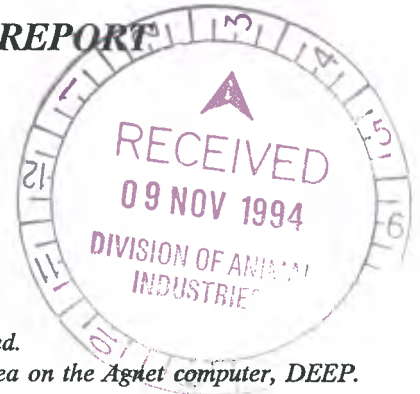


*NSW Agriculture & Rural Lands Protection Boards***ANIMAL HEALTH SURVEILLANCE REPORT***September – October 1994*

*Contributions to this Report are warmly welcomed.
Please submit them as Wordperfect documents on disk or to the COMMON area on the Agnet computer, DEEP.*

Livestock and Pastoral Conditions

Although southern NSW received rain in late October, most of the State was still severely drought affected at the end of the month. Only small areas of the far north coast and south-west were not declared officially drought affected for November. Stock feed and water was in short supply and breeding flocks and herds were being destocked.

As well as outright undernutrition, the drought has brought other health problems as stockowners attempt to keep their animals alive. Lambing percentages are down with stillbirths and mismothering common. Failed cereal and canola crops have been grazed (see below) or have been made into hay. Scrub is now being extensively utilised in western areas. Unusual feeds including sugar cane tops, pineapple leaves and cotton trash are being used and stockowners have been cautioned about the risk of feeding materials containing unacceptable residues.

Syndromes related to drought and drought feeding included calcium and phosphorus imbalances and deficiencies leading to bone weakness and subsequent fracture in cattle and sheep. Vitamin A and E deficiencies are also being recognised as it is now several months since stock have had adequate green feed. Fireweed poisoning has been common in cattle in the Gloucester district. Urolithiasis and grain poisoning were diagnosed in steers during introductory feeding programs.

On the north coast, numerous incidents of coccidiosis in calves and helminthosis and yersiniosis in scouring cattle of all ages have occurred, associated with declining physical condition of stock and concentration of stock in contaminated "soak areas". Yersiniosis was reported to have caused diarrhoea and deaths in 0.5–2% of yearling and adult cattle in 8 herds. Despite the dry conditions on the southern tablelands, internal parasites have been common in sheep, especially in lambing ewes. Presumably this is also associated with sheep concentrating on remaining green patches in low-lying areas. Significant burdens of *Haemonchus contortus* are still being detected especially in the Cooma and Bombala areas after mild conditions had allowed cycling on pasture to continue until June. *Fasciola*

hepatica were also commonly detected by egg count or ELISA blood test in both sheep and cattle over a wide area.

Investigations of Suspected Exotic Diseases

A cat that died at the quarantine station at Eastern Creek was negative for rabies but had multifocal necrotising pneumonitis associated with herpes type inclusion bodies indicative of feline herpesvirus.

Acute Equine Respiratory Syndrome

Following the notification of Acute Equine Respiratory Syndrome (AERS) in Queensland, one thoroughbred from the late Mr Rail's stables was traced to Broadmeadow Racecourse stables at Newcastle and another two in-contact horses were traced to Ballina. The three horses were placed under quarantine. Surveillance was maintained for nearly three weeks until serological tests for antibody to the causative virus proved negative. The horses remained in excellent health.

A number of suspected cases of AERS have been investigated in NSW with negative results. A horse at Broadmeadow died quickly after initially exhibiting diarrhoea. Mucous membranes had become cyanotic, but post mortem examination indicated only alimentary tract involvement with the lungs appearing normal. AERS was also excluded after a practitioner reported pulmonary oedema, facial swelling and a temperature over 40°C in a horse at Young. Highly suspicious clinical signs were also reported by an experienced Murwillumbah practitioner, but it appears that the cause of the problem was crofton weed poisoning.

During the AERS alert, NSW Agriculture and RLPB's traced horse movements from south-east Queensland and worked closely with horse owners, trainers, veterinarians and other people servicing the horse industries in NSW. There was also close cooperation with the racing and trotting clubs and associations, and with the Department of Sport Racing and Recreation and NSW Health. (*Contact: Ian Bell, Orange, 063 913 691*)

Significant Disease Events

Canola Poisoning

One of the outcomes of feeding unusual feeds in drought affected areas has been deaths in sheep on failed canola crops. Deaths have been reported on 10 properties in various age stock. They have usually occurred after 2 to 5 days on the crop with affected animals showing respiratory problems resulting from pulmonary congestion and oedema. These changes are similar to those reported with indole glucosinolate poisoning, one of the toxins in brassicas. In the central west mortalities of about 5% of 3100 sheep have been reported. (*Contact: Chris Bourke, Orange, 063 913 873 or John Searson, Wagga, 069 381 928*)

Botulism suspected in dairy cows

During September and October, a Gloucester dairy herd of 180 cows lost 13 milkers of suspected botulism. The deaths occurred in 3 separate waves, each lasting approximately 5 days. Affected cows salivated excessively, developed hindlimb weakness and became recumbent, but remained alert and continent before dying within 1-8 days of onset. No dry cows were affected but 3 heifers also died; two being found dead and the third seen with similar signs to the cows. Several feed sources were investigated, including round-bale silage. Standard tests have failed to either confirm botulism or identify any other cause.

Vaccination is being attempted to stem the losses. (*Contact: Alan Glassop, Wingham, 065 534 233 or David Gardiner, Maitland, 049 302 444*)

Multiple drug resistant *Salmonella typhimurium*

A multiple drug resistant *S typhimurium* which has caused a series of deaths in 7 day old calves is being investigated on two separate dairy farms at Johns River in the Gloucester district. Cases have exhibited acute onset of depression and died within 2 days. The investigation of case farms and neighbouring farms has not identified any significant contributing factors. The isolates were resistant to all drugs tested against gram negative organisms (triple-sulpha, tetracycline, neomycin, streptomycin, lincospectin and ampicillin) except for trimethoprim-sulpha. These are the first recorded cases of multiple resistance in salmonella on the north coast. *E. coli* isolates from the same calves was also resistant to multiple antibiotics. (*Contact: Peter Harper, Grafton, 066 420 467 or Alan Glassop, Wingham, 065 534 233*)

Anthrax Vaccine Supply

No cases of anthrax were confirmed during the period.

The State policy for anthrax is currently under review and negotiations are underway with the vaccine manufacturers, Cyanamid-Websters, about maintenance of an emergency supply of vaccine for outbreak control. The latest batch of vaccine has passed quality control tests but the supply is limited and it may be several months before another batch is produced as the plant is currently committed to producing botulism vaccine. The company is holding its current stocks and will supply vaccine for outbreak control and preventive vaccination on high-risk properties on the recommendation of District Veterinarians. Anthrax vaccine is also available from several rural retailers. (*Contact: David Kennedy, Orange, 063 913 626 or Laurie Pryde, Dubbo, 067 811 275*)

Border disease

Thoracic fluids from two lambs at Mudgee were positive to the Pestivirus Antigen Capture ELISA (PACE) test. The neonatal mortality claimed 50 lambs in a mob of 600 lambing merino ewes. Pestivirus was also involved in lamb deaths at Yass. Although mismothering and feed stress were the main problems samples from dead lambs were also positive for pestivirus.

Trichomoniasis follow-up

Tracing from the infected herd in the Nyngan district has not yet identified further spread of trichomoniasis. Of three herds at-risk in the Dubbo district, one was found to be a very low risk as the cows had calves at foot and a second had sold the animals at the "fat sale". Pregnancy testing of the third group, supposedly unjoined at the time of purchase, found one heifer about 4 months pregnant and the balance NDP. Tests on 3 heifers and on the bull to which they had been joined were negative for *Tritrichomonas fetus*.

Heifers traced to a Goulburn property have been given sexual rest and will be artificially inseminated. Surveillance will continue until empty heifers are culled and the rest have calved. Several bulls sold to a Condobolin district owner were all sent to slaughter. A mob

of cows moved to Carcoar district were joined and all except two were pregnant. Preputial scrapings from the bull have been negative on two occasions. (*Contact: David Counsell, Nyngan, 068 321 008*)

Tuberculosis

Tracing of 3000 cattle that were moved last year from Newcastle Waters in the Northern Territory to a Walgett district property was undertaken after TB was confirmed in one cow slaughtered at Katherine abattoir in May 1994. Fortunately all of the cattle had already been slaughtered and no lesions had been detected. (*Contact: Roy Everett, Orange, 063 913 719*)

Johne's Disease Update

Cattle

On October 1, restrictions on the entry of cattle from Victoria and Tasmania were introduced by Proclamation under the Stock Diseases Act. Essentially cattle will not be certified to enter NSW from those States, other than for slaughter, if they originate from a herd or property that has been known or suspected to have had Johne's disease in the previous 5 years. Some exemptions are permitted. (*Contact: Roy Everett, Orange, 063 913 719 or Wayne Norden, Yanco, 069 530 347*)

Johne's disease has now been detected in two stud cattle imported from Canada to different properties in the central west from Canada in recent years. Both cases were yearlings when imported and investigations have failed to detect Johne's disease in the herds to which they were imported. It is likely that they were infected before or during the importation process and the cases are being referred to AQIS for further investigation. (*Contact: Steve Ottaway, Orange, 063 913 854*)

The National Johne's Disease Market Assurance Program for cattle, which was endorsed by Animal Health Committee in August, has been forwarded to the cattle industries for critical consideration before the end of November. The AHC working party will meet in December to review the proposal in light of these comments and other recent reviews of JD. The Meat Research Corporation has circulated an independent consultant's report on the impact of JD and its control in the beef industry and the Victorian Department of Agriculture has released an economic assessment of JD and its control in the Victorian dairy industry, sponsored by the Dairy Research and Development Corporation. The consultants' final report to the NSW Cattle Compensation Fund Advisory Council has been received and is being submitted to the Minister for Agriculture for consideration. (*Contact: David Kennedy, Orange, 063 913 626*)

JD in Alpaca and Others

The first reported cases of JD in alpaca occurred in Victoria last year and, to date, 11 cases have been diagnosed in Australia (10 in Victoria and one in WA). Investigations indicate that all cases have apparently been infected on one Victorian property. There are over 60 contact animals in NSW, although no infection has yet been detected. In September, NSW Agriculture met representatives of the Australian Alpaca Association, Australian Veterinary Association, Royal Agricultural Society of NSW and District Veterinarians to develop a program to classify alpaca herds for JD. A national program similar to the NJDMAP for cattle was proposed and is to be considered by the AAA and the AHC working party on JD.

Comparative testing of alpaca sera by the EMAI and CSL absorbed ELISA's is being undertaken in collaboration with the Victorian Institute of Animal Science at "Attwood" with a view to the adoption of the absorbed ELISA as the standard test for alpaca in Australia (Contact: David Jordan, Queanbeyan, 06 297 1861 or David Kennedy, Orange, 063 913 626)

Disease Surveys and Studies

NAMP and akabane virus

This season's sentinel herd program and insect collection under the National Arbovirus Monitoring Program have commenced.

Following transmission of akabane virus along the northern and central coasts last autumn, cases of calves born with akabane disease are being reported. Heifers in the EMAI herd have recently started calving and 2 calves, born with crooked hind or front legs, had high pre-suckled antibody levels to akabane virus or characteristic spinal lesions. Both calves had no clinical signs indicating brain lesions and apart from being unable to walk seemed alert and responsive. Later born calves from infected dams can be expected to be "dummy calves", with hydranencephaly. (Contact: Peter Kirkland, Menangle, 046 293 333)

Salmonella abortus ovis Investigation

The ewe flock continued to be monitored under difficult drought conditions in the Moree district for *S abortus ovis*. Seven of 1000 ewes were post-mortemed and examined, including animals that had shown recent evidence of abortion or animals that had previously been diagnosed pregnant but which were obviously no longer in lamb. Examination of reproductive tracts from these ewes found no evidence of salmonellae. Observations are continuing on the property during lambing. The investigation will be concluded in November.

Field Diagnosis of Footrot

The field differentiation of virulent and non-virulent footrot has been a difficult challenge for the Footrot Strategic Plan, particularly under conditions that are unfavourable for spread. Recently the accuracy of field staff's diagnoses was assessed over a small series of difficult cases. Of 28 flocks where less than 1% of sheep showed score 4 lesions (the criteria that has been used in the past to determine benign footrot), staff had classified 16 as virulent footrot. This diagnosis was confirmed in 14 of the 16 flocks on the basis of elastase and gelatin gel tests. In 10 of the 12 flocks where a field diagnosis of benign footrot was made, laboratory findings also indicated benign footrot. (Contact: Rob Walker, Wagga Wagga, 069 230 463)

Developments in Disease Recording and Reporting

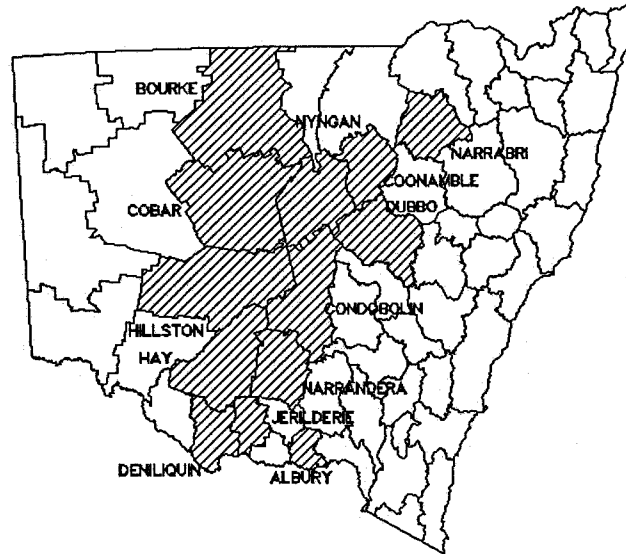
Anthrax Register and Vaccine Supply

To help district and property certification for anthrax for livestock and meat exports, a register of known anthrax incidents in NSW during the last five years has been developed in an *Epi Info* database with inputs by District Veterinarians from their office records. The database will continue to be updated through the new *Fieldvet 2* system as new cases are reported.

The districts in which anthrax was confirmed from 1990 to 1994 are illustrated below.

Districts
in which
Anthrax
was
Confirmed

Jan 1990 –
Oct 1994



Epi Info 6 and Fieldvet 2 Workshop

Senior Field Veterinary Officers attended a workshop on the latest version of the *Fieldvet* which is based on *Epi Info* version 6. Sessions on accessing disease and residue data from Agnet and the statistical capabilities of *Epi Info 6* were also held. *Fieldvet 2* is currently being trialled in the northern RLPB districts and will be released next month to District Veterinarians around the State. Several DV's and their Boards are waiting for the new system before commencing computerised disease recording.

An upgrade of *Epi Info 6* with minor debugging, version 6.02, has been distributed via the Internet by CDC Atlanta and is available as executable files to be expanded. Manuals for *Epi Info 6* have been printed and will be distributed to interested users. (Contact: Evan Sergeant, Tamworth, 067 662 384 or Steve Dunn, Gunnedah, 067 429 253)

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 RLPB District Veterinarian or departmental Senior Field Veterinary Officer or Regional Veterinary Laboratory. For statewide information contact David Kennedy.

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