# THE VETERINARY PATHOLOGY REPORT

Australian Society for Veterinary Pathology P.O. Box 483, Bairnsdale, Vic. 3875

Registered by Australia Post

Publication No.VBG 6333

October 1984 Num

Number 6

# ASVP IS NOW INCORPORATED

The Australian Society for Veterinary Pathology Incorporated is on and from the 29th August, 1984 incorporated under the Associations Incorporation Act 1981.

The purposes for which the ASVP is incorporated are:

- 1. To promote the advancement of veterinary pathology.
- 2. To encourage and facilitate the exchange of knowledge between veterinary pathologists through conferences, newsletters or any other means.
- 3. To act as a source of advice concerning veterinary pathology.
- 4. To assist veterinary pathologists in negotiations on professional matters.

A copy of the constitution was circulated to members in April 1984 and is available from the Secretary on request.

Robert Jones is the elected Public Officer of the Society.

# <u>REPORT OF THE WORKING PARTY ON CERTIFICATION EXAMINATIONS IN VETERINARY</u> <u>PATHOLOGY</u>

The working party on professional qualifications in veterinary pathology has sought advice both locally and overseas and consulted with Professor K.G. Johnston, President of the Pathobiology Chapter of the Australian College of Veterinary Scientists. For consideration by ASVP Members we offer the following conclusions and recommendations:

- 1. The establishment of indigenous professional qualifications in veterinary pathology represents a natural progression in keeping with the development of the discipline in Australia. The availability of certifying examinations is also desirable in view of the likely future advent of legislative regulation of specialist veterinary practitioners.
- 2. The most appropriate body for sponsoring certifying examinations in veterinary pathology is the Pathobiology Chapter of the Australian College of Veterinary Scientists.

- 3. Wide support from the Australian veterinary pathology community is a prerequisite for the effective operation of the ACVS Pathobiology Chapter as an accrediting body. Thus our key recommendation is that ASVP Members not yet associated with the Chapter be <u>actively</u> <u>encouraged to sit the Membership examination</u>. This would complement recent initiatives by the President of the Pathobiology Chapter.
- 4. Admission to the Chapter should be by examination. The awarding of honorary memberships is best avoided. Rarely, exceptions might be made in the case of individuals of such outstanding merit that there could be no criticism.
- 5. The working party recognises that many of the more experienced veterinary pathologists are well established professionally and will feel little need for further examinations. Here the Society could have a positive role in encouraging Members to take Pathobiology Chapter examinations by emphasizing the importance of a strong Chapter Membership for the future of their discipline in Australia.

A theme such as <u>VETERINARY PATHOLOGY NEEDS YOU</u>! could be useful.

- 6. We suggest that the ASVP executive raise with the Pathobiology Chapter the possibility of whether the recruiting of a substantial body of ASVP Members as candidates for Membership might allow a significant reduction in the examination fee on a "once-only" basis.
- 7. An expanded Pathobiology Chapter Membership might have as priority considerations :
  - a. comprehensive definition of requirements for Membership and Fellowship examinations.
  - b. the promotion of training courses for candidates and
  - c. the desirability of enhancing the identity of veterinary pathology through evolving a separate Pathology/Clinical Pathology Chapter.

SUSAN FRIEND

COR LENGHAUS

CLIVE HUXTABLE

NEILL SULLIVAN (Convenor)

## INDUSTRIAL ACTION BY VICTORIAN VETS

All veterinarians employed by the Department of Agriculture, Victoria held a stop-work meeting on September 25th. In a display of unity, 82 of 85 veterinarians employed by the Department walked off the job to protest against the Public Service Board's .attempt to downgrade their position. Partial success was obtained when a Ministry of Industrial Affairs taskforce was established to look at the situation. Below are some excerpts from the press release by Victorian Public Service Association General Secretary, Monty Burgess.

"Veterinary Officers have been provoked into taking industrial action by a reclassification proposal that threatens salary reductions of up to 25%."

They will take industrial action if the Public Service Board accepts a recommendation to abolish their classifications and absorb them into a broad science category," Mr. Burgess said.

"Since the recommendations of a review team commissioned by the Public Service Board were first made available to us, the VPSA and its Veterinary Officers Sub-branch has sought a negotiated solution to this dispute.

Our arguments have met with blatant indifference and disregard. Veterinary Offices now feel they have to resort to industrial action to protect their professional identity.

Today Veterinary Officers in the Department of Agriculture held the first stop meeting in their 112 year history and resolved to take further action if and when necessary."

"The proposed new scientific structure will reduce classification levels and salaries of Departmental Veterinarians which are currently in the middle of the range when compared with all other States and the Commonwealth," Mr. Burgess said.

"The VPSA maintains that Public Service Officers required to have registration as a veterinarian should continue to be classified as veterinarians."

## ASVP PRESIDENT BACK ON DUTY

Ian McCausland has now returned from his study tour of Australia and Europe. His tour was part of the C.J. Latrobe Scholarship awarded by the Victorian Government. He has produced a report entitled "State Funded Research and Development - Increasing the Benefit to Victoria". Anyone wishing to obtain a copy should contact Ian directly (051/52 2751). The report is quite detailed, but the concepts can be seen in its summary reproduced here:

"In most countries with comparable living standard, bright young graduates interested in research are employed by private industry where they stimulate growth and development. In Australia most go into government funded institutes which have a tradition of excellent research, but a poor record of development and implementation. ('The record is pathetic. The gap between research and product development must be closed' R.J. Hawke, September 1983). The Victorian Government employs over 500 graduate researchers, most engaged in applied research and development (R & D) concerning primary and secondary industry. Their promotion depends heavily on publication in scientific journals and they gain little credit for working closely with industry. There is no easy way for them to transfer their inventions to private companies.

The C.J. Latrobe Award was granted to undertake a study of R & D administration in Australia and overseas, and to recommend ways of improving the benefit from Victoria's strong research resource. Applied R & D organisations in Scandinavia were found to be very successful in transferring their expertise and inventions to industry while retaining a high level of technical expertise. Characteristics of these and other successful R & D organisations visited were: strong influence by the users or customers of research; the ability to enter contracts and accept fees; close contact with universities; and sufficient autonomy to respond to users' needs while remaining accountable to government.

The major recommendation arising from the study is that R & D institutes be reconstituted as corporate bodies similar to Victorian public hospitals. This organisational structure provides for flexibility of operation within a framework of increased industry influence and strict accountability to government. Adoption of this and the other recommendations offers real chance for the State to link its considerable inhouse R & D resources more closely to industry and help make Victoria the 'State of Innovation'."

# "FELLOWSHIP EXAMINATIONS IN VETERINARY CLINICAL PATHOLOGY FOR A.C.V.Sc."

It is anticipated that in August 1986 Fellowship examinations will be held with Dr.K.W. Prasse as examiner. Those who wish to take the examination or require further details should contact the Chief Examiner, Dr.E. Moodie (07 378 5522)."

# NEWS FROM THE STATES

# NEW SOUTH WALES - Prepared by John Glastonbury

## Encephalomyocarditis Virus Infection in Pigs

Undoubtedly the disease highlight of the past three months has been the increasing incidence of EMC virus infection in pigs in the western areas of the State associated with the current mouse plague. The following notes were very kindly prepared by Mark Carrigan of the R.V.L. at Orange:-

"Over the last 2 ½ months, Encephalomyocarditis has represented 30-35% of porcine submissions to the R.V.L. Orange. In all, there have been approximately 35 submissions diagnosed as E.M.C. and these represent 25 individual piggeries/properties. Diagnosis has been based on histopathology and virus isolation. Virus isolation has been positive on the majority of cases where fresh myocardium has been submitted to C.V.L. Glenfield. Pigs that died from E.M.C. ranged in age from 4 days to 23 weeks. Mortalities ranged from 2% of an affected group of pigs to 100%. Highest mortalities have been seen in suckers.

Characteristic autopsy findings were myocarditis with either pale foci 2-3mm wide and 4-8mm long throughout myocardium of the ventricles or a diffuse pallor of the ventricles. This has been accompanied by excess thoracic and abdominal fluid with fibrin tags in the abdomen and often hepatic and intestinal engorgement. Histologically, there is non-suppurative myocarditis, multifocal myocardial necrosis, often with mineralisation and diffuse/focal infiltration with mononuclear cells. The histological changes are more severe in older pigs and often very subtle in young piglets."

During August, 1984, the disease spread south and was diagnosed for the first time in the area serviced by the R.V.L. Wagga Wagga.

#### Enterocolitis or "flood mud scours"

Wet weather during winter favoured the occurrence of enterocolitis in cattle on the north coast. The condition is being investigated at the R.V.L. Wollongbar and <u>Yersinia</u> sp. is thought to be an important factor in its aetiology. <u>Yersinia</u> sp. were recovered from material submitted from 4 outbreaks during July and August.

#### Flavivirus infection in a horse

This virus genus is not restricted to northern Victoria. Paired serum samples submitted to the C.V.L. Glenfield from a horse displaying loss of appetite, difficulty in swallowing and loss of weight yielded the following haemaglutination inhibition titres:-

#### HI TEST TITRES

Virus	Acute phase serum	Convalescent
Ross River	<10	160
MVE .	<10	640
Kunjin	<10	>1280
Alfung	<10	640
Stratford	<10	>1280
Kokobera	<10	320

The seroconversions were indicative of an active flavivirus infection.

#### Personnel

Clive Huxtable is presently spending a short period of long service leave in Orange district. The boys from the local R.V.L. are looking forward to assistance with their pathological problems, while Clive is keen for some experience in the real world.

## WESTERN AUSTRALIA - Murdoch University, David Pass

#### An Unusual Case of Chronic Copper Toxicity in a Sheep

A single animal was presented with the classical history, clinical signs, gross and microscopic features of chronic copper toxicity (anaemia, haemoglobinuria, blue-grey kidneys, haemoglobin casts within renal tubules and copper storage within periportal hepatic macrophages.) Liver copper levels were elevated to six times normal (672 ug/g). The source of the copper was filings found within the abomasum resulting from the breakdown of some 5kg of electrical wire in the rumen. The animal was a house pet and was fed little roughage and developed an unusual appetite.

## Disseminated Aspergillosis in German Shepherds

Four more cases of disseminated <u>Aspergillus terreus</u> infection in middle aged German Shepherds have been diagnosed. All dogs have shown multi-organ involvement with prominent lesions in the vertebrae, spleen, kidneys and sometimes the heart and bone marrow. A specific immune deficiency to <u>A. terreus</u> is still being investigated as a cause.

# Myositis of Undetermined Cause in Two Horses

Two horses from the same property were presented with a hind limb weakness syndrome. The animals would stand with their hind limbs tucked up under their abdomens and carry most of their weight on their forelimbs. They would rock from side to side and showed fine muscle fasciculation. There were no apparent neurological deficits. The signs progressed over a period of two weeks until the animals were unable to stand. CPK was not markedly elevated and glutathionperoxidase levels were normal. Biochemical and ELISA tests for exposure to organophosphates and snake bite were negative.

There were no gross abnormalities and microscopic abnormalities were limited to the skeletal muscles. The lesions were found on both voluntary and involuntary muscle and were characterized by areas of multifocal segmental myocyte necrosis and a predominantly monocytic cellular infiltrate.

In past years similar losses have occurred on the same property. Exposure to a toxin was suspected but not confirmed.

# Two Cases of Suspected Paraquat Poisoning In Dogs

Two unrelated dogs died after a period of respiratory distress lasting 2-4 days. Pathology was limited to the lungs. They were uniformly dark red and consolidated. Histologically there was marked haemorrhage into alveoli and loss of Type 1 pneumocytes with hyperplasia of Type 2 cells leading to thickening of alveolar walls. As this is suggestive of pulmonary toxin, paraquat was suspected. Exposure to freshly sprayed vegetation was confirmed.

# Salmonellosis in Kangaroos

Two cases of Salmonellosis in hand-reared Western Grey Kangaroos have recently been diagnosed. In one case 2 joeys developed sudden disease characterised in one by diarrhoea and in another by dyspnoea. Both had no evidence of enteritis grossly or microscopically but both had focal hepatic necrosis and inflammation and focal necrosis of the muscularis of the small intestine. The animal with dyspnoea had a suppurative pneumonia. <u>S. typhimurium</u> was isolated in heavy growth from liver, lymph nodes, gut and lung. The other case concerned a Joey that suddenly developed diarrhoea and died within 21 hours. There were no gross lesions but histological lesions were identical to those above. Salmonella were not cultured from gut or liver but a heavy growth of <u>S. fremantle</u> was cultured from mesenteric lymph node. Three other joeys in the group were excreting Salmonella sp. In faeces.

## South Perth, Department of Agriculture - J. Dickson

## Iatrogenic Myopathy

During the course of experimental work related to Vitamin E associated myopathies, some control animals were injected with 2000 IU of Vitamin E (5ml) of a commercially available preparation into the quadriceps. Four months later when the animals were killed, lesions caused by fat and fibrous tissue replacement were found in the muscles. Lesions measured 6 x-2 x 2cms and would be extensive enough to cause downgrading of carcass meat. Further work has shown that the Arachis oil base does not -cause the damage.

# Poison Sedge

A heavy mortality occurred in a flock of 3,500 adult sheep about 200 km north of Perth. The mob were drenched and put into a 1,000 acre paddock which had some bush and natural pasture. They were put in on a Thursday and when inspected on the Monday only 1,500 could be mustered. The plant <u>Schoenus</u> asperocarpus causes a massive fluid effusion into the thoracic cavity. The active principle is not known.

In this case a closely related plant species <u>Schoenus rigens</u> was also available and had been eaten. Plant material <u>S. rigens picked one month later failed to produce evidence of toxicity when fed to two sheep, but it could well be that the toxic phase had passed.</u>

# Facial Eczema in Mid-Winter

An interesting case occurred in a flock of 60 mature Poll Dorset ewes. Five died and 25 were sick. It was thought that they were photosensitised by eating <u>Erodium</u> sp. However, severe liver changes suggested pithomyces toxicity. It was found that the hay being fed had high pithomyces spore counts.

# Poultry

An outbreak of fowl pox occurred in unvaccinated layers. Lesions consisted of necrotic cores in the larynx and cranial trachea. There were no skin lesions. Diagnosis was based on recovery of virus and demonstration of inclusions. The birds were presented as a "sudden death" problem.

<u>Capillaria contorta</u> was found in the oesophagus of ducks submitted from Kununurra. The birds, from a flock of 30, had anaemia, diarrhoea and weight loss. Gross lesions were not easy to detect but consisted of velvety thickening and transverse folding of the mucosa. Numerous parasites were present in the mucosa. Although parasitism was marked, it is not clear whether the clinical disease was entirely due to the parasites.

# Albany - Barry Richards

# Histophilus ovis/Haemophilus somnus arthritis in lambs

A severe outbreak of polyarthritis occurred in cross-bred lambs at South Stirlings in July. Approximately 90/1400 lambs died prior to marking. Lambs 3-4 weeks old showed lameness, weight loss, depression and swollen limb joints and usually died in 1-3 days.

Typical necropsy findings included fibrinopurulent arthritis affecting mainly carpus, elbow, strifle and tarsus joints. Some lambs had numerous 1-2cm diameter abscesses in the myocardium and-occasionally larger (1-2cm diameter) abscesses were found in various skeletal muscle sites. The thymus gland and lymph nodes (other than those draining affected joints) were variably atrophic.

The only organism cultured from joints and abscesses was a pleomorphic gram negative rod which was subsequently identified as <u>Histophilus ovis/Haemophilus somnus</u> by the Victorian Department of Agriculture's Regional Veterinary Laboratory at Hamilton.

The organism was first isolated in W.A. from the mastitic lesion of a dead ewe by D.S. Roberts who suggested the name <u>Histophilus ovis</u> (Aust. Vet. J. <u>32</u> :330-332, 1956). However, the organism has not been associated with significant animal disease in W.A. since that time. In view of the high morbidity and mortality, one wonders if this organism can cause immunosuppression.

# SOUTH AUSTRALIA - Prepared by Peter Phillips

## Diarrhoea in Sheep

The late winter, early spring rains have brought with them many cases of scouring in sheep. These have been mainly parasitological, with <u>Haemonchus</u>, <u>Ostertagia</u>, <u>Trichostrongylus</u> and coccidia being the principal offenders. Other causes have not been as easy to identify, although sudden abundance of very lush pastures in itself no doubt contributed.

The possibility of colitis due to a <u>Campylobacter</u>-like organism in sheep (Stephens et al., A.V.J. (1984), 61 (6):183) has been investigated by Mike Hindmarsh and Tony Belfield at the south East Regional Laboratory at Stuan. Confirmation or otherwise should be forthcoming soon.

# Outbreak of ILT in South Australia - (Vui Ling Tham)

In July and August this year, ILT was diagnosed in broilers 40 days of age in 3 contract "grow-out" units (situated closely to each other) in the Murray Bridge area, and in units in the Adelaide Hills. Soon after the disease was diagnosed the remaining birds in each of the units were slaughtered.

In the majority of these cases, classical clinical signs and gross lesions were lacking. Histologically there were proliferative and/or erosive lesions in the tracheal mucosa often with quite heavy mononuclear infiltration of the lamina propria, but intranuclear inclusion bodies were hard to detect. Most of these cases were, however, positive by the agar-gel precipitin test using hyperimmune serum.

In September this year an acute classical case of ILT was diagnosed in a small flock of fancy breeds (show type) of chickens in the Adelaide Hills. The lesions were confined to the larynx, trachea and conjunctiva, and distinct intranuclear inclusion bodies, mostly in syncytia, were present in the lesions. There is to date no evidence of connection between this outbreak and those in the broilers.

# Clinical Pathologist Appointment

On September 10th the Veterinary Sciences Division of the department of Agriculture welcomed Dr. Martin Copland to his new appointment as Clinical Pathologist. Martin is indeed a welcome addition to the Division's manpower and we look forward to some ASVP input from him as well.

# QUEENSLAND - Prepared by Roger Kelly

I have not been notified of anything in the way of animal disease outbreaks outside the Brisbane area. It seems that we have in Australia the myelopathy of Rottweilers that was reported by Gamble & Chrisman (Vet. Pathol. <u>21</u>:274-280; 1984). Clinically they are very difficult to distinguish from cervical compressive myelopathy.

We have also seen at the Vet School the pleomorphic syndrome reported from Werribee in the August AVJ in Weimaraners, which ranges from an acute febrile metaphysitis resembling HOD, through relapsing generalised infections of skin and other organs, to stunting and oral ulceration. Neutrophil competence testing is under way.

# TASMANIA - Prepared by Barry Munday

# "False" Oedema Disease in Weaner Pigs

A consistent syndrome has been seen in weaner pigs from a local piggery. Pigs are found dead or occasionally are noted to be listless before dying. Main necropsy findings have been subcutaneous, intramuscular and perirenal oedema. Most pigs showed congestion of, and gas formation within, the terminal small intestine and colon.

Haemolytic <u>E. coli</u> and <u>Cl. welchii</u> Type C have not been isolated from the intestines. Liver Vitamin E levels have been normal, but selenium levels have been 1/3 of those found six months earlier. Deaths have decreased, but not ceased, since selenium has been added to the diet.

Main histological finding has been thrombi (disseminated intravascular coagulopathy, microagiopathy) in capillaries of the lungs, myocardium, glomeruli and intestinal wall. There also was thrombosis of the mesenteric veins and invasion of the gut wall by bacteria; "redgut" in this case seemed to be secondary to damage to blood vessels.

# VICTORIA - Prepared by - Robert.Jones

# Veterinary Research Institute - (Peter Hooper)

## Severe Hepatic Parasitism in a Primate

A 6 month old Mandrill at the Melbourne Zoo was found cold and weak one winter morning and failed to respond to resuscitation.

At autopsy the liver was lemon-yellow and diffusely mottled as though the lobules were irregular in size, reflecting a pattern of severe cirrhosis. The appearance of the severe hepatic disease was of concern because, in spite of appropriate personal precautions, we are somewhat nervous when autopsying primates with hepatitis and/or encephalitis.

Histopathology, however, revealed a spectacular infestation through the liver, of a nematode parasite and its operculate eggs, accompanied by a chronic inflammatory reaction. We identified the nematode as <u>Capillaria hepatica</u> and this was confirmed by Jack Arundel at Werribee. This is a liver threadworm common in wild rodents which can affect a variety of other species. It has a curious life history in that its eggs in the liver tissue will only hatch after the liver has been eaten by another host or has decomposed.

# Hamilton Regional Veterinary Laboratory - (Cor Lenghaus)

## Abortion and Perinatal Deaths in Lambs

The mild conditions which prevailed during the lambing season meant that few lambs died from cold stress after birth. In several flocks, investigations into the cause of a low lambing percentage revealed high titres to <u>Leptospira hardjo</u> (>1:1024).

A number of near-term, dead lambs were received in which the only significant findings were small (<100u) focal areas of mineralization and associated malacia in the brain. These changes were usually in the cerebral hemispheres rather than in the base of the brain or cerebellum. There was similar mineralization in the placenta. We regard these lesions as consistent with Toxoplasmosis, although unequivocal organisms have been difficult to demonstrate histologically, and <u>Toxoplasma</u> titres in affected ewes have generally been low (<1:64), with sporadic titres of 1:256 recorded. We first recognised this syndrome 2 years ago and it seems to have become more common since.

Ten of the first 35 lambs born in a flock of 60 Dorset Horn ewes were either unable to rise after birth or walked with a very deliberate, unsteady ("drunken") gait. The only gross abnormalities detected related to the brain, where there was marked under development of the gyri and sulci of the cerebral cortex. There was a moderate hydrocephalus and the cerebellum was very small. Viruses were not isolated from any tissues examined. Two lambs had HI titres of 1:40 and 1:160 for Ross River virus. Twelve of 20 ewes similarly had titres of up to 1:160. There was no serological evidence of infection with Border

10.

Disease/Mucosal Disease, Akabane, Kunjin, Sindbis or Murray Valley Encephalitis Viruses in lamb or ewe sera examined. The significance of the Ross River virus titres is unknown.

# Veterinary Clinical Centre, Werribee - Susan Friend/Neill Sullivan/Karl Harrigan

# Nasal Neoplasms

Recently we have observed an increase in the number of canine nasal neoplasms. In 1983, 5 nasal tumors were reported in dogs; however, over the last 4 months 7 tumors including an osteogenic sarcoma, osteoma, anaplastic sarcoma, schwannoma and nasal adenocarcinomas (3) were found in the noses of dogs of variable breeds, ranging in age from 5 months to 12 years (mean 6 years). It may be a reflection of the number of referral cases the clinic receives. In Saskatoon nasal neoplasms were uncommon. What is the experience of pathologists in other diagnostic laboratories and veterinary schools? The clinicians here are also interested in finding out about the incidence of these tumors in other places.

# Mortality in Little Penguins

Moribund and dead Little Penguins (<u>Eudyptula minor</u>) are frequently found, sometimes in large numbers, on the ocean beaches of southern Australia. Most of these seem to be immature juvenile birds and death appears to result from a combination of starvation and heavy parasitism. Renal and intestinal coccidia, liver fluke and gastro-intestinal round-worm and cestode infestations all appear to be of significance. Gastric roundworm infestations are frequently associated with severe mucosal ulceration with substantial bleeding resulting in melaena.

In July 1984 large numbers of sick and dead Little Penguins were found on the shores of Port Phillip Bay. Examination of these indicated that they were not emaciated nor heavily parasitized. Death seemed to be the result of severe nephrosis, possibly a consequence of heavy metal intoxication. Though both cadmium and mercury have been detected in affected kidneys, their significance to date is inconclusive -as similar levels of the metals have been found in other penguins unaffected by nephrosis.

Further mortality has occurred but later submissions of dead Port Phillip Bay penguins has suggested that they have been mature birds and that death was primarily the result of starvation. There has been no further evidence of toxic nephrosis. Reduced food availability is probably the main cause of this starvation. Simultaneously the numbers of penguins coming ashore at the Phillip Island colony is extremely low suggesting a movement of the population away from the area perhaps in search of their preferred food supply.

# Benalla Regional Veterinary Laboratory - Geoff Mitchell/John Humphrey/Robert Rahaley

# Porcine Hyperostosis Congenita

This is a lethal autosomal recessive in pigs resulting in stillborn piglets or early perinatal death. The condition is characterised by firm swellings and rigidity of principally the front limbs of the piglets. Incision in the radio-ulnar area shows increased thickness of the cortical bone and replacement of normal muscle by oedematous connective tissue. Histologically there is periosteal proliferation. We have seen one affected litter recently from a father/daughter mating.

## Chilodonellosis in Native Australian Fish

In recent months outbreaks of chilodonellosis have been diagnosed in Murray cod and in golden perch. The disease is caused by the protozoan ectoparasite <u>Chilodonella sp.</u>, of which as least 2 species are believed to exist. Commonly, losses associated with this parasite occur in winter months when water temperatures are low, typically 5 to 10°c.

The protozoa invade the gill lamellae primarily and also the skin and fins, resulting in considerable irritation. Increased mucous production on the gills, swimming near the surface and rapid deaths may occur. Moderate to severe lamellar epithelial hyperplasia with fusion of secondary lamellae are seen histologically, together with large numbers of chilodonella on gills and skin. The organisms may be readily identified by microscopic examination of gill smears taken from moribund or freshly dead fish. Examination of other than freshly dead fish may be unrewarding, as the protozoa rapidly leave the dead host.

In contrast to some other protozoan infections of fish, chilodonellosis is readily treated. Fish have successfully been treated in ponds by the addition of 15-20 mg/1 of formalin. Immersion in a dip of 166-200 mg/1 of formalin for one hour, and in 4,000-30,000 mg/1 of sodium chloride is also successful.

## Pituitary Tumour in a Budgerigar

An adult female budgerigar was noticed anorectic and lethargic for 4 days before death. A post mortem examination did not show any gross abnormalities but microscopic examination of the brain revealed infiltration of the hypothalamus by proliferating, neoplastic, pituitary chromophobe cells. Some investigators have reported a high incidence of pituitary tumours, particularly those of chromophobe origin, in budgerigars. In one report of 20 such tumours (Cancer Res. 1954:14,237), the average age of the affected birds was 2.5 years. Clinical signs included exopthalmia, somnolence, poluria, polydipsia, convulsions and obesity.

# Bendigo Regional Veterinary Laboratory - (Rod Badman)

## Erysipelas

Outbreaks of Erysipelas have been diagnosed on 5 properties in the past 2 months. Deaths have been recorded in turkeys, pheasants, guinea fowl, chickens and pigs. On all properties the mortalities have occurred over several weeks. Deaths increased during cold weather and heavy rain and may have coincided with increased numbers of plague mice in the shed.

Treatment of the birds either parenterally or via drinking water has been unrewarding, probably because of re-infection from the mice after withdrawal of the treatment.

Attempts to isolate Erysipelas from mice caught in the vicinity of the sheds have proved negative although gram positive Erysipelas-like organisms were present in the livers of some mice.

## 

If you have not paid your 1984-85 membership fees a yellow reminder notice will be attached to this newsletter. Please forward your payment to the treasurer as soon as possible.

# ATLAS OF LYMPH NODE PATHOLOGY IN CATTLE

As a follow up to work undertaken in the Graduate School of Tropical Veterinary Science at James Cook University on 'Correlative lesion-lymph node changes in slaughtered cattle', Phil Ladds is preparing an atlas which should be of value both to abattoir veterinarians and meat inspectors and veterinary pathologists. The initial study was funded by the Australian Meat Research Committee, who have now agreed to fund publication of the (colour) atlas.

Specimens so far examined have originated in north Queensland, and so that the atlas can be truly representative of bovine lymph node lesions seen throughout Australia (and perhaps N.Z.) Phil is keen to obtain additional material (slides, blocks or wet tissues) for study. Ideally a good photograph of the gross lesion is needed but if this is not available, a description of the lesion and provision of material for microscopy - and perhaps photography of the fixed specimen will suffice.

Phil has advised that he will be personally contacting appropriate people in diagnostic and research laboratories and university departments in efforts to make the atlas as complete as possible. However, he would also like to hear directly from anyone who has interesting (? undiagnosed) bovine lymph node lesions or particularly good examples of unusual - or even common - lesions. Where requested, Phil will be happy to supply a 'second opinion' on any lesions sent to him, and the source of any material incorporated into the atlas will be acknowledged. Phil's address is –

C/- Graduate School of Tropical Veterinary Science, James Cook University of North Queensland, Townsville, Qld. 4811 Telephone (077) 814428.