



# ANIMAL HEALTH SURVEILLANCE

*July - August 1995*

Number 95/4

## Livestock and Pastoral Summary

A very cold July, followed by little rain and unseasonably warm to hot weather over much of the State in August, has severely affected pasture growth. Two thirds of NSW was declared drought affected at the end of August with only the Tweed-Lismore district, the northern and central western plains, Riverina and south west slopes not officially affected. Sales of store stock have been heavy. Good rain is needed in the near future to avert a disastrous summer across most of NSW.

## Disease Trends and Predictions

During the winter, short green feed was available in much of the State and grazing stock suffered from the expected range of problems, including hypomagnesaemia, hypocalcaemia, ketosis, internal parasites and plant poisonings. On the north-coast, where feed was very dry and low in protein, plant poisonings and problems associated with hand feeding and concentrating stock were common (including botulism and urea poisoning).

## Significant Disease Events

### Sudden deaths on lush legumes

Bloat and enterotoxaemia were major problems on the northwest plains. In the Narrabri district, about 40 of 2000 cattle at-risk on eight properties died on medic dominant pastures. These losses were much heavier than those experienced in recent years. The dry winter with heavy frosts had slowed the growth of medics in the area. (Contact: Shaun Slattery, Narrabri, 067 922 533).

Of about 10,000 cattle on the stock routes in the Walgett district, 263 head were recorded as dying

of bloat. It is estimated that another 700 deaths have occurred on properties within the district. Most losses occurred on pastures thick with lush clover or marshmallow weed on cold frosty nights with south-west winds. Do cattle stop eating in very cold weather and then gorge themselves?

In a farm trial to assess the efficacy of antibloat capsules, 9 of 50 untreated cattle and 7 of 200 treated cattle died of bloat during one such night. A further 12 untreated and 36 treated cattle were also dangerously bloated. The attack rate for untreated cattle was 42% and for treated cattle was 11%. After removal from the paddock no further losses were reported. (Contact: George Perry, Walgett, 068 281 047)

"Redgut" has been common in young sheep this year in central and southern NSW. A retrospective examination of records of "redgut" outbreaks held at the RVL Wagga since 1981 has shown that the condition occurs mainly in lambs under a year of age, grazing lush lucerne or white clover. The death rate has usually been between 1% and 4%. In the 11 years to 1991, only 9 outbreaks were recorded by the laboratory, but in the past 3½ years, 15 outbreaks have been investigated. (Contact: Barbara Moloney, Wagga, 069 381 926)

### Sudden deaths on hand-feeding

In the Mudgee district, nitrite poisoning was confirmed under unusual circumstances. Three cases involved drought feeding cattle on home grown hay produced from failed crops. On one property at Rylstone, 10 of 39 cows died overnight after 5 days on buckwheat hay. The owner recommenced feeding the same hay a month later and 11 of 40 cows died after their

second feed. In the third case on another property, 25 of 51 cows and calves died within hours of being fed home-grown millet hay.

It was hypothesised that the conversion of nitrate to nitrite in the hay stored in the open and subject to wet weather may have increased so that when fed, the hay had high levels of nitrites. Also cattle with a high intake of nitrate over some time may convert nitrate to nitrite more rapidly. When exposed to higher levels of nitrate in feed, they may convert it more quickly to toxic nitrite concentrations. (Contact: Helge Grant-Frost, Mudgee, 063 721 866).

Kurrajong seedpod toxicity, was suspected to have killed 30 of 60 sheep on a Mudgee district property.

### Reproductive Problems

On the north coast the anticipated outbreak of arthrogryposis and hydranencephaly has followed akabane infection of introduced breeding cattle in the autumn. Regrettably the vaccine developed by NSW Agriculture is no longer available commercially and, in the face of regular extension on prevention, cattle producers still introduce susceptible breeding females to the area.

Poor conception rates and abortions between 3 and 8 months of gestation were reported throughout the north and northwest during winter. On three properties *Leptospira hardjo* was identified as the causative agent with animals having MAT titres up to 1600. Titres to 800 were also found in cows aborting in the central west.

Campylobacteriosis was also confirmed in 7 northern herds with conception rates ranging from 60% to 90%.

Several herds in the central west experienced heavy undiagnosed perinatal losses. Six herds of calving cows and heifers in reasonable condition from Coonamble through to Orange lost on average 25% of calves with no evidence of dystocia and negative laboratory findings for infectious causes. Marginal calcium status has

been suggested as a possible contributing factor. (Contact: Bob Coverdale, Armidale, 067 701 801 and John Seaman, Orange, 063 913 864)

### Ataxia in pigs

In two semi-intensive piggeries in the Narrabri district which run adult pigs outside, weaners have been becoming lethargic and losing weight at about 10-15 weeks of age. A progressive ataxia developed in some cases and has resulted in the loss of up to 60 pigs over the last year. Suspecting ascariasis, and because levamisole had been used for a long time, the pigs were treated with ivermectin with a good growth response. Ataxia has continued in one of the units. Most cases are affected in the hind legs but some animals progress to all limbs. Histopathology detected an axonal degeneration and work is continuing to determine if a vitamin deficiency is involved. (Contact: Bob Coverdale, Armidale, 067 701 801).

### Cattle Tick Monitoring at Jugiong

During autumn, cattle tick was introduced to a Young district property on horses returning from Queensland. Three sentinel animals were introduced into the horse paddock on the property at the start of July. This was the time when, theoretically, infective cattle ticks could have become available. As weather conditions during winter were not favourable for the development of tick larvae, movement treatments for all stock have not been necessary. The only movements were prime lambs destined for slaughter and one horse which is undergoing 3 weekly treatments. The lambs were given a clean inspection prior to their movement to Cootamundra saleyards where they were sold for slaughter. (Contact: Steve Ottaway, Orange, 063 913 854)

### Group Disease Control

Taking a lead from successful footrot groups, the Greenethorpe Stockcare group has formed in the Forbes district to tackle disease control on a group basis. The eradication of ovine brucellosis is its main priority and 35 of 42 rams tested in the first

flock were found to have scrotal lesions or reacted serologically. Despite OB being eradicated from most stud flocks in NSW, these results indicate that there are still pockets of severe infection in commercial flocks. Of 63 submissions for accreditation testing to RVL Orange during the period, only two were positive for OB. In contrast, eleven of 20 diagnostic submissions were positive. (Contact: Steve Ottaway, Orange, 063 913 854)

### **Johne's Disease Updates**

**Sheep:** Another infected sheep flock was detected at Trunkey Creek in the Carcoar district, bringing the total number identified in NSW to 67. In addition to continuing progress in developing a control program for ovine JD, departmental R&D funds have been allocated to RVL Orange to support research to improve serological diagnosis of OJD. (Contact: Laurie Denholm, Orange, 063 913 863)

**Cattle:** At its initial meeting in early July the National JD Coordinating Committee set February 1996 as the launch for the National JD Market Assurance Program. The committee is currently selecting consultants to develop an extension program for producers and a training program for veterinarians who wish to be approved for the MAP.

**Alpaca:** Although new cases have recently been detected in Victoria and Queensland, no JD has yet been found in alpaca in NSW. The total number of cases detected is now seventeen. The Australian Alpaca Association is again considering a market assurance program following a meeting with Agriculture Victoria and NSW Agriculture in early August. (Contact: David Kennedy, Orange, 063 913 626)

### **Disease Surveys and Studies**

#### **EBL monitoring of dairy herds**

Bulk milk testing in July 1995 detected antibodies in 14% of 1856 herds tested. In March 17% of 1824 tested herds had been positive. The

breakdown of current herd statuses of the State's 1888 registered dairy herds is 28.2% Infected, 69.6% Bulk Milk Test Negative and 2.1% Not Assessed. One herd is Tested Negative. Infected herds move to BMT Negative after two years of negative bulk milk testing, a step taken by 66 herds after the March and July tests.

Based on the strength of the BMT result, it is estimated that 73% of infected herds have a prevalence in milkers of less than 5% and that 11% of herds exceed 15% prevalence in milkers. (Contact: Richard Zelski, Maitland, 049 302 419)

#### **Monitoring *Culicoides brevitarsis* movements**

The biting midge, *C brevitarsis*, is the principal vector of the important arboviruses, akabane virus and bluetongue virus. Insect trapping is continuing to refine models of its ecology. Akabane infections on the mid and far north coast confirm *Culicoides* activity earlier in the year. From October 1994 to March 1995, the midge moved as expected from the lower north coast around Taree, southward to the Shoalhaven and inland to the upper Hunter valley. Insect numbers were low on the fringes of the distribution. The attached map shows the movement of the front during that time. (Contact: Alan Bishop, Gosford, 043 481 900)

Contrary to an earlier report of a bluetongue seroconversion, follow-up has confirmed that no bluetongue virus spread was detected this past summer-autumn in NSW. Akabane was only detected on the north coast south to the Maitland district in the Hunter. (Contact: Peter Kirkland, Menangle, 046 293 333)

### **Developments in Disease Recording and Reporting**

Improved disease surveillance in the Dubbo region will follow the return to a full team of District Veterinarians in the area. Alan Lax, Gabrielle Patteson and David Risson have joined the RLPB's at Dubbo, Coonamble and Nyngan respectively.



