



NEWS ITEMS

- . Paul Macqueen has left Tegels and is now with Smith Kline.
- . David Kingston has left Inghams and is now with Upjohn.
- . Bronwyn Runge is leaving the Queensland Department to have a baby.
- . Robyn Wells has left Seven Hills to become Veterinary Officer (Cumberland) and has been replaced by John Thorpe who was previously Veterinary Officer, Meat Inspection Services, Homebush Abattoir.
- . Balkar Bains has left Queensland and returned to Sydney to rejoin Roche.
- . Ben Wells has left Elanco to join Inghams.
- . Roger Chubb has left Pitman-Moore to take up a lecturing position at the University of New England.
- . Don Dennett has left CSIRO and is in a temporary position in Melbourne University and intends to set up his own business.
- . Larry Wanstall has resigned from Rochedale Poultry.
- . Margaret MacKenzie has had another child, this time a son.

New Poultry Veterinarian at Glenfield

Dr. Garry Cross, B.V.Sc., Ph.D. has recently been appointed to Clive Jackson's old position at Glenfield. Garry has not worked with poultry before, but expects to adapt himself to the poultry pathology position quickly. His Ph.D. work was in Erysipelas of Pigs under the supervision of Professor Edwards at Sydney University. He should be busy early in investigating the EDS 76 situation, and also a teno-synovitis condition in which Glenfield is looking for Mycoplasma synoviae or reovirus.

International Award to Dr. McFerran

The British Poultry Breeders and Hatcheries Association, through an Award Committee, has decided to make the Tom Newman Memorial International Award to Dr. J.B. McFerran of the Department of Agriculture Veterinary Research Laboratory, Belfast, Northern Ireland, for his outstanding research contribution on recognising, describing and determining the etiology of a new condition now described as Egg Drop Syndrome - 1976 (EDS76). Members who heard Dr. McFerran during his visit to Australia last year will be pleased that his work has been recognised in this manner.

EDS76 Virus in Australian Chickens

Steggles have recently advised that they have isolated a virus which appears to be antigenically similar to the EDS76 virus isolated by Dr. McFerran in Northern Ireland. They were investigating drops in egg production, and sent sera to Dr. McFerran who reported that they were positive. Subsequently, Gordon Firth has isolated an organism which looks typical on electron microscopy.

Earlier serum samples sent to Houghton Poultry Research Station by Glenfield had indicated the presence of positive antibodies in commercial and wild duck sera from Australian birds. So far there is no evidence of the presence of this organism in any of the SPF flock sera which have been tested, but further testing will be undertaken as soon as possible, and also other breeding organisations will be tested. Contact between ducklings and chickens in a hatchery is known to have occurred, and it is considered to be a likely source of transmission to the chickens.

CONFERENCES

Avian Immunology Conference

The 16th Poultry Science Symposium organised by the Joint Standing Committee of British Poultry Science Ltd., and World Poultry Science Association Ltd., is being held from 25th-27th September, 1980 at Churchill College, Cambridge, England. The Editor has a copy of the programme, and it looks like the best opportunity for many years to get together with all the leaders in the field of avian immunology.

1980 South Pacific Poultry Science Convention

This convention is being held in Auckland, New Zealand from 13th-17th October. The Secretary has received a letter from R.W. Stevenson advising of the Convention, and inviting speakers and delegates to attend. Papers should be sent in summary form to O.P. Ryan, Post Office Box 514, Auckland, as soon as possible. More details are available from the Secretary.

Aviary and Cage Bird Course

Make a note in your diary that 16th-20th February, 1981 at the Taronga Zoo the Post Graduate Committee in Veterinary Science of the University of Sydney is holding this course.

Enhanced Virulence of Virus by Passage in Target Species

Three duck virus hepatitis vaccines of different origin were passaged by Woolcock P.R. & Crighton G.W. (1979) Vet.Rec. 105:30 through groups of two day old ducklings known to be susceptible to the disease. Six passages were undertaken, and in each case the vaccine virus became pathogenic (reversion to virulence) within two to three passages. This is a warning that some of the complex tests required for avian virus vaccines in Australia may be well founded.

Newcastle Disease in Irian Jaya

A letter from the Chief, Division of Animal Health in N.S.W. was included in a recent mailing to A.V.P.A. members indicating that this disease in the velogenic form has been found on the South Coast of Irian Jaya recently.

Rotaviruses from Turkeys and Chickens

In a report by McNulty et al in Archiv Virol 61:1-2,13, rotaviruses were detected by electron microscopy in the faeces of turkey poults and broiler chickens with diarrhoea. Trypsin treatment of the virus and cells was necessary before growth in cell cultures occurred. These avian rotaviruses are related to mammalian ones as shown by immunofluorescence studies. Antibodies to the rotavirus were widespread in sera collected from turkeys, chickens and ducks.

Pasteurella from Weeping Eye

A recent investigation at Glenfield led to the isolation of *Pasteurella multocida* from swabs taken from the conjunctiva of an adult hen which showed severe weeping from the eye. Caseous exudate was present under the third eyelid.

Electrical Stunning of Broilers and Bleed-Out

An article in *Poultry International*, December 1979, Page 38, examines the optimum arrangements for electrical stunning to produce the best bleed-out. It is understood that a number of processors have had difficulties with retention of blood recently, and some of the practical people in the industry may find benefit from looking into the stunning methods.

Bibliography of References to Avian Cholera

The Secretary has received a copy of this bibliography from the United States Department of the Interior - Fish & Wildlife Service, and it could be made available to interested members, but should be returned to the Secretary.

Spray Vaccination for I.L.T.?

While the vaccine virus used is probably different from that used in Australia, an article by Rountree, J.L. in *Poultry Digest* for June, 1979, Page 324, indicates that there is some hope for this method of vaccination. It would be interesting to know whether work which has been underway in Western Australia has now reached the point of application in the field.

Psittacosis Again

The subject of Psittacosis came up at a recent meeting of the Poultry Diseases Sub-Committee, and it was found that the control procedures differ from one State to another. Investigations into these differences are being undertaken officially, but it would be appreciated if any members could give indications of their experiences with the disease in Australia, and especially if they could indicate methods of treatment which have been successfully used. Does anybody know details of the method of preparation of aureomycin treated millet seed or any other method of administering in the feed to cage birds.

Control of Salmonella in Feed

An article by Vanderwal in World's Poultry Science Journal 1979 35:2:79, indicates that proprionic acid and heat treatment of feed stuffs may be useful in Salmonella control. The pharmaceutical company BASF is undertaking development of the propriogenic acid treatment in Europe, and has reported favourable results in the control of Salmonella in livestock. They claim that the proprionic acid treatment of the feed has an action in the intestine as well as in the feed.

Poultry Processing Legislation

Following the first reading speech introducing the Poultry Processing (Amendment) Bill, 1979 in the N.S.W. Parliament, this document is now available for industry consideration and the second reading will not be held until August 1980.

Lymphocytes, Macrophages & Immunity

The following quotation, (which shall be anonymous because I have lost the reference) may serve to clarify or confuse the immunology picture.

"Different organisms are susceptible to elimination by different mechanisms, but the common factor in all these cases is a specific response to microbial antigens by lymphocytes - the only cells known which can permanently alter their reactivity towards individual antigens, and therefore the repository of immunological 'memory'. Lymphocytes are of two main types, T (thymus dependent) and B. The B lymphocytes synthesize and secrete antibody, and this is the principal element ensuring resistance against bacterial and viral infections; sometimes it acts directly to block the entry of the organisms or neutralize a toxin, but often it causes its damage indirectly via complement or a phagocytic or cytotoxic cell. T cells are now divided into subpopulations: some stimulate B cells to make antibody ('helper cells'); others have the opposite effect ('suppressor cells'); a third type can directly kill foreign or altered cells ('cytotoxic T cells'); and a fourth type is instrumental in attracting and activating non-lymphoid cells, such as monocytes, macrophages, or eosinophils so that, though themselves non-specific in their reaction, these are concentrated in the vicinity of the invading organism, where they carry out 'cell-mediated immunity.'

Cytotoxic T cells are thought to be responsible for killing virus-infected cells, and cell-mediated immunity is especially effective against intracellular bacteria, such as those responsible for tuberculosis, brucellosis, and typhoid. B cells, and probably all types of T cells, can give rise to memory cells, an expanded and modified population responsible for the well known secondary response. To complete the picture, one must mention the macrophage, which as well as functioning as an effector cell in cell-mediated immunity (in granuloma formation, for example) also plays a vital part in triggering both B and T lymphocytes and even, in some circumstances, suppressing them."

Immunology - What It Means

Another good summary article on Immunology appeared in Poultry International, December 1979, Page 106.

Mites

Mites are a problem. Devaney (1978) Poultry Science 57:1189 reports that egg production in hens infested with Northern Fowl Mite was 15% lower than in non-infested controls. In another article Thornberry, in Poultry Digest, March 1979 p166 stresses the importance of frequent re-examination of Northern Fowl Mite infected birds. He recommends a minimum of 2 and often more applications of insecticide at intervals of 10-12 days. He also recommends frequent examination of individual birds and by checking eggs shortly after laying, as the mites can easily be seen on these egg surfaces. Infestation is frequently confined to a fairly localised area in a shed. He stresses the importance of rodents and equipment in addition to wild birds as a source of infestation. He recommends dust or sprays of carbaryl (Selvin), malathion, naled (Dibrom), Rabon or coumaphos (Co-ral). He states that insecticide resistance is rare and apparent failures are usually a people problem.

Necrotic Enteritis Response to Selenium

A small note by Mapsfield in Poultry Digest of March, 1979, p174 suggest that Necrotic Enteritis may respond to selenium administration. It would be interesting to know whether anybody has evidence on this in Australia.

Turkey Respiratory Disease - Cryptosporidiosis

Ranck and Hoerr in Poultry Digest, March, 1979 p176 describe a respiratory disease of turkeys with watery eyes, swollen sinuses, soiled nostrils, coughing and sneezing in which cryptosporidia are found in tracheal scrapings and in sinus exudate. Oocysts, schizonts and gametes, which are round and approximately the diameter of the nuclei of red blood cells are seen. Treatment with sulphadimethoxine seems to have produced a response in flocks, but the response has not been favourable unless the flock is removed from the contaminated house. Perhaps pathologists should watch for such organisms in some other respiratory diseases.

Rickets

Two papers by Itakura et al in Avian Pathology 1978, 7:491 and 515, refer to the pathology of an experimental vitamin D deficiency rickets in growing chickens. The first paper describes bone pathology and the second describes parathyroid gland pathology.

Code of Practice for Laboratory Animals

A document entitled "Code of Practice for the Care and Use of Animals for Research in Australia", has been published by the Australian Government Publishing Service. It was produced by the National Health and Medical Research Council in association with CSIRO and indicates guidelines for conduct of experiments and other matters related to laboratory animals or animals used for experimental purposes. Copies are available from the National Health and Medical Research Council, Department of Health, Canberra, A.C.T.

Deep Pectoral Myopathy (Oregon Disease)

An interesting article by Siller, W.G. et al in Avian Pathology 8:301 (1979) gives more information on this condition which occurs in turkeys and broilers showing that experimentally induced myopathy can be prevented by surgical incision of the fascia which constricts the muscle involved. It is suggested that the osteofascial compartment which prevents the normal enlargement of exercised muscle, is responsible for the development of the myopathy. Siller & Wight (Avian Pathology, 1978, 7:583) describe the pathology of the condition.

Heat Stress Improves Antibody Titres

Heller, E.D. et al in Avian Pathology 8:195 (1959) have demonstrated that heat exposure for two hours at 24,48,72 or 96 hours after immunisation, either with E. coli or sheep red cells, resulted in significantly increased antibody titres.

Salmonella Typhimurium sub-typing

Strains of Salmonella typhimurium vary in a number of ways and phage typing techniques, as well as measurement of antibiotic resistance pattern, have been used. An article by Rowe, B. et al in Veterinary Record (1979) 105:468, reports the occurrence of two phage types with similar antibiotic resistance patterns in the United Kingdom, and subsequent spread to Europe. There are some interesting lessons for Australian poultry veterinarians interested in the spread of Salmonella and the methods of tracking its spread using phage typing and antibiotic resistance patterns. The Veterinary Research Institute in Victoria is undertaking some investigations of phage typing in the poultry industry in the near future.

Old Newspapers for Broiler Litter

An article in Poultry Digest, June 1979 on Page 346 suggests that a use for old newspapers as broiler litter may be possible. The research work is being done at the University of Delaware.

Erysipelas

There are a few references in the literature to the occurrence of this disease in fowls, and at Glenfield the organism concerned was isolated recently from mortality involving adult male and female meat breeders which showed lesions similar to fowl cholera. A causal relationship has not been determined, but the absence of any other organism is suggestive.

Western Australian Reports

Mycoplasma gallisepticum was isolated from cases of airsacculitis in racing pigeons, and some Mycoplasma-like organism were isolated from cases of airsacculitis in Cape Barron Geese.