



Dinah Smith has resigned from the Veterinary Research Station, Glenfield to go to the Table Talk Poultry Diagnostic Laboratory, Marsden Park. Dick Watson has left the Tasmanian Department of Agriculture to join Rochedale Hatchery in Queensland. Caroline Ash has left Inghams Enterprises. Russell Brown has left C.S.L. Roger Chubb has taken up his new appointment at the Department of Microbiology at the University of New England. Steve Dunn will shortly be leaving the Veterinary Research Station, Glenfield and become Veterinary Officer, Grafton, New South Wales.

New members include Dr. Eugene Chen of Pitman-Moore, Dr. R.M. Cobb of Inghams Enterprises and Dr. Rod Watkins of the Victorian Department of Agriculture.

A NEW BOOK called "A Manual of Poultry Diseases" written by B.S. Bains is now on the market and available from Roche Products, 4 Inman Road, Dee Why 2099 for \$14.

"Withholding Periods, Maximum Residue Limits and Poison Schedules for Agriculture and Veterinary Chemicals"

A document No. PB 376 with the above title has been produced in its third edition by the pesticides section, Department of Primary Industry Canberra and copies can be obtained from that address. This is a full document reflecting the recommendations current at the 1st January, 1980. While these recommendations are not all mandatory, it should be noted that the recommendations place an ethical obligation on veterinarians to follow these in practice. A list of those chemicals associated with use in poultry is being drawn up and will be circulated to members in due course, but as many members have interests beyond poultry it is suggested that you obtain your own copy.

Spelderholt, Symposia, Apeldoorn Holland

To celebrate the 60th Anniversary of the Spelderholt Institute for Poultry Research 3 symposia will be organised - 5th symposium on quality of poultry meat - 1st symposium on egg quality - Jubilee symposium on "The Worlds Poultry Production : Where and How?" These will all be held from the 17th to the 23rd May, 1981 at Apeldoorn in the Netherlands. Enquiries should be sent to the Spelderholt Institute for Poultry Research, Spelderholt, 7361 EA Beedbergen, The Netherlands. The secretary has a copy of the application form and the information notice if anybody is interested.

Mycoplasma in Pigeons

Norm Gerraty, one of our members has forwarded a reference by Sinclair, D.A. from Veterinary Record May 31st, 1980 with a description of an infectious respiratory disease of pigeons from which Mycoplasma of the avian type L. were isolated. Tiamulin hydrogen fumarate (Dynamutilin:Squibb) 12.5% preparation was administered at 1 ml to 30 ml of drinking water for 28 days with apparent success after failure from a number of other antibiotic treatments.

Avian Pathology Journal

This is the official journal of the World Veterinary Poultry Association and since it was first published in 1972 it is now established as a leading journal concerned with avian diseases. Publication delay is usually only 6 months and apart from the usual original papers the editors welcome case reports and publish invited reviews on topical subjects about twice yearly. A free specimen copy of the journal will be sent on request. The new subscription rates are:

- . 1980 annual subscription \$20
- . W.V.P.A. members \$12.50 (air mail - extra per annum \$6)
- . 1981 annual subscriptions \$27
- . W.V.P.A. members \$17 (air mail - extra per annum \$12)

Enquiries should go to the Business Manager, C/- Houghton Poultry Research Station, Houghton, Huntingdon, Cambs. P.E. 172EA, England.

### C.S.L. Withdraws from Avian Virus Vaccine Production

Commonwealth Serum Laboratories have notified that they intend to cease further manufacture of the two avian virus vaccine at present available - fowl pox vaccine living (attenuated cell culture) and infectious bronchitis vaccine (living).

### The Animal Welfare Movement

An interestingly balanced article on this subject by Hurnik J.F. in "Poultry Digest" April, 1980 page 170 includes the following comments:

"The search for technology which will minimise discomfort and potential stress and, at the same time, maximise production is perhaps the most realistic way to express concern for the welfare of farm animals."

"The key welfare issues are:

1. Adequate fresh air.
2. Sufficient food of a type to keep the animal in good health.
3. Fresh water readily accessible.
4. Avoidance of mutilation of benefit only to the farmer, or to which there are reasonable alternatives.
5. Freedom of movement.
6. Comfort of immediate environment (e.g. freedom from draughts).
7. Freedom to follow innate behaviour patterns except where denial cannot reasonably be avoided."

"From an animal welfare viewpoint, it is not known how much the potential stress of confinement is counter-balanced by injury prevention, improved disease control and, thus a better state of animal health."

An Association like ours has a lot to contribute to the public discussion of the animal welfare issue emphasising the improvements in animal health, which must give better animal welfare, which result from intensive housing when it is carried out properly.

### EDS 76 Eradication?

Knowing that EDS 76 is endemic in chickens in Australia - do you think eradication is a viable proposition?

Does the vaccine prevent egg transmission?

How does it spread? How likely is it to spread?

Should we vaccinate susceptible flocks?

### Treatment of Tapeworm in Finches

The District Veterinary Officer, Newcastle (Jim Macadam) reports that he had success in treating an outbreak of tapeworm causing mortality in finches with the product Droncit (praziquantel). 20mg/kg was the dose used. 1 tablet (50 mg) was added to 250 mls drinking water for 8 hours following overnight deprivation.

### Droncit for Tapeworms in Poultry

An earlier newsletter, No. 2 of September, 1978 referred to the anticestodal activity of Droncit (praziquantel) as follows:

"Company literature put out by Bayer, indicates that this compound is effective against cestodes of geese, ducks and chickens at doses from 10 to 20 mg per kg body weight when administered in the form of bran and bread. The drug was up to 100% efficient against a number of species of cestodes and was effective against juvenile, pre-adult and adult stages."

### Peptide Proteins of Newcastle Disease Viruses

A recent article on "Proteins of Newcastle Disease Virus. A Comparison by partial protease digestion among the strains of different pathogenicity", by Nagai Y. et al (1980) in Virology 102:463 indicates that the Ulster and Australian strains of Newcastle Disease virus have a distinctive peptide pattern which may be useful in the event of an outbreak to distinguish between pathogenic and local strains.

### Malabsorption Syndrome

This name seems to have been coined by veterinarians involved in the antibiotic growth promotion manufacturing companies in the United \*

States many years ago to describe and give some respectability to a condition which could also be described as a growth promotant responsive syndrome. The term is a useful one to describe conditions in which the ration appears to have an adequate level of all nutrients but the birds suffer from what appears to be a nutritional deficiency. As rations become more finely tuned to the bird's needs and computers provide least cost formulations, it is important for veterinarians to keep an eye out for symptoms of deficiencies which could result from a decrease in the feed intake or some malabsorption condition in the intestine leading to marginal deficiencies. A number of veterinarians are investigating soft bone problems in broilers and egg shell weakness problems in layers at the present time and the possibility of malabsorption or marginal feed levels or metabolic failure should be kept in mind in relation to Vitamin D, calcium and phosphorus interactions.

Bone problems resulting from nutritional deficiency due to an early reo-virus diarrhoea is mentioned in a reference in Poultry Digest, November\*, 1979 page 646 in an article quoting van der Heide, L. of the University of Connecticut.

#### Egg Drops - Again

In a letter to the Editor, McPherson, I, Veterinary Record (1980) 106:160, reports on a survey of the British Poultry Breeders and Hatcheries Association for evidence of the involvement of EDS 76. This report indicates that about 63% of 213 flocks surveyed had egg production problems and about 82% of these were problems which occurred at peak production. 38% of the egg production problems were diagnosed as EDS 76. Of this 38%, 88% were supported by laboratory diagnosis.

Of the 203 flocks surveyed 49% were vaccinated against EDS 76 and 20% of these had EDS 76 problems diagnosed with laboratory support. It is pointed out that many of these flocks were vaccinated in the face of egg production drop problems and thus the significance cannot be interpreted. All these figures apply to broiler breeding flocks but members will know from other reports in the literature that the disease has been diagnosed in layer flocks as well. The importance of keeping an eye on the spread of this virus in Australia is emphasised.

### Disease in Budgerigars

This Australian bird has become a common pet in many countries and Baker, J.R. (1980) Veterinary Record 106:10, reports on autopsy of 257 budgerigars. 92 of these birds had neoplasms and the remainder had an amazing variety of conditions which are well documented. The article is an example of the value of the old system of collecting statistics as this information could be valuable to a practitioner involved in pet bird work.

### Another Emerging Disease: This Time, Respiratory Disease in Turkeys in Israel

Litkind, M.A. et al (1979) in Veterinary Record 105:577 report on the isolation of a Yucaipa-like paramyxovirus from epizootics of a respiratory disease in turkeys in Israel. It is thought that the virus is the cause of the respiratory condition and further studies are progressing.

### Infectious Bronchitis Serum Neutralisation Rapid Tests

Associate Professor Rob Cumming at the University of New England has an IB virus (AEL strain) which will kill embryos within 48 hours and thus is very useful for conducting SN tests quickly and economically. He is prepared to make this virus available to interested people.

### Spray vaccine for I.L.T.?

The following is extracted from a letter from Dr. Jim Edgar of the Western Australian Department of Agriculture.

"Re the above subject in your A.V.P.A. Newsletter of May, 1980 - we would like your readers to know:

In its research W.A. has come to the conclusion that the best and most effective vaccination against ILT is the individual eye drop method at 7-10 days of age. Eye drop at day-old was found too pathogenic as up to 2% mortality occurred.

We no longer advocate water vaccination. In our experience it creates more deaths from intratracheal reaction than it prevents.

We have researched the cost of labour associated with the intraocular method. With wages at 1978 rates it was found an economical proposition in 1978 to employ 4 persons - in this case they were women - to vaccinate 16,000 per day.

It takes 5 hours for 4 persons (= 20 hours) to vaccinate 16,000 chicks. Because of the fatigue factor only half a day (5 hours) is worked. The 5 hours includes the setting-up of frames to control and corral the chicks and tea breaks. W.A. believes in applying EFFORT to the task.

We have found the TURBAIR vaccination of two week-old birds effective against challenge with virulent virus by the intratracheal route UNDER EXPERIMENTAL CONDITIONS. It is emphasised we have not used TURBAIR vaccination UNDER FIELD CONDITIONS. However, it is considered the TURBAIR vaccination method could be extremely useful in the face of an ILT outbreak in older birds i.e. birds not less than 2 weeks old.

Also, I bring to your notice that a publication in the A.V.J. will shortly be made entitled "A Laboratory Study of Spray Vaccination with ILT Virus" by Robertson, Purcell and Clarke.

Regarding experimentation with a coarse low velocity spray that could be administered in the hatchery to day old chicks, again we have no need for this exercise because of the excellent situation pertaining at present in W.A. with a nil incidence of ILT. We now have fewer but bigger and better managed broiler farms and the layer side of the industry has been well protected by an ILT vaccination policy bordering on an almost blanket coverage. Such vaccination takes place on the farm at 7-10 days of age in conjunction with eye drop vaccination of IB virus. There is therefore no question of ILT vaccine virus floating around a hatchery."

#### Genetic Selection for Antibody Production and Resistance to Infectious Diseases

The following abstract from an article by Gross, W.G. et al (1980) in Poultry Science 59:205 is self explanatory:

" A line of chickens selected for ability to produce high antibody titers to sheep red blood cells exhibited stronger antibody to Newcastle disease, was more resistant to Mycoplasma gallisepticum, Eimeria necatrix, a splenomegaly virus, and feather mites and less resistant to Escherichia coli and Staphylococcus aureus infection than

a line selected for a lack of ability to produce antibody titers. A line of chickens selected for nonpersistence of antibody titers to sheep red blood cells was relatively more susceptible to all infectious agents tested than a line selected for persistence of antibody titers."

#### Leg Weakness and the Importance of Having a Veterinarian in Research Teams

Two recent papers papers Hulan H.W. et al (1980) Poultry Science 59:748 and Plavnik I. and Scott M.L. (1980) Poultry Science 59:459 indicate the importance of veterinary involvement in trials. Both report on incidence of leg weakness without adequately describing the type of leg weakness involved.

#### Nutritional By-Product From Poultry Processing Waste Water

An article by Shih, J.C.H. and Kozink M.B. (1980) Poultry Science, 59:247 indicates that the treatment of waste water from poultry processing plant by ultra filtration may lead to the harvesting of a product with nutritional value. It will also help to clean up the waste water for re-use under certain conditions and would certainly lower the contamination level of the water which has to be disposed of from the plant.

#### Sanitiser Fogging of Hatchers Improves Broiler Performance

Mowry, D.J. et al (1980) Poultry Science 59:714 indicates that using a sanitiser for fogging hatchers at 12 hour intervals during the hatching period causes significant reductions in total air-borne bacteria and Staphylococcus aureus counts while E. coli counts were not significantly affected. Growth trials on 150 chicks from each hatcher from each of 4 trials showed 50 day feed efficiency and 50 day male body weights were significantly improved in the chicks hatched in the fogged hatcher.