



Pasteurella haemolytica as a Pathogen

Glenfield recently reported the isolation of this organism in pure culture from liver and lungs of layer pullets ranging from 9-11 weeks of age. The birds had suffered a number of predisposing factors, including a restricted feeding programme, an outbreak of coccidiosis one week previously followed by five days treatment with sulphaquinoxaline, and fowl pox vaccination two days before the mortality commenced. Autopsy showed congestion of the lungs.

Local Value of N.S.W. Agricultural Products 1978/79
(prepared by Division of Marketing & Agricultural Economics,
February, 1980, N.S.W. Department of Agriculture)

Total for Plant Industry products \$1,178 million.
Total for Livestock Industry products \$1,569 million.
Beef \$597 million: Dairy: \$135 million: Sheep and Lambs \$109 million
Wool \$456 million: Pigs \$65 million: Chicken Meat \$136 million:
Eggs \$71 million.

Of these figures poultry products constitute 7.5% of all livestock industry products.

The Latest on R.E.V.

Dr. Beri Sinkovic reports that most of the positive flocks which he has found have a history of exposure to contaminated fowl pox vaccine, but there are a few flocks which he is continuing to investigate which have no such history. He is monitoring two flocks in which there are birds vaccinated with contaminated vaccine housed close to birds which had been vaccinated with clean vaccine. In one case there has been, in seven months, no sign of spread to the non infected flock, while in the other case there is a suspicion of spread in one bird out of twelve tested in

the unexposed pen. This is being followed up and no doubt further reports will become available. Dr. Sinkovic is also investigating the possibility of mosquitoes as a source of spread. So far he has discovered that the virus can be isolated from mosquitoes up to 48 hours after feeding on infected birds, but he has not demonstrated that they re-infect birds. In one experiment the possibility of mosquitoes spreading the organism occurred, although lateral spread could also have been a possibility. More controlled experiments are being carried out.

Duck Plague - Healthy Carriers in Wild Birds

Burgess, E.C. et al in Avian Diseases 24:4:940 (1979) have shown that they could isolate duck plague virus from a number of species of healthy water fowl. Shedding of the virus occurs for up to four years after infection. Many of the birds involved showed the presence of erosions inside the mouth at the openings of the sublingual salivary gland ducts. It would be wise for anybody involved with ducks, either domestic or wild, to keep an eye out of these lesions, and also to keep in mind the possibility of attempting the isolation of the virus from cloacal swabs.

Progress in Competitive Exclusion Work

Snoeyenbos, G.H. et al in Avian Diseases 24:4:904 (1979) indicate a significant shortening of the period of infection occurs when their intestinal microflora are introduced into chickens after a salmonella infection has been established. If this finding can be put into effect in the field, it could have useful implications. The microflora used has been put into SPF chickens and still retains its protective activity.

High Calcium Levels Toxic to Broiler Chicks

Page, R.K. et al in a case report in Avian Diseases 24:4:1055 reports on two cases in which broiler chicks died with nephrosis, renal failure and visceral gout as a result of accidental inclusion of high levels of calcium in the ration.

Necrotic Enteritis Prevention

Trescott, J.F. in a research note in Avian Diseases 24:4:1072 indicates control of Necrotic Enteritis caused by Clostridium perfringens Typa A. Avoparcin at 20ppm in the feed and bacitracin at 110ppm prevented the disease which occurred normally in the untreated control birds.

Effect of Growth Promoters on the Excretion of Salmonellae by Infected Birds

A review of the Annual Report of the Houghton Poultry Research Station which appeared in the Veterinary Record, August 11th, 1979, Page 113 & 114, indicates that growth promoting chemicals may induce the excretion of Salmonella organisms in large numbers for long periods. It is suggested that Salmonella colonisation of the alimentary tract occurs as a result of anti-microbial suppression of multiplication of bacterial competitors while Salmonella themselves are not inhibited.

Not all Cancers are Tumors

In a letter to the Editor, Brandford, P.B., Veterinary Record, October 6th, 1979, Page 334 reports the occurrence of squamous cell carcinomas in broiler chickens. The lesions were multiple, erosive squamous cell carcinomas. Only a few birds were discovered, and in them the skin was covered by a series of small, scattered, crater-like skin ulcers approximately 1-3 mm in diameter. The ulcers were yellowish white in colour and possessed slightly raised margins. It would be interesting to know whether any such occurrence has been observed in Australian broilers.

What Happened to Legionnaires' Disease?

You may remember this receiving world headlines in 1976. Since then a previously unrecognised organism named Legionella pneumophila has been isolated. It can be propagated in the yolk sac of embryonic eggs. An antigen prepared from yolk sac can be used for serological tests for the detection of antibodies in sera. There are four distinct serological groups of the organism now recognised. An enthusiastic avian microbiologist

should start looking for this type of organism in poultry. There is some evidence that the organism may originate in older types of Cooling towers in air conditioning systems in older buildings. Perhaps poultry cooling systems could also be involved. The isolation of the organism is summarised in a recent issue of the Welcome Reagents Limited magazine Lablore, 8:8 June, 1979, and this article refers to a paper by Sandford, J.P. in the New England Journal of Medicine (1979) 300:654.

Photo Dynamic Inactivation of Viruses - Possible Vaccine Use

A review article in 8: 8 June, 1979 issue of Welcome Reagents Ltd's magazine Lablore, refers to the fact that many viruses after being mixed with certain photosensitising dyes, (including common dyes such as acriflavine, acridine orange, toluidine blue and methylene blue) and subsequently exposed to light become rapidly inactivated, but undergo very little other damage thus retaining much of their antigenicity. For example, Newcastle disease virus harvested from allantoic fluid showed no loss of ability to produce haemagglutination titres, after exposure to light in the presence of acridine orange at levels which destroyed infectivity completely.

New Strain of Newcastle Disease Vaccine

A brief note by Renaut, F. and Zygraich, N. in Vet.Rec. (1979) 105:104 indicates that the new vaccine strain prepared by the Smith Kline - RIT organisation in Belgium protects as well as the Clone 30 (Nobilis; Intervet) strain, and as well as the parent La Sota strain from which the RIT strain was derived. The post vaccinal reaction as measured by a pathogenicity index showed that both Clone 30 and the RIT strain produced less reaction than the La Sota strain, but that there was more reaction with the Clone 30 strain than with the RIT strain.

Overseas Graduate Looking for a Job

The Secretary has received a letter from Dr. Dinu who is a graduate of the Faculty of Veterinary Medicine, Bucharest, Romania. His qualifications do not permit him to sit for the foreign graduates examination in Australia, but he has experience

in the poultry pathology section of the Central Veterinary Laboratory in Bucharest where he worked for seven years and was involved in diagnoses of viral, bacteriological and parasitic diseases of poultry. Further details are available from the Secretary.

Facial Oedema Associated with eosinophilia

An unusual condition was observed by some P.R.C. workers in Edinburgh during an experiment, and they were fortunate enough to have done eosinophil counts during the condition. The article by Maxwell, M.H. et al in Veterinary Record (1979) 105:232 includes some photographs of the facial oedema. The aetiology is not known, but Australian veterinarians may have seen the condition and should report it.

Necrotic Enteritis in Lorikeets

Members interested in parrot diseases should see the Post Graduate Committee in Veterinary Science's, Control and Therapy article No 953 and 955.

Tapeworms in Shearwaters

The Shearwater or Mutton Bird is frequently found dead on beaches in N.S.W. and recent examination of some birds picked up from a beach had massive numbers of tapeworms causing distension of the small intestine. The worms were submitted to the Veterinary Research Station, Glenfield and were identified as Hymenolepis species.

Acute Myopathy in Young Chicks

Clarke, P.B. in Veterinary Records (1979) 104:483 describes three broiler sheds in which an acute myopathy, identical to that seen in nutritional myopathy in calves and sheep, occurred on the 8th or 9th day of age with symptoms of acute muscular weakness, particularly affecting the legs. Deficiencies of Vitamin E or Selenium could not be demonstrated.

New Zealand News

The New Zealand Government publication Surveillance, (1979) 6:3:9 reports suspected Infectious Bursal Disease as occurring in two poultry flocks in the South Island. It sounds as though colleagues in New Zealand could use some of the vaccines being used on breeders in Australia.

On Page 13 of the same issue of Surveillance, there is a description of canary pox being transmitted by mosquitoes. Apparently, some granulomatous reaction occurs as a result of the direct effect of the mosquito bites as well. Mosquitoes also transmit bird malaria and the note mentions the importance of controlling mosquitoes in canary and finch aviaries. Malaria can kill the birds affected.

Cleaning in Poultry Processing Plants

A reminder to people involved in the cleaning of poultry processing plants in an article by Bensink, J.C. in the C.S.I.R.O. Food Research Quarterly, September 1974, 34:3:49. It is sub-titled "A Guide to the Selection of Detergents and Disinfectants, and How to set up an Effective Cleaning Programme."

Western Australian Reports

Recent reports from the Animal Health Laboratory highlight the presence of cases of Fatty Liver Syndrome which is troubling because the administration of Biotin was thought to be capable of preventing the condition entirely.

Ricketts occurred in broiler chicks and persisted for about three weeks before the ration was corrected. Infectious Bronchitis vaccination seems to have become more effective in the West, and it is thought that day-old administration of I.B. vaccine by spray methods may be responsible for the decrease in the incidence of drops in egg production in adults and a decrease in the incidence of kidney lesions in young birds.