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AVPA NEWSLETTER NO. 14.

News

At the recent Annual General Meeting of the Association a new Secretary was elected, viz., Gary Cross, who is Special Veterinary Officer (Poultry Health) with the N.S.W. Department of Agriculture and is located at the Veterinary Research Station, Glenfield. Gary was recently appointed to this position which I had previously occupied before being appointed to my present position in the Department.

As will be seen by the section of this Newsletter submitted by Gary Cross, we can anticipate that his enthusiasm will contribute to the continuation of the activities of the Association.

While I am preparing this issue of the Newsletter, I believe that other arrangements are being undertaken and the next edition will include details of future arrangements.

A list of current members has been drawn up and will be circulated in the near future. It will be seen that there are a lot of new names, most of whom are practising veterinarians interested in pet and cage bird medicine.

Next Meeting

The next meeting will be held on 25 and 26 August, 1982 at the V.R.I., Melbourne. Trevor Bagust will be arranging the dinner on the Wednesday night. Those members who attended the last AVPA dinner arranged by Trevor are still wondering how he did it for the price. If you require accommodation in Melbourne please let Gary Cross know (phone (02) 605 1511). Trevor will be making a block booking.

It is proposed to set aside up to 1½ hours as a members' forum, at which a number of members may speak to a topic each for 10-15 minutes. If you wish to contribute or know someone who should, please let Gary know by 30 July.

Subscriptions

Some members still have not paid their 1982 subscription.

AVA - WVPA Congress, Perth, 21 - 27 August, 1983

As you know, the AVPA has nominated Trevor Bagust to liase with the AVA and WVPA to organise some parts of the programme for this Congress. What you may not know is that it is planned to hold an AVPA meeting as a satellite meeting to the Congress. This will take place on 31 August, 1-2 September, 1983 at the Shore Motel Convention Centre, Artarmon, Sydney. A block booking of 40 rooms has been made and parking for 200 cars is available. It is hoped to have up to six of the international speakers address the meeting. The meeting will be of an open forum type at which non-members will be welcome. An application on behalf of the AVPA will be made to ACMRC and FRAC for a donation to fund this meeting.

Further Comment on Worm Treatment

The previous issue of the Newsletter referred to a control and therapy item from the Post Graduate Committee in which Lopatol was recommended for use in poultry. Another article has been submitted by the veterinarian employed by the manufacturer, indicating that as the toxicology information is not available hens should not be treated if their eggs are for human consumption.

In another comment on the use of Lopatol in the Control and Therapy series, a method of administering medication to pet fowls by mouth is described. Any of the old-time veterinarians who had used carbon tetrachloride for worm treatment will realise that it is even easier to administer if somebody else holds the bird dangling by the wings and then the veterinarian can hold the head and administer the tablet with little danger of soiling his clothes.

SUBMISSION BY LEN HART

At our recent meeting, Arthur Webster gave a brief history of vaccination against I.L.T. Further information may be of interest to members.

I.L.T. in 1935, when first diagnosed in N.S.W. and in succeeding years, was quite a devastating disease, with mortalities likely to range from 10% to 50%. Burnett had grown the virus on C.A.M. at this time but the technique was not available to us then.

Vaccination, using tracheal exudate had been demonstrated in the U.S.A. to be a useful method of immunising against the disease. It took some time for us to persuade the powers-that-be to allow us to apply this method to our industry. Remember that freeze-drying was not available, and thus vaccine could not be held whilst tests were made for the presence of other pathogens. Vaccination was initially performed with exudate taken from acute cases on the property, but in some cases where haste was not necessary (prophylactic) virus was propagated in normal cockerels, reared in comparative isolation from day-old, using the strain from that property.

Vaccination was done by the Agriculture Department free of cost. The results were, in general, highly satisfactory (see Hunterford and Hard, (1939) - A.V.J. 15, 140).

The practice was carried on for 3 or 4 years until veterinary practitioners took over. Subsequently, there was one bad "crash" due to a continuation of the vaccine with Pasteurella but overall the industry was very satisfied with the part vaccination played in the control of I.L.T.

Arthur Webster (Snr.) produced an egg-grown vaccine but it was not readily accepted by the practitioners. C.S.L. also produced an egg-grown freeze-dried vaccine which was used in Victoria (Arthur Webster's vaccine also was used in Victoria).

In 1948 there was a catastrophic outbreak of I.L.T. in Western Australia. On my recommendation blanket vaccination, using C.S.L. egg-grown freeze-dried vaccine was carried out by government vaccinators, and was continued in later years. The Chief Veterinary Officer for W.A. at the time reported the virtual elimination of per acute outbreaks of I.L.T.

Eventually, of course, the vaccine now used was developed and the vaccine is now S.P.F.

SUBMISSION BY GARY CROSS

Is Reduced Gluthathione an Antitumour Agent?

An article in New Scientist (1982) 92 : 167 reports that malignant cells in the livers of rats infected by aflatoxin B1 may have been suppressed so that normal cells subsequently grew. The rats were fed reduced gluthathione, an antioxidant which mammals produce naturally. In the experiment a "startling" 81% of rats were apparently cured. The researcher, Ann Nori, concluded that this harmless natural produce needed further research investigation as an antitumour agent in humans.

Adrenal Insufficiency in Psittacine Birds

Roskopf, W.J., Jr. et al (Procs. 30th Western Poultry Disease Conf., 1981, p.76) state that adrenal pathology/insufficiency are common sequelae to diseases in psittacine birds. They reported that adrenal therapy gave best results in conjunction with therapy for bacterial septicaemias. It was of limited value for Pacheco's disease. Idiopathic Addisonian cases could be maintained indefinitely if the bird was free of other diseases and was properly monitored.

Some of the drugs mentioned are available in Australia:

- (a) Dexamethasone Injectable 2 mg/kg, by drinking water
0.2 - 0.4 mg/100 ml;
- (b) Florinef 0.1 mg tabs (E.R. Squibb & Sons P/L) $\frac{1}{4}$ - 1 tab/
100 ml drinking water.

Avian Therapeutics

An article by Woerpel, R.W. & Roskopf, W.J. Jr., on avian therapeutics appears in Modern Veterinary Practice (1981) 62 : 947-949. The dose rates of drugs commonly used in the treatment of caged birds are listed according to their pharmacologic action.

Corkage Problem?

Half of the world's hyoscine and similar alkaloids are extracted commercially from the Australian corkwood. Atropine-like effects are occasionally observed among those collecting the plants, ranging from mydriasis ("cork-eye") to full-blown intoxication ("corked up"). (Tearn, J.(1981), Med. J. Aust. 2 : 422).

Generalised Inclusion Body Disease in Budgerigar Nestlings

Bernier et al in Avian Dis. (1981) 25 : 1083 describe a disease in budgerigar nestlings with clinical signs of abdominal distention, lack of down feathers and filoplumes and death. Lesions seen at necropsy included hydropericardium, enlarged heart and liver with multiple pinpoint white or large yellow foci, pale or congested kidneys, congested lungs and ascites. Histologic examination revealed basophilic intranuclear inclusion bodies in many tissues. The viral particles in these inclusions had the size and morphology of a papavovirus. This virus would appear to have been characterized by Bozeman et al, Avian Dis. (1981) 25 : 972.

Caged Bird Medicine - Selected Topics by C.V. Steiner and B.D. Davis

This book, published in 1981 by the Iowa State University Press, Ames, Iowa, is a syllabus of the common problems a small animal practitioner will see when working with caged birds (ISBN 0-8138-1715-3; 176 pp., about \$25.00).

The early chapters describe avian genera, anatomy and physiology, physical examination, nutrition and chemotherapy. Chapters on diseases of the respiratory and digestive systems, lameness, nutritional deficiencies, tumours and egg binding, psittacosis, Pacheco's Disease and Newcastle Disease are presented. Anaesthesia, first aid, cleaning oiled birds and a technique for post-mortem examination are also covered. Each chapter is accompanied by a questionnaire.

The authors state that this book "is not a complete review of caged bird medicine, nor does it offer a sophisticated approach to every problem". Nevertheless, it fills a vacancy that has been sorely needed by the avian veterinarian. The book would appear to be in great demand for it has had two printings in the first year.

BOOK REVIEWS (from Vet. Bulletin)

U.S.A., UNITED STATES DEPARTMENT OF AGRICULTURE
PROCEEDINGS OF INTERNATIONAL SYMPOSIUM ON ANIMAL HEALTH AND DISEASE DATA
BANKS, DECEMBER 4-6, 1978, WASHINGTON D.C., U.S.A. (1979) 316 pp. (En, many
ref., Miscellaneous Publication No. 1381, U.S.D.A.)

This symposium was sponsored by the Animal and Plant Health Inspection Service, Veterinary Services and Technical Information Systems of the Science and Education Administration, U.S.D.A. These proceedings contain the 30 papers presented, the participants coming from nine countries. The proceedings are in five sections, covering Bibliographic systems (including a description by Roy Mack of the work involved in production of Index Veterinarius and The Veterinary Bulletin); Epidemiological information; Laboratory and clinical data; Research in progress on information systems; Animal Production and economic data. No discussion is recorded, except for a summary of discussion of papers in the epidemiological and laboratory and clinical data sections. In the introduction the Chairman indicates that the main purposes of the symposium were to establish personal and corporate contacts, increase communication among data bank specialists, and promote the development of compatibility between data banks, or progress being made in a particular country. However, the papers in the last section each cover a continent or group of countries. There is a list of acronyms included in this publication and a subject index. Many papers will be noted in Index Veterinarius.

BLOOD, D.C.

THE VETERINARIAN IN PLANNED ANIMAL HEALTH AND PRODUCTION

Canadian Veterinary Journal (1979) 20 (12) 341-347 (En, fr.)

Univ. Melbourne Vet. Clin. Centre, Werribee. 3030, Vic., Australia.

The paper describes current trends in animal production and how the veterinarian could best play his part in these developments. Additional post-graduate education would enable the veterinarian to function as a co-ordinator of advice to the farmer. A primary objective should be to assist the animal farming industry at a time when economic difficulties are causing a change in attitudes to the veterinary profession. Broadening of the veterinarians' activities would widen opportunities to use traditional as well as new skills to make a greater contribution and possibly increase their influence and employment opportunities. An example of a functional planned health and production programme is quoted. It applies to dairy herds but is adaptable to sheep and beef herds as well as to the pig industry.

LOW, R.

PARROTS. THEIR CARE AND BREEDING

Poole, Dorset, J.K. : Blandford Press, Link House, West. St. (1980)

654 pp. ISBN 0-7137-0876-X (En. 91 pl. Price £22.00).

This is a very practical guide to keeping and breeding parrots in captivity, for the enthusiast. Part one has chapters on the choice of species, management, types and construction of aviaries, feeding, the pair bond, hand-rearing chicks, mutations, parrots as pets and the causes and care of sick birds. Part two comprises 18 chapters which describe the various species with a guide to their management. The book is fully illustrated with 91 colour and 27 black and white photographs. There are indices of scientific and English names, and a bibliography of 175 references.

From Webster's Veterinary Digest

SPREAD OF ANIMAL DISEASES BY HYPODERMIC NEEDLES

Against the background of the 'slow virus diseases', inoculation of groups of cattle and sheep now presents a real danger of spreading disease unless a separate sterilised needle is used for each animal. This also applies to blood sampling. Any procedure which is capable of transferring minute amounts of blood from one animal to another carries the same risk if the instruments used are not thoroughly cleansed and disinfected between each animal. Ear punching of cattle, ear nicking of sheep, the use of multidose automatic syringes for the injection of animals with vaccines, worming drugs and growth promoters all introduce

this hazard. The throat-gun used for dosing sheep with worming drugs also carries some risk. Laborious, time-consuming and costly as these precautions are if not observed, their observance is the only way to avoid transmitting disease.

Miscellany.

Br. Vet. J. (1981), 173, 155

ADEQUATE NUTRITION IS SAID ESSENTIAL FOR BIRD'S IMMUNITY

It is generally recognised that adequate nutrition is required for an animal to remain healthy and to effectively resist disease. This means providing adequate levels of not only protein and other energy-producing materials but also sufficient amounts of non-energy nutrients such as vitamins and minerals. A joint intradepartmental research project involving members from the sections of genetics, nutrition and physiology is investigating the effects of Vitamin E and the trace mineral, selenium, on immune system development and function.

The studies thus far have produced data that support the hypothesis that adequate levels of both of these nutrients are essential for optimal immune function in the chick. Specifically, the experimental findings suggest the following conclusions:

1. The nutritional status of the responding animal becomes of increasingly critical importance as the concentration of the immune stimulatory agent (antigen) decreases. This indicates that chicks with a dietary deficiency of one or both of these nutrients may be particularly susceptible to reoccurring low-level infections.
2. The requirement for Vitamin E and selenium by the immune system changes as the animal matures. The young chick that is just developing immunocompetence is most affected when a deficiency of either nutrient is present. One effect of this impaired immune functioning is decreased antibody production.
3. Not only selenium deficiencies, but also levels of selenium in excess of nutritional requirements may cause the immune system to function sub-optimally. This is especially true in the male chick and much less so (if at all) in the female.

These results are a part of continuing investigations on the role (2) of various nutrients in contributing to disease resistance by facilitating immune system functioning. The effects described above are being further examined to determine the physiological, biochemical and genetic bases regulating immune responsiveness.

J. A. MARSH

Cornell Poultry Pointer, Dec., 1980. Poultry Digest, April, 1981

FOWL AND MITE

Fluorescent pigments were used to measure plumage coverage when caged laying hens were tested for Northern Fowl Mite Control. The equipment and chemicals are compared in a trial published by R.D. Hall, et al. (1981) Poultry Science 60 : 1187.

MYCOTOXINS

A paper by Pryor, M.G. et al. (1981) Poultry Science 60 : 1145 in which a single mycotoxin is investigated should be an indication to anybody concerned about the possibility of such toxins being involved in some of the complex poultry disease conditions observed in Australia. This article is an interesting precautionary tale indicating the complexities involved.

NEWCASTLE DISEASE VACCINATION SELECTION

An article by Winterfield, R.W. and Dhillon, A.S. (1981) Poultry Science 60 : 1195 indicates the difficulties of testing Newcastle Disease Vaccine for field use. Those who think that the future possibilities of Newcastle Disease use in the event of an outbreak in Australia has been adequately decided should consider this article seriously.

SUB-CUTANEOUS POX VACCINATION

Work reported by Springer, W.T. and Truman, R.W. (1981) Poultry Science 60 : 1213 indicates that considerable care should be taken in the use of sub-cutaneous method of administration of pox vaccines to young chicks because weight and immune response can be interfered with by some virus strains. The selection of the correct vaccine virus is obviously important.

IMMUNO-SUPPRESSION BY VIRULENT BUT NOT BY AVIRULENT MAREK'S DISEASE VIRUS

Ellis, M.N. et al. (1981) Poultry Science 60 : 1344 reports an effect of virulent Marek's Disease virus on antibody production in birds infected with *Mycoplasma synoviae*. Chicks infected with the avirulent strain exhibited a slight immuno-suppression but had no evidence of bursal destruction.