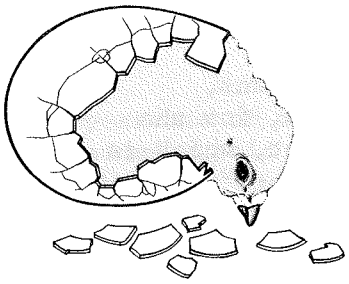

A.V.P.A. NEWSLETTER

No. 11 February 1981

THE BROILERS LAST 48 HOURS

Veterinarians employed by any of the broiler organisations should pay close attention to the article by A. James Farr in Poultry Digestive November 1979 page 638. Not only does this give indication of a lot of the causes of down-grading but also indicates the effective time of feed and water withdrawal on liveweight, yield and other factors. One point given very minor prominence in the article but which could be significant here is that there were no differences found in level of ingestion and faecal contamination. Thus cutting out the feed intake for a lenghty period doesn't diminish the amount of faecal contamination and thus probable Salmonella and other microbiological problems.

8 HOUR FEED WITHDRAWAL ADVISED FOR BROILERS

A study by Leeson S. reported in Canada Poultryman (sorry details not available but Leeson is from the University of Guelph, Ontario, Canada) suggests that withdrawal of feed from broilers for 8 hours and of water for as short a time as possible leads to emptying of the crop and thus reduces pressure of the intestine in order to minimise the rupture and contamination during processing. They do not suggest that it will completely empty the tract. It is claimed that this may be of some benefit in reducing contamination resulting from rupture in the upper end of the tract.

SCALY-LEG TREATMENT

Attention is drawn to the Post-graduate Committee in Veterinary Science Control and Therapy item No. 1035 which refers to the use of the registered product RIGUVON SPOT-ON.

This draws attention to the possible use by veterinarians, although the product is not registered in most states, for the control of scaly-leg. Use 1 ml to 4.5kg of bodyweight, which is approximately 0.01 ml per 30gm. bodyweight. Mix 1ml of "Spot-on" with 15ml DMSO (Dimethyl-sulphoxide) to give it some bulk. Use 0.1ml of this mixture to 30 gram of bird. Use gloves, apply one drop at a time and rub them into the affected area continuing each week until healed. This should be used with care and preferably not issued to the client but administered by the veterinarian as noted above, wearing gloves.

SKIN LEUCOSIS IN AUSTRALIA

John Thorpe of the Poultry Research Station, Seven Hills, recently submitted some of the lesions from a bird which had signs similar to those described in the United States as "Skin Leucosis". Both Gary Cross at the Veterinary Research Station and Clive Jackson have looked at the slides and confirmed that the histopathological signs are consistent with Marek's Disease. Veterinarians should keep an eye out for this form of skin leucosis which actually led to a lot of condemnation of poultry in the United States and is still a major factor despite the use of vaccines. It has also been reported to me that broiler chickens kept beyond 9 weeks of age exhibit up to 1% of lesions of Marek's Disease including paralysis and tumours and it is possible that we may anticipate the occurrence of more highly pathogenic forms of Marek's Disease Virus in Australia just as has occurred in the United States in the past. It would be good for us to be aware of the danger.

PALE BIRD SYNDROME

In the south eastern broiler rearing parts of the United States a condition called Pale Leg or Pale Bird Syndrome has occurred. The conditions described in Poultry Digest, March 1980 page 149 should be kept in mind in differential diagnosis of runting syndromes in Australia. The leg paleness will probably not be seen as we do not have the yellow colour in our broiler birds but other symptoms involved are slow feathering, signs of vitamin A deficiency, mucoid and discoloured droppings, weakness and increased mortality and unevenness of the flock. Tibial dyschondroplasia and brittle bones together with pale and bleached

appearance of viscera, particularly the intestines, and blood stained mucoid intestinal contents are described.

ELECTRON MICROSCOPY FOR VIRAL DIAGNOSIS

An excellent review article appears in the Veterinary Record 106: 22:451 by Gibbs E.P.J. et al (1980).

ADJUVANTS IN THE FUTURE OF VACCINES

An excellent review appears in the Journal of Infectious Diseases 141:1:103 by Edelman R. et al (1980). Those who heard Kevin Fahey speak at the last meeting of the AVPA will appreciate this review of the importance of synthetic adjuvants in future vaccines.

RUPTURE OF DIGITAL FLEXOR TENDONS - REOVIRUS

Jones R. et al (1980) in Veterinary Record 107:180, reports the occurrence of rupture of the digital flexor tendons (the tendons from the back of the shank of the leg) apparently as a result of Avian Reovirus infection. Previous reports of the rupture of the gastrocnemius tendon associated with this infection have been supported by Australian experience. Has any one seen rupture of the digital flexor tendons?

BURSAL DISEASE VIRUS IN TURKEYS

McNulty M.S. et al in Avian Pathology 8:205 (1979) report the apparent recent introduction of bursal disease virus in turkeys in Northern Ireland. The birds were affected with diarrhoea and it is claimed that this is the firt report of natural bursal disease virus infection in Turkeys.

ADENOVIRUS IN TURKEY RESPIRATORY DISEASE

Inclusion bodies typical of adenovirus were widespread in spleen and other tissues of 8 week old turkeys with severe respiratory disease as reported by Cheville N. and Sato S. in Vet. Pathology 14:167 (1977). Inoculation of young turkeys reproduced the disease, particularly when the turkeys were imuno-suppressed.

HAEMORRHAGIC ENTERITIS VIRUS INFECT LAYER AND BROILER BIRDS

Beasley J.L. and Kingston S.T. (1979) in Avian Disease 23:616 reported both virulent and avirulent strains of haemorrhagic enteritis virus to be found to infect both broiler and leghorn chickens by artificial infection. Lesions included enlargement of spleens, presence of inclusion bodies and antibodies and severity varied with the virulence of the strains.

N.Z. POULTRY HEALTH

In New Zealand's Ministry Publications "Surveillance" (1980) 7:1:18 reports on a number of conditions in poultry and also provides a table of percentages of causes of deaths in broiler chickens in New Zealand. The same edition of "Surveillance" also statesthe incidence of isolation of various avian viruses at the Ruakura Animal Health Laboratory. These reports have interesting information on the sudden death syndrome and on a number of other conditions.

BURSAL DISEASE VIRUS IN NEW ZEALAND

Further to a report in No. 8 of the AVPA Newsletter, Chris Tempest advises that he has been investigating suspected bursal disease in some of the Tegel Broiler flocks there. Sera collected from a particular breeding flock at 31 weeks of age were sent to Europe and the following results were obtained:

IBD	- negative to AGP	EDS-76	- negative to H-I
NDV	- negative to H-I	CELO	- 1/6 positive to AGP
Tipton	- negative to AGP	REV	- negative to AGP
REO	- 6/6 positive to AGP		

Two months later the Celo and reovirus tests were repeated, with two out of ten positives in the Celo tests and 5 out of 10 positives in the reovirus tests. He further reports that regular serological tests done in Europe up to the time of writing on New Zealand sera showed that the country was serologically free from infectious bursal disease and EDS-76.

FORMALDEHYDE and CANCER

SIMON ROBINSON submits the following notes which were obtained from the University of Georgia - Poultry tips.

"Formaldehyde has been manufactured and used in the U.S. for over 80 years. It is used in the manufacture of a wide range of adhesives, plastics, and resins. It is also used as a preservative in biologics and cosmetics. Because of its antimicrobial action, it has long been used in hatcheries as an incubator and hatching egg fumigant.

In the early part of October, the Chemical Industry Institute of Toxicology (C.I.I.T.) issued an interim report on preliminary results of a chronic inhalation study on formaldehyde. The study involves the exposure of rats and mice to three levels (15,6 and 2 ppm) for six hours per day five days per week, for two years. Three rats exposed to 15 ppm of formaldehyde developed cancer in the nasal passages between the 13th and 16th months of the study. A fourth case involving skin cancer was detected in a rat exposed to 6 ppm. No cancer has been observed to date in the control groups or rats at 6 ppm nor in mice exposed to any of the three levels.

The C.I.I.T. interim report made no conclusions about the potential human carcinogenicity of formaldehyde. There is no evidence of this type of cancer or any type of cancer in workers which has been attributable to formaldehyde exposure.

In light of the above information, several agencies, Consumer Products Safety Commission (CPSC), Environmental Protection Agency (EPA), and the Occupational Safety and Health Administration (OSHA) are giving increased attention to the health effects of formaldehyde particularly in relation to the provisions of the Toxic Substances Control Act. The Departments of Energy (DOE) and Housing and Urban Development (HUD) are also conducting studies, especially in relation to formaldehyde release from urea-formaldehyde foam insulation and particle board and plywood.

Inquiry was made to this office regarding alleged reports that EPA is planning to prohibit the use of formaldehyde as a disinfectant for hatching eggs and incubators. Telephone inquiry was made to the Chemicals Registration Office in EPA regarding

the alleged report. This office was informed that EPA had not taken such action and that formaldehyde could be used so long as the use was in accordance with the specific label directions.

Since formaldehyde can cause irritation to the eyes and nasal mucosa, as well as skin irritation, it would be well for hatchery owners and operators to be made aware of these current concerns. Hatchery management should be encouraged to use every care in minimizing exposure of personnel to formaldehyde during the incubator and hatchery egg fumigation process."

GAOL SENTENCES FOR ILLEGAL IMPORTING OF EXOTIC BIRDS

A report in Poultry Digest April 1980 indicates that the U.S. Federal Government has clamped down on smuggling of exotic birds. They were the original source of the exotic Newcastle Disease which caused de-population of large numbers of chickens in Southern California in 1972. Three people were gaoled from 20 days to 1½ years with suspended sentences of two to six years for conspiring to illegally bring exotic birds into the United States from Asia.

VACCINATING EQUIPMENT MUST BE KEPT STERILE

Pseudomonas only occasionally causes problems in poultry but as reported by Mireles V. in the proceedings of the 1979 Western Poultry Disease Conference the injection of the organism in contaminated vaccine equipment can give problems. In one case where it was thought that the equipment was being boiled for 20 minutes it was discovered that the equipment was in water for 20 minutes from the time of the commencement of heating and adequate boiling had not occurred. This appears to apply not only to the Marek's Disease vaccination equipment but may also apply to some of the home-made spray equipment used for bronchitis vaccination in Australia.

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