The submission rates have not been corrected for the age of the cattle that the granulomas were collected from.

Table 5: Number of granulomas submitted during July and August 2001

July 2001

	<u>Number*</u>	<u>Total kill</u>	<u>Eligible cattle</u>	<u>Granulomas</u>
Export abattoirs	11	155323	48421	96 (from 11Ab)
Submission rate		1:1618	1:504	
Domestic	16	24674	5260	9 (from 2 Ab)
Submission rate		1:2741	1:584	

August 2001

	<u>Number*</u>	<u>Total kill</u>	<u>Eligible cattle</u>	<u>Granulomas</u>
Export abattoirs	11	132683	29652	71 (from 10 Abs)
Submission rate		1:1869	1:418	
Domestic	12	20848	1085	10 (from 4 Abs)
Submission rate		1:2085	1:108	

* = number of abattoirs returning kill figures.

NTSESP Quarterly Report, September 2001

Submissions of both cattle and sheep have increased substantially this quarter (Table 6). Based on our cattle and sheep populations, NSW is required to submit 100 cattle brains and 153 sheep brains per annum, to the program. We are now very close to achieving this target for cattle as outlined in Table 7.

Fewer sheep submissions have been received than we would have hoped, but achieving the sheep numbers required is always a struggle, and the progressive total of 104 is better than last year at the same time. In view of the fact that more submissions are normally received in the warmer months, we may well meet this target by the end of the year. (In the past there has been some leeway allowed, with higher numbers from other states being used to achieve the required national total.)

Table 6: NSW NTSESP Submissions July – September, 2001

SPECIES	SUBMITTER	No of Brains
Bovine	Abattoir	5
	Govt.	31
	Private	27
	Bovine Sub Total	63
Ovine	Abattoir	7
	Govt.	33
	Private	22
	Ovine Sub Total	62

It is pleasing to see that a few more abattoir submissions are now being received, following a recent promotion of NTSESP. (We have received 5 cattle and 7 sheep this quarter from AQIS, compared with only 2 of each for the previous 6 months.)

Table 7: NTSESP NSW Submissions Year to Date as at 19/10/01

SPECIES	SUBMITTER	No of Brains
Bovine	Abattoir	7
	Govt.	38
	Private	52
	Bovine Sub Total	97
Ovine	Abattoir	9
		58
		37
		9
Ovine Sub Total	104	

There are conflicting reports about laboratory staff attitudes to some submissions. Some staff are concerned that some practitioners are stretching the TSE criteria, to get free laboratory testing for other cases. This may account for the fact that there have also been complaints from some RLPBs that less tests are being done by the laboratories to establish an alternative diagnosis. Others laboratory concerns are that some submissions are insufficient to provide an alternative diagnosis. An alternative diagnosis is always preferable to TSE negative, no diagnosis, particularly if our scheme is audited by OIE.

Another letter will be sent to large animal practitioners and RLPB veterinarians to remind them about the scheme, and point out its advantages to them. If the numbers contributing could be increased, the quality of submissions could also be improved. We currently only have about half of the RLPBs contributing to the scheme on a regular basis.

Contact: Belinda Walker, Gunnedah on (02) 6742 9263

Bee Surveillance

During the quarter there have been 62 positive reports for American Brood Disease from 53 beekeepers. Of these 53 beekeepers, 9 also had positive reports during the previous financial year and 14 have never had a recorded history of positive AFB smear or honey sample.

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

Cattle Tick Eradication Programs

This year, a total of 41 infestations were detected which is a reduction of 49% on the 80 infestations last year. The spring eradication program is due to commence in October. This year, stockowners have been given a wider range of treatment options if they do not have access to a dip. This is the first year that stockowners with infested herds have been required to make a contribution to tickicide costs (25% of costs from 1 September). The Department subsidy reduces by 25% each July until the producer meets total costs.

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

Ovine Johne's Disease (OJD) Surveillance

At the end of September there were 599 flocks with current status of infected (IN), 801 with a status of suspect (SU) and 2021 with a status of under-surveillance (US) for OJD in NSW. Table 8 summarises the OJD status of flocks in both the Control and Residual Zones for the current quarter and last quarter.

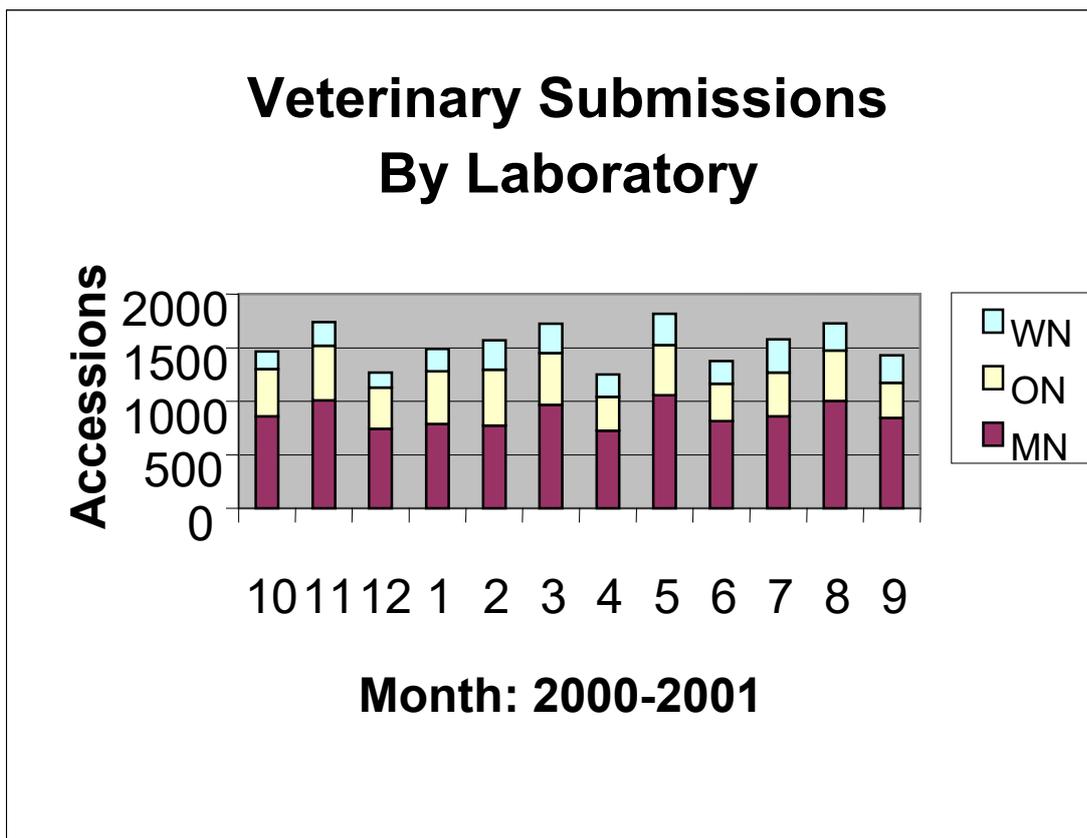
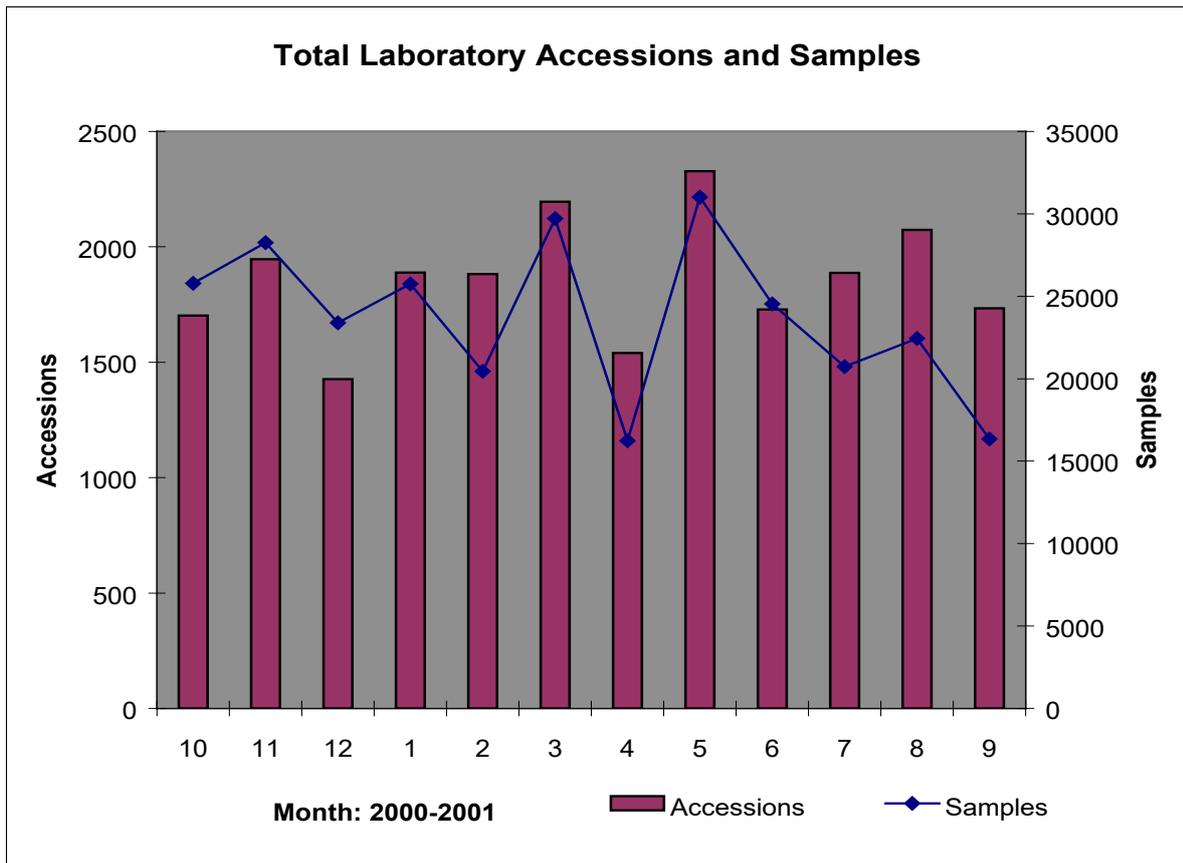
Table 8: Summary of the OJD Situation in NSW

Flock Information	Zone*	As at 30 September 2001			As at 30 June 2001		
		No. flocks	Total No. flocks	% flocks	No. flocks	Total No. flocks	% flocks
Current IN/flocks	CZ	229	26191	0.8%	222	26791	0.8%
	RZ	370	3388	9.1%	362	3988	9.1%
	R/C	21	1200				
Current SU flocks	CZ	419	26191	1.4%	388	26791	1.4%
	RZ	382	3388	10.2%	406	3988	10.2%
	R/C	98	1200				
Current US flocks	CZ	772	26191	2.6%	684	26791	2.6%
	RZ	1249	3388	32.3%	1290	3988	32.3%
	R/C	170	1200				

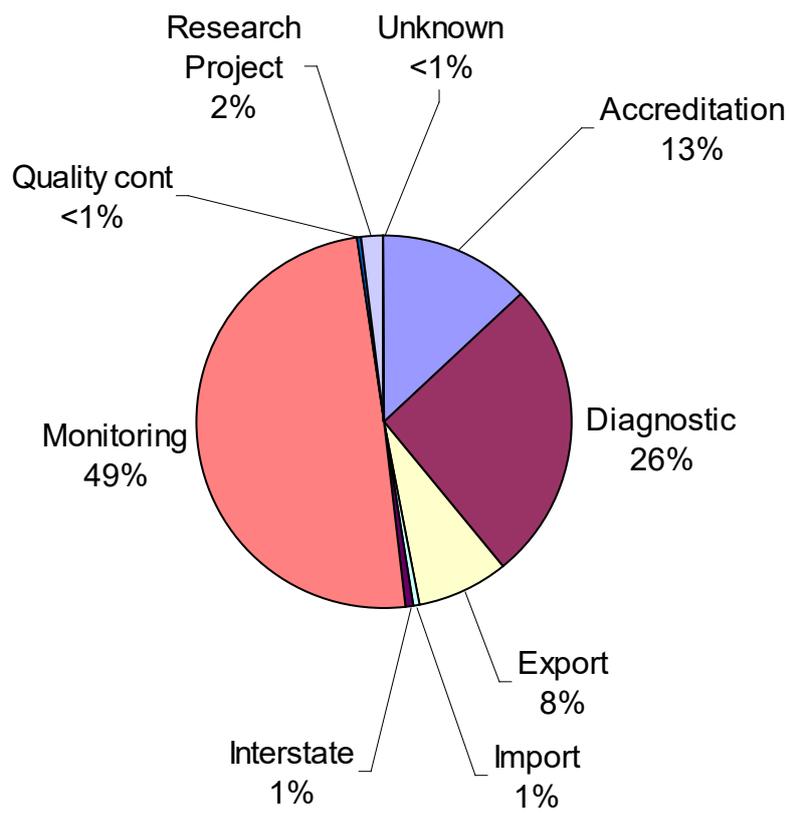
Contact: Ian Links, Wagga Wagga on (02) 6938 1992

Laboratory Submissions

The following three diagrams outline the Total Laboratory Accessions and Samples, Veterinary Submissions by Laboratory, and the Reasons for Veterinary Submissions for the 12 months to 30 September 2001, respectively.



Reasons for veterinary submissions 12 months to Sept 01



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/apfb/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>



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