

ANIMAL HEALTH SURVEILLANCE

MAY 1996

Number 96/2

Livestock and Pastoral Conditions

A massive trough system stemming from seas to the north of Australia brought heavy rains and flooding to northern coastal areas. Good falls arched across the northern slopes and plains as far west as Nyngan and Cobar.

However, the expected May transition from northern tropical to southern ocean systems has been disappointing. Southerly fronts have been forced to the south of the continent, bringing few substantial falls. Much of the far northwest, southwest and central parts of New South Wales have been declared in drought by Rural Lands Protection Boards. Feed availability is fair to excellent along most of the coast, and in the southeast of the State.

Drought declarations indicate that there are increased risks of malnutrition and starvation of stock, and of land degradation, over much of New South Wales.

Disease Trends and Predictions

Rabbit calicivirus is expected to appear over a much wider area of the State. Yersiniosis, associated with grazing previously flooded areas, is expected along northern coastal river systems. The flooding is likely to increase the prevalence of a range of moisture-related infections, such as leptospirosis, fusobacterium, aeromonas and pseudomonas.

Neosporosis, vibriosis, leptospirosis, pestivirus and mineral imbalances continue to contribute to abortions and infertility in cattle.

With increasing awareness of Johne's Disease in both cattle and sheep, the disease is expected to be diagnosed more frequently.

The late summer/autumn epidemic of bovine ephemeral fever in the northeast of New South Wales has ceased.

*Contact: Greg Curran, Cobar,
(068) 36 2108.*

Investigations of Suspected Exotic Diseases

Equine disease surveillance

Equine morbillivirus (EMV) was considered in over a dozen investigations of mortalities of horses around New South Wales. Exclusion testing for EMV proved negative in all cases. Queensland authorities have found evidence to suggest that fruit bats may have EMV or a related virus.

Contact: Ian Bell, Orange, (063) 91 3691.

Bluetongue eliminated as cause of death in New England sheep

In early May, bluetongue was considered as a possible cause of coronitis; lower limb oedema; swellings about the lips, ears and/or face; haemorrhage; and a 10% mortality rate in New England weaners. Samples submitted to Australian Animal Health Laboratory and Elizabeth Macarthur Agricultural Institute excluded bluetongue. The problem is believed to be a photosensitisation due to eating Panicum species (panic grasses).

Contact: Eric Davis, Armidale, (067) 70 1818.

Avian influenza excluded in deaths of Wagga turkeys

The possibility of Avian Influenza was investigated on a Wagga farm where 60% of mixed age turkeys died. Clinical signs included depression, pallor, and recumbency. Postmortem showed lung, myocardial, liver and splenic congestion, and occasional epicardial ecchymoses. Pasteurella multocida was isolated at Wagga Regional Veterinary Laboratory with Avian influenza excluded. Antibiotic sensitivity testing allowed effective treatment of remaining birds for Fowl

cholera. Losses, including disposal of dead birds, were estimated to cost \$80,000.

Contact: George Arzey, Elizabeth Macarthur Agricultural Institute, (046) 29 3333.

Significant Disease Events

Rabbit Calicivirus spread continues

Continued monitoring by RLP Board staff and NSW Agriculture has found a number of apparently isolated outbreaks near Cooma, Bathurst, and Cobar, after earlier outbreaks near Broken Hill in late 1995, and in southwestern New South Wales in autumn this year. The outbreaks in southwestern New South Wales are thought to be extensions moving north from Victorian foci.

Contact: Terry Korn, Dubbo, (068) 81 1266.

Cattle Tick found on a horse near Wagga

The Wagga Regional Veterinary Laboratory confirmed the presence of cattle tick on a horse brought from northern New South Wales. The horse had apparently been introduced from Queensland. The animal has been treated, and in-contact animals examined.

Contact: Rob Walker, Wagga, (069) 23 0463.

Anthrax

Anthrax was confirmed in a Condobolin herd some weeks after the cattle were reported to have been vaccinated.

Contact: Steve Ottaway, Orange, (063) 91 3854.

Emu deaths

Emu health problems are becoming increasingly important in this emerging industry. Erysipelothrix rhusiopathiae was

isolated in one flock mortality, where emus were dying with signs of septicaemia. In a second flock, vitamin E deficiency was suspected by investigators, Wagga Regional Veterinary Laboratory and a private practitioner. Birds had illthrift, thickened skin, slight inco-ordination, leg tremor, and generalised myopathy. These emus had been fed a high fat ration, analogous to the aetiology of mulberry heart disease in pigs.

Disease Control & Quality Assurance Programs

Footrot eradication on track

The sheep industry is continuing to make solid progress towards having the whole of New South Wales declared a Footrot Protected Area by the year 2000. The latest footrot declarations show that some areas that were once considered "footrot country", such as around Bathurst, Yass, and Hay, have now brought the disease under control. Some copies of the *Footrot Eradication Manual* are still available for practitioners. A recent economic analysis of the footrot campaign indicates that there has been a substantial reduction in the cost

of footrot to industry, from about \$39 million in 1990, when the disease was widespread, to about \$13 million in 1996. *Contact: Rob Walker, Wagga, (069) 23 0463.*

Controlling Johne's disease in cattle

The national Johne's Disease Market Assurance Program was launched in late May. Training programs for veterinarians interested in becoming accredited are planned for June and July.

Contact: Tim Jessep, Goulburn, (048) 23 0744.

Disease Surveys and Studies

Internal Parasite Burdens at Armidale RVL in March, 1996

Sheep *Haemonchus* egg counts from submissions to Armidale RVL during March have been lower than for 1995 but similar to 1994. *Trichostrongylus* counts for March 1996 were slightly higher than 1995, but lower than 1994. This pattern reflects seasonal conditions in New England, which were much drier during 1995 than in either 1996 or 1994.

(Contact: Eric Davis, Armidale, 067 70 1818).

Table 1. Proportion of mobs in each eggs per gram range : from March submissions to Armidale RVL

| Parasite | Worm egg count (epg) | 1996 | 1995 | 1994 |
|-------------------------|----------------------|------|------|------|
| Haemonchus | 0 - 250 | 81% | 65% | 83% |
| ~ | 251 - 500 | 6% | 10% | 4% |
| ~ | over 500 | 12% | 25% | 13% |
| Trichostrongylus | 0 - 250 | 62% | 77% | 53% |
| ~ | 251 - 500 | 19% | 15% | 24% |
| ~ | over 500 | 19% | 8% | 23% |

**New South Wales Laboratory System:
1995 Workload**

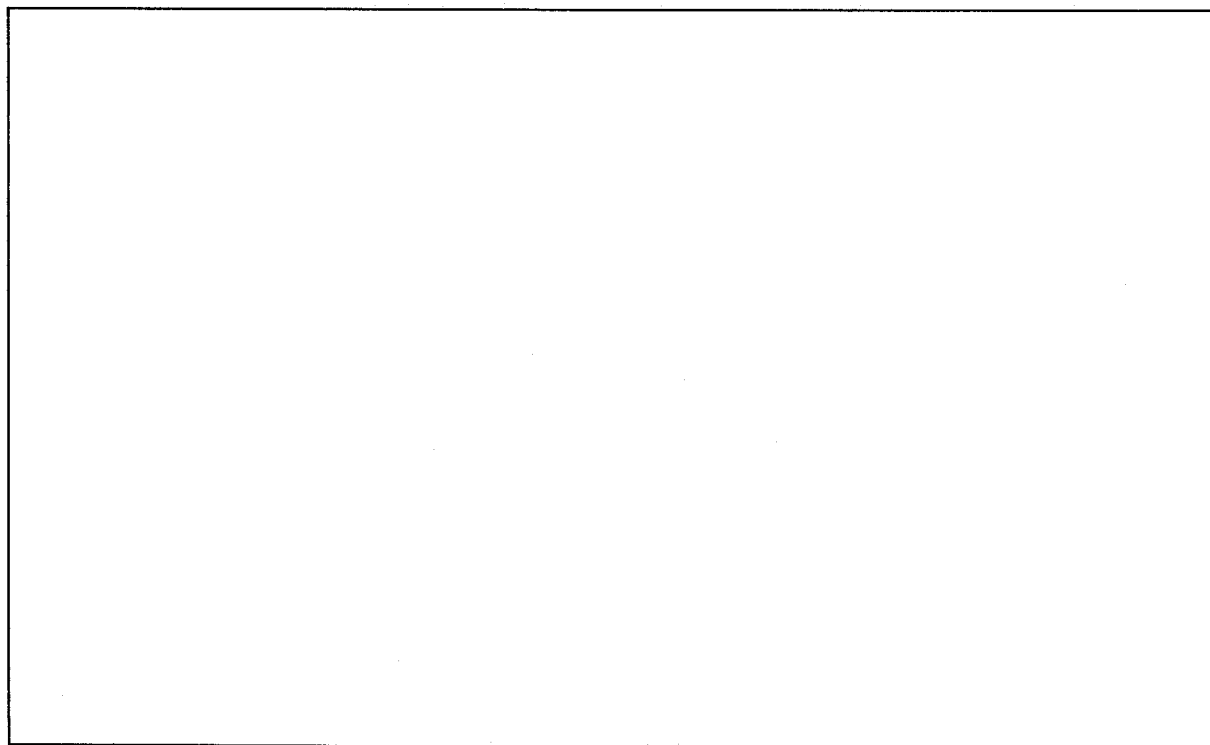
Cases and results of work by NSW Agriculture's veterinary laboratories are recorded in a computer system called Labsys. Total accession workload for each

area of New South Wales for 1995 is shown on the map below. The workload of each laboratory is shown in Table 2.
Contact: Don Jones or Owen Elvery, Elizabeth Macarthur Agricultural Institute, (046) 29 3333.

Table 2. Number of Accessions to each Veterinary Laboratory

| Veterinary Laboratory | Number of Accessions |
|------------------------------|-----------------------------|
| Armidale | 4259 |
| Menangle | 8057 |
| Orange | 3395 |
| Wagga Wagga | 5385 |
| Wollongbar | 4006 |
| NSW | 25082 |

**1995 Accessions
to NSW Regional Veterinary Laboratories
by Rural Lands Protection Boards**



Animal Health Research

Vitamin A and beef feedlots

Armidale Regional Veterinary Laboratory is collaborating with the Beef Research Centre to investigate whether vitamin A affects marbling in meat. The project will test if halving the amount of vitamin A over a 300day feeding period enhances marbling of meat. The absence of retinoic acid (a vitamin A derivative) is known to reduce growth hormone, and promote proliferation of fat cells.

Contact: Barbara Vanselow, Armidale, (067) 70 1822.

Vitamin E, hind leg swelling, and heat stress in feedlots

Research at Armidale Regional Veterinary Laboratory has demonstrated that depletion of vitamin E of feedlot cattle can lead to damage to small blood vessels, especially those in the lower hind leg, where leg swelling may occur. This damage can impair a beast's ability to regulate its body temperature and lead to heat stress.

Contact: Barbara Vanselow, Armidale, (067) 70 1822.

Footrot testing: finding a firmer footing

A project comparing new methods of diagnosing footrot with current methods, including inspecting feet, is about to be finalised by Wagga Regional Veterinary Laboratory and CSIRO. The research has been carried out in 56 infected flocks.

Contact: Ian Links, Wagga, (069) 38 1934.

Developments in Disease Recording and Reporting

Effect of NSW Agriculture staff redundancies

Voluntary redundancies continued to impact on many aspects of NSW Agriculture's work, including animal health surveillance. Adjusting to reduced resources and

management will necessitate change in working arrangements within NSW Agriculture, and with NSW Agriculture's partners. It is expected that these new directions will emerge from discussions with people involved and industry, and with the establishment of "Centres of Excellence".

Training in Fieldvet and Epiinfo planned

A training program covering improvements to Fieldvet is being planned for District Veterinarians and NSW Agriculture veterinary officers. The training will be conducted by Evan Sergeant, in conjunction with senior field veterinary officers, at a number of centres around New South Wales. Further training in Epiinfo, and more advanced aspects of data management, reporting, and the internet will be offered to those interested.

Contact: Evan Sergeant, Armidale, (067) 72 2366.

Animal Health Policy

BSE in the UK and Trade

A recent meeting of Agricultural and Resource Management Council of Australia and New Zealand discussed the importance to Australia of situations where changes in trade were being driven by public perceptions, such as BSE in the United Kingdom. The need for a national response to such problems was highlighted.

AUSVETPLAN: the model for Australia's emergency response to other pest incursions

AUSVETPLAN, Australia's plan to control exotic animal disease outbreaks, is to be used as the model for emergency responses to incursions of exotic pests, terrestrial and marine weeds, and plant and fish diseases. This decision was taken at a recent meeting

of Standing Committee on Agricultural and
Resource Management.

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 NSW. 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 or departmental Senior Field Veterinary Officer or Regional Veterinary Laboratory.

For statewide information contact NSW Agriculture's Quality Assurance and Animal Health Program in Orange (063) 91 3237 or Fax (063) 61 9976.

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