



Australian Veterinary Poultry Association

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COMING EVENTS

21-22 February 1985 AVPA AGM and Scientific Sessions, Sydney

13-17 May 1985 AVA AGM, Melbourne.

16-17 May 1985 Cage & Aviary Bird Medicine Seminar, Melbourne
 Contact Patricia Macwhirter, 128 Highbury Grove, Burwood 3125
 (03) 288 9843

16-20 May 1985 Third National Aviculture Convention, Melbourne
 Contact John Zitta, PO Box 611, Sunshine 3020

26-29 August 1985 WVPA VIIIth Congress, Jerusalem, Israel.
 Further information from Garry Cross

22-27 September 1985 AVPA OGM and Scientific Sessions, Melbourne
 This meeting will be held in association with the
 Sixth Australasian Poultry and Stock Feeds Convention.

Early 1986 AVPA Histopathology Workshop

26-30 May 1986 AGM and Scientific Sessions, Sydney
 This meeting will be held in association with the
 Post-Graduate Foundation in Veterinary Science Refresher Course.

MONITORING FLOCKS FOR AE IMMUNITY BY THE ELISA TECHNIQUE

Jim Gould writes that this test, which was developed at the Veterinary Research Institute by Dr. Ian Smart and Dennis Grix, is now being used to determine the immune status of young pullet flocks before they come into lay, so that, if necessary, the birds can be vaccinated or revaccinated before they come into production.

Preliminary results have shown that while most vaccinated flocks have developed a satisfactory immunity, this is not always so. Hence there is a need to monitor flocks so that any that are susceptible can be identified and immunised before they come into production. In practice, the vaccine is given either in the drinking water or by eye-drop and sufficient virus is given to infect 10% of the flock. These birds then excrete the vaccine virus in the faeces and the remainder of the flock becomes immunised by the secondary spread of the vaccine virus. This means that the rate of spread of the vaccine virus within a vaccinated flock is very important and we have found that this may take three or more weeks to occur. In order to speed up the immunisation process some organisations are giving two vaccinations separated by two weeks. An alternative would be to increase the amount of vaccine given in the drinking water or increase the number of birds which are individually vaccinated. More work is required to define the optimum method.

Occasionally some birds, even when the flock has been vaccinated twice, fail to develop a satisfactory response. Normally such a procedure results in the development of good immunity, but when birds do not respond as expected this may be due to inadequate vaccine or vaccination procedure. Thus it is important to follow the vaccine manufacturer's directions carefully and note the batch number of the vaccine used so that useful investigations can, if necessary, be made subsequently.

**PROGRESS REPORT : CAGE & AVIARY BIRD MEDICINE SEMINAR
SESSIONS TO BE HELD BEFORE THE NATIONAL AVICULTURE CONVENTION
16-17 MAY 1985 MELBOURNE**

Cage and aviary bird scientific sessions are planned for Thursday and Friday 16 and 17 May 1985. The Aviculture Convention will be held from Friday evening, 17 May to Monday 20 May.

Dr. Greg Harrison, a noted American avian veterinarian has agreed to come as our key speaker. He will present material on current techniques in avian surgery, particularly the use of electrosurgical and laproscopy techniques. He will also be speaking on reproductive problems and artificial insemination in parrots.

The Colin MacKenzie Sanctuary at Healesville, Victoria, is planned as the venue for the Thursday. The Education Resource Centre at the Melbourne Zoo is planned for the Friday. Both venues have excellent bird collections.

A workshop session is planned for Friday afternoon with participants rotating between surgery, laproscopy, clinical pathology and avian practice equipment demonstrations.

At this stage other speakers will include:

*Dr. Ross Perry speaking on current research into feather problems in cage and aviary birds.

*Linda Harrison (Editor of the Avian Veterinary Association Newsletter) speaking on current trends in avian research in the USA.

*Dr. Ray Butler and Dr. Jim Gill (topics yet to be finalized). Several other excellent overseas and local speakers are thought likely to accept invitations to speak but arrangements have not yet been completed so it would be inappropriate to mention further names at this time.

Some talks will be hour-long lectures. There will also be a series of short 10 to 20 minute presentations. Poster presentations would also be most welcome. If any AVPA member or other interested individual has material that they would like included in the program please let me know.

These sessions will finish at 5pm on Friday 17 May. The National Aviculture Convention, which is organised every second year by aviculturists, will begin on Friday evening at Monash University and continue until Monday evening 20 May. In the past the quality of material presented by aviculturists at these conventions has been excellent and it is anticipated that many veterinarians attending the AVPA sessions will also want to attend the convention. Arrangements to do this should be made directly with the Convention organizing committee. Further details will be made available at a later date.

Pat Macwhirter, B.V.Sc.,
Convenor

An ounce of cure Physicians, patients and politicians who are impressed that some drugs cost more than gold should note that (125I) iodoestradiol costs \$242 for 10 uCi. Those preferring an ounce to a tonne of cure will pay \$2 468 691 574 784 and will need to use it fast - with a 60-day half-life, an ounce loses its value at the rate of \$330 086 per second.

AVPA BACTERIOLOGY WORKSHOP: Pat Blackall & Kevin Cooper report :

The workshop was conducted in an informal manner with both the practical and theoretical sessions encouraging contributions from the participants. The participants represented industry and government laboratories in most Australian states and Papua New Guinea.

From a number of views the workshop was successful. The following benefits have flowed from the workshop:-

- (a) Establishment of personal contact amongst avian bacteriologists.
- (b) Sharing of a large pool of knowledge and experience previously available to only a few individuals.
- (c) Permanent record of theoretical sessions. The proceedings will be of benefit for some time to come as a reference for diagnostic avian bacteriology.
- (d) Recognition amongst those who attended of a need for some form of quality assurance programme to assist bacteriologists to maintain an effective and efficient diagnostic service.
- (e) Demonstration of inadequacies of the "kits" and the methods currently being used for sensitivity testing.

As this workshop was the first of its type there were some problems and deficiencies. While not wishing to detract from the success of the workshop, it is important to recognize these problems:-

- (a) Some areas of bacteriology were not covered either in theoretical or practical sessions. These omissions were deliberate. Future workshops could cover these areas eg. anaerobes, serology, primary isolation.
- (b) Wide disparity in experience of those attending meant that some attendees found the workshop attempted too much in the time available while other found it attempted too little. This problem could be overcome in future by running the workshop at two levels; Advanced and Basic.
- (c) Practical sessions were somewhat unrealistic. As all media had to be transported to the University only a limited range could be provided. Hence identifications could only be done by using the grouped sets of tests provided for the sessions. The practical component would have been more realistic and hence more beneficial if the attendees had to choose the appropriate tests from a large bank of general media. This approach is only possible if the Workshop is held at a site where such "media banks" are available or created especially for the Workshop.

Suggested Follow-up Action

While the Workshop was a worthwhile operation in its own right, even greater benefits can be gained if the interest created is followed up. All those present at the Workshop expressed interest in continuing action in the two following areas:-

(a) Sensitivity testing

Kevin Whithear has expressed interest in the area of sensitivity testing. Initially, it is envisaged that a once off survey could be performed. In this survey a standard set of organisms would

be sent to laboratories for antimicrobial sensitivity testing. The results obtained from such a survey would indicate:-

- (i) the range of testing techniques used in avian bacteriology and
- (ii) whether significant disagreements occur between laboratories.

Any further action could be decided upon using the results obtained in the survey. While planning for this work is still only in the early stages, it is urged that the AVPA support this concept.

(b) Quality Assurance

The establishment of a general quality assurance survey for avian bacteriology laboratories would be a major undertaking. However, such a survey would be highly beneficial to the participating laboratories and thus to the poultry industry. As background development for such a survey the following would be necessary:-

- (i) determine those laboratories willing to participate.
- (ii) contact organisers of similar surveys for other types of bacteriology laboratories (eg. Australian College of Pathologists).
- (iii) establish feasibility of survey, eg.
 - Which Central Laboratory?
 - Cost of participants
 - Type of samples, etc.

It is urged that the AVPA support an investigation into the feasibility of a general quality assurance programme for avian bacteriology laboratories. It would be envisaged that interlaboratory identifications would form an integral part of such an undertaking.

The Future

The consensus of opinion was that similar workshops should be held from time to time. While there is no immediate need to run another workshop, future workshops should benefit from the experience gained.

Suggestions for any future workshops are as follows:-

- (a) If possible, workshops should be held in facilities where access to a large bank of media is feasible. If for other reasons (accommodation, etc.), this is not possible, then such a bank of media should be established expressly for the workshop. This reserve of media allows for far more flexible and realistic practical sessions.
- (b) For future workshops, consideration should be given to running them at 2 levels - basic and advanced. The workshop should then be advertised as such and thus attendees would be aware of the level of the particular course.
- (c) A wider area of bacteriology incorporating serology, anaerobes and primary isolation procedures could be included in future workshops. This could be done at both the basic and the advanced level. It would be important to ensure that appropriate lecturing staff are used to cover these areas.

CHAIRMAN OR CHAIRPERSON?

Garth Read sent this comment which she extracted from an article by the President of a Rostrum Public Speaking Club in New Zealand:

'Those of us involved in attending and participating in meetings have become accustomed to the lapse of the term 'chairman' in favour of 'chairperson', a formation alleged to avoid a so-called sexist connotation implied by the former term. The assumption has been that the word chairperson, formed on the idea of 'person' being applicable to males and females alike, appropriately eliminates a patently male meaning of the 'man' element of 'chairman'. This assumption is erroneous because it shows ignorance of the origin of the 'man' element, which is in fact devoid of any suggestion of gender, deriving from the Latin 'manus' meaning 'hand' and therefore meaning the person who handles the meeting.

'As for the origin of the English 'man', the male of the species, we have here a word deriving from Germanic, not Latin, sources. The usual etymological explanation is that 'man' derives from Gothic 'mannisc', meaning 'man', 'thinking being', as a derivative in turn from the Proto-Indo-European root 'men', referring to movements of the mind. On the basis of these points, therefore, I claim that the use of the term 'chairman' is mandatory and the use of 'chairperson' is incorrect.

'So literally it means little whether the incumbent is male or female, they are still the Chairman of the meeting.'

More or lesser beings

Nevertheless, it will take more than a kiwi to divert a bandwagon that is rolling in this country. Federal legislation, it is claimed, is riddled with sexist terms; the words "he", "him" and "his" occur about 50,000 times in Federal acts. Federal Cabinet has set out to drive sexism from new and amending legislation. In doing so, it has received many helpful suggestions, including two inventions of non-sexist pronouns - "id" and "s/h/it" (short for she, he or it). The Attorney-General, Senator Evans, said in a Press release that "id" came from the Royal Commission on Human Relations. He did not attribute the acronym.

The Government has decided new guidelines that lay down that personal pronouns should be avoided. Senator Evans provided an example: "A member of a tribunal may resign his office by writing signed by him" should be changed to "a member of a tribunal may resign from the office of member by writing signed by the member". The Senator continued "The changes are not merely cosmetic. The Government accepts that drafting in 'masculine' language could contribute to the perpetuation of a society in which men and women see women as lesser beings".

Fortunately small pockets of sanity survive. Professor John Ziman, in his introduction to the Dunstan report (Human Procreation, OUP, 1984 3.95 pounds), includes the following explanation of a now-unfashionable usage:

'The report is written in English, a language which has a common gender for statements applying to masculine and feminine, male and female, without distinction. Sometimes the grammatical form of the common gender and masculine coincide, but that is no impediment to its use. We have employed this grammatical facility because it yields a prose less cluttered and more elegant, and as readable.'

Table Talk Poultry Farms Ltd. require a veterinarian for its operation in Victoria. New graduates are welcome to apply. Salary to \$30 000, depending on previous experience. A Company car will be supplied. Applications to the State General Manager, Table Talk Poultry Farms Ltd., PO Box 123, Bayswater Victoria 3153. Enquiries to Dr Clive Jackson (02) 627 2422.

WVPA VIIIth CONGRESS

The VIIIth International Congress of the World Veterinary Poultry Association will be held in Jerusalem, Israel, on 26-29 August 1985. The Congress will combine review papers of invited speakers on general aspects of poultry diseases with symposia and papers on specific topics. A special effort will be made to allow for informal and productive interchange of ideas. The official language of the Congress will be English. A variety of accommodation has been reserved within walking distance of the Congress venue. A programme of tours will be offered during session time and before and after the Congress. Entry visas to Israel, if required, will be granted to all bona fide participants provided application is made at least 3 months before arrival in Israel. Further information is available from Garry Cross.

The distribution of specific phage types of *Salmonella typhimurium* within the Australian chicken industry has been studied and documented on an Australia-wide and state-wide basis by Coloe *et alia* 1984 Journal of Hygiene, Cambridge 92 177-182. A total of 1799 strains of *S. typhimurium* were obtained from Australia-wide sources and phage typing categorised 1498 of these isolates into 30 distinct phage types, with the remaining 301 strains untypable. Five phage types accounted for 76% of the total strains typed, with the remaining 24% of strains being distributed among 25 phage types. Of the major phage types, type 31 was restricted to Victoria and WA but the other types were distributed throughout Australia. Antibiotic resistance patterns of the various phage types were determined and only five of the 30 phage types showed appreciable levels of resistance.

RE and *E. tenella* infections in broilers Chickens infected with reticulo-endotheliosis are more susceptible to viral and bacterial infections. Motha and Egerton 1984 Veterinary Microbiology 9 121-129 report work at Camden which showed the effect of REV on the susceptibility of chickens to protozoal infections. Mortality in chickens with combined REV and *E. tenella* was significantly higher than in birds with single infections or those free of both infections. Lesions attributable to coccidiosis were increased in severity when REV infection was concurrent. REV infects organs involved both in humoral and cell-mediated responses. This experiment showed that REV can alter the response to *E. tenella* infection and hence the potential to increase losses from coccidiosis under field conditions.

Pathogenicity of *Haemophilus* isolates Twenty seven Australian avian *Haemophilus* isolates were tested by Reid GG & Blackall PJ 1984 Veterinary Microbiology 9 77-82 for their ability to cause infectious coryza in SPF chickens. All 15 isolates, identified as *H. paragallinarum*, produced infectious coryza, whereas all 12 *H. avium* isolates were non-pathogenic but spread to in-contact chickens.

Book Review

RA Perry 'Diseases of Birds - Avian Therapy and Disease Control'. Vade Mecum No. 2, pp. 145. University of Sydney Post-Graduate Foundation in Veterinary Science, 1983. \$18.

The University of Sydney Post Graduate Foundation in Veterinary Science has an enviable reputation for producing concise proceedings, books and reviews with a condensed indexed style ideal for practitioners. This book is no exception.

The first edition (145 pages, no illustrations) brings under a single cover information on a wide range of drug therapy for many bird species, advice on nutrition and disease control and prevention. Some normal physiological data are given. The format is a dictionary type alphabetical set out, with index. References are given for most entries.

Emphasis has been placed on the need for readers to consider the cautions and disclaimers presented. This is prudent due to the frustrating lack of proper trials for most avian therapy. More critical clinical trials are urgently needed to bring the **science** of treating birds more in line with the companion animal standard.

Minor changes in referencing, layout and a more comprehensive content should ensure that subsequent editions will become the "Merck Manual" for the avian practitioner. Undergraduates will also find the book very useful.

Teething problems aside, the author and the Foundation are to be congratulated for producing this much needed text on avian therapy and disease control. Every practitioner should have a copy of this book in their library and should look forward to future editions.

David Madill

Staph and Processed Turkeys

The incidence of *Staphylococcus aureus* on turkeys sampled at various stages of processing was determined on four occasions at each of three different processing plants in the UK by Adams BW & Mead GC 1983 *Journal of Hygiene, Cambridge* 91 479-490. For freshly slaughtered birds, counts from neck skin varied from plant to plant over a range 100 to 100 000/g but in all cases the corresponding counts obtained from carcasses sampled after chilling rarely exceeded 1000/g and the same was true for samples of mechanically recovered meat (MRM), the final raw product examined. Both human- and animal-derived strains were obtained. However, some biotypes isolated from MRM were not detected at earlier stages of processing.

At one processing plant, an 'indigenous' type of *S. aureus* occurred in high numbers in the defeathering machines (up to 100 000/swab), was found on carcasses at all subsequent stages of processing over the survey period and was shown to survive routine cleaning and disinfection procedures. Isolates of this type produced unusually large amounts of extracellular 'slime' in artificial culture.

Two of the three processing plants yielded isolates which were enterotoxigenic. Of 55 strains from one plant, 60% produced enterotoxin C and all were of the 'indigenous' type.

***Bordetella avium* - the turkey coryza agent: a request for isolates**

Since the late 1970s a gram negative, non fermentative, motile organism has been associated with a respiratory disease of turkeys. The disease has been known by several names including turkey coryza and rhinotracheitis. The causative agent has also had several names:- turkey coryza agent, *Alcaligenes faecalis*, *Bordetella* spp. The organism has also been associated with respiratory disease in chickens. Recently Kersters *et al* International Journal of Systematic Bacteriology 34 56-70 performed an extensive study and concluded that the organism was a member of the genus *Bordetella* and proposed the new specie *Bordetella avium*.

Pat Blackwell and Jeff Farrah at the Animal Research Institute, Yeerongpilly, have been studying suspect *B. avium* isolates obtained from Australian poultry. They have recently been able to confirm that four local isolates are *B. avium*. In order to help establish the role of *B. avium* in Australia poultry they are keen to obtain more isolates. Anyone with isolates suspected of being *B. avium* are encouraged to refer the isolates to Pat Blackall. Where possible, relevant clinical details should be included with the isolates.

The following list of properties is a guide to when an isolate should be suspected as being *B. avium*:-

Gram Stain	- Negative Rod
Oxidase	- Positive
Growth on MacConkey Agar	- Positive
OF test	- Alkaline
Motility	- Positive
Flagella	- Peritrichous

Full details on the identification of *B. avium* and other similar organisms are given in "Proceedings of the A.V.P.A. Avian Bacteriology Workshop". Copies of these proceedings are available from Garry Cross.

Please contact Pat at the Department of Primary Industries, Pathology Branch, Animal Research Institute, Fairfield Road, YEERONGPILLY, BRISBANE. Q. 4105; Telephone:- (07) 892 9400

Anaesthetic agents in birds

The effect of three injectable drugs and a combination of two of them was compared in birds by Samour *et alia* 1984 Veterinary Record 115 6-11. The agents were ketamine hydrochloride, xylazine hydrochloride and the steroid mixture alphaxalone-alphadolone. Ketamine and xylazine were used in combination. One hundred and fifty-four species, all maintained by major zoos in the United Kingdom, were studied. The results, which are published in detail, indicate that the drugs used produced more widely differing effects in the range of species studied than have previously been reported.

The Record has published many comments on this paper including letters by Lawton (VR 21 July p.71), Forbes (VR 11 Aug p.134), Richardson (VR 18 Aug p.159), Green and Simpkin (*ibid*), Cooper (VR 15 Sep, p.283) and Coles (VR 22 Sep, p.307).

PIGEONS - DEAD AND LIVE

On October 10, Customs officers at Tullamarine airport intercepted an in-coming passenger and found 16 live pigeons concealed in a false-bottom suitcase and a cardboard carton. The passenger is being charged with a number of offences under the Custom and Quarantine Acts.

By coincidence, earlier that morning Quarantine officers with support from Customs and State Agriculture Departments and the police visited the properties in NSW, SA and Victoria of 12 racing pigeon breeders thought to possess illegally imported birds or pigeons which had been in contact with such birds. The raids resulted in more than 1000 birds being ordered into quarantine and destroyed. Enquiries continue.

In recent years, a large number of people have been intercepted bringing in birds or eggs which have also been found in the parcel post, in airport amnesty bins and abandoned on aircraft. Information on the origin and destination of the birds is difficult to obtain. However a number of breeders openly advertised in Australian and English magazines what some of the racing fraternity had long talked about - the racing and trading of birds with foreign pedigrees. Some of the pigeons offered for sale were of lines developed in England and Europe in the last few years. Concern increased with the recognition of disease caused by paramyxovirus 1 in pigeons in Europe, Britain, the United States and Japan.

Meanwhile, Quarantine officers must not destroy the 500 racing and breeding pigeons owned by John Hanson and his mother Iris, West Wyong, NSW. Mr Hanson's birds, which he values at \$120 000, were saved by a temporary restraining order he obtained on October 10 from the Supreme Court.

Justice Wilcox, who granted restraining orders sought by the Hansons in the Federal Court on November 14, said he was satisfied that none of Mr Hanson's birds was infected with Newcastle disease. The judge said he did not doubt the sincere motivation of the NSW Chief Quarantine Officer (Animals), Mr David Dickinson, in ordering the birds destroyed. Mr Hanson had brought his trouble on himself by his deceptive description of some of his birds which he had falsely advertised for sale as an imported strain. Mr Dickinson believed the birds had come from Europe, where Newcastle was widespread, without the necessary official approval to import them.

Justice Wilcox said Mr Hanson had admitted in evidence that his advertisements were "just a fraud on the purchasers".

Mediation of Resistance against MG

Lam KM and Lin W 1984 Veterinary Microbiology 9 509-514 have confirmed that vaccination with a temperature - sensitive mutant of *Mycoplasma gallisepticum* protected newly hatched chickens against challenge by the virulent S6 strain MG. Removal of the thymus did not abolish the protective effect of the vaccine, but removal of the bursa of Fabricius did. The results suggest that the resistance induced by vaccine is mediated by the bursal-dependent lymphoid cells. The mechanism of resistance is still unknown, but it is suspected that a depressed immunoglobulin A level in the nasal cavity of the chicken as the result of the bursectomy might be responsible for the loss of resistance.

Stress of transportation for broilers Transporting animals many miles can impose many stressors upon them including deprivation of food and water, extremes of temperature, crowding, high air velocities, noise and motion. Data on the effects of journeys in England up to 224 km on a number of variables associated with the stress response were reported by Freeman *et alia* 1984 Veterinary Record **114** 286-287. They found that transporting groups of 60 broiler chickens aged about 42 days for 2 to 4 hours over such distances induced hyperlipidaemia and hypoglycaemia while the concentration of plasma cholesterol decreased and then increased significantly. These responses were the same in summer and winter. Body temperature was not affected by the experimental conditions. There was a consistent increase in plasma corticosterone which was greater in winter than in summer.

Testing toxicity AS a result of the interest focussed by antivivisectionists, the LD50 determination has become an emotive issue obscuring the general need for acute toxicity studies within the pharmaceutical industry. Some concerned with drug development in the industry have stated that in general they see no need for estimation of the formal LD50 with its requirements for large numbers of animals. Limited acute toxicity studies would satisfy scientific and practical needs, except in certain instances, for example, where certain biological products are involved. Some academic toxicologists share this view. Regulatory authorities responsible for public safety have been slower to move, according to Dayan *et alia* of the Association of the British Pharmaceutical Industry, who succinctly described the LD50 and the acute toxicity test - their origins, uses and roles in drug development - in the Lancet of 10 March 1984, pages 555-556.

A recurrent question Does the use of chloramphenicol in animals jeopardise the treatment of human infections? Lacey 1984 Veterinary Record **114** 6-8 answers that at present this risk appears minimal; resistance to chloramphenicol in animal bacteria may well be selected by the increasing use of semi-synthetic penicillins because of linkage between genes coding for production of β -lactamase and resistance to chloramphenicol. Among salmonellae, the strains causing enteric fever have no animal reservoir and the few food poisoning incidents in man that require therapy can be treated with antibacterial agents such as trimethoprim. Chloramphenicol is not now the antibiotic of choice for any human infection except a few caused by *Haemophilus influenzae*. Resistance to antibiotics in "human" cultures has largely been selected by the use of antibiotics in human medicine. Control of salmonellosis is essentially a public health problem, not a therapeutic problem. Lacey sees little prospect at present of eliminating the bacterial reservoir from intensively reared animals and poultry, reiterating that much salmonella food poisoning can (and should) be prevented by three simple measures: Careful separation of cooked food from uncooked food, adequate cooking of raw food and consumption of cooked food as soon as possible.

Chicken plus The notorious Delaney clause in the United States food and drugs legislation says that any substance found to induce cancer in animals must be banned from use in food. This 1958 law encouraged research groups to feed rats vast amounts of substances such as artificial sweeteners with the intention of driving them off the market. Now, however (Science 1984; **224**:851-2), the Environmental Protection Agency is planning to authorise the use of a known carcinogen in chicken food, despite evidence that traces will appear in eggs and chicken meat. Predictably, environmentalists are on the warpath.

SWOLLEN HEAD SYNDROME

Paul Gilchrist writes that Morley AJ and Thomson DK 1984 Avian Diseases 28 238 have reported a form of facial cellulitis of broilers in South Africa caused by a coronavirus. The vernacular name of swollen-head has been used. This seems an unfortunate lapse when facial cellulitis is an available descriptive term with more meaning and accuracy.

I have seen two conditions which could attract the name swollen head syndrome. One looks similar to that described. The other occurred in 1961 at Marsden Park, west of Sydney, just opposite where the Table Talk processing plant now stands.

On an investigation I was led by the farmer, accompanied by his dog - not an uncommon occurrence then - into a semi-intensive shed of twelve week old pullets. The pullets had been vaccinated against pox and ILT a few weeks earlier and had developed swollen heads. The farmer blamed the vaccine.

While I was examining the blue bruised swellings of what appeared to be early cases and the purulent cellulitis of advanced cases, the farmer was called away to the telephone.

The farmer's absence triggered off the dog's playful habit of catching the pullets in his mouth, very firmly but gently, by the head. He held the head still while the bird struggled. Four or five birds were held in this way until the returning footsteps of the farmer brought the dog back to inactivity. The farmer took some convincing of the aetiology of this condition because the dog would not perform in his presence. Finally his threats to sue were prevented by suggesting that keeping the dog out of the pen for a week would prove my point.

Immediate eradication of the condition occurred.

More dog days How loudly do Peter Singer et alia proclaim their organisation as the one and true repository of compassion for some of the non-human species. The other night I drove home behind a small station wagon. Caged in the back behind the bars on the rear seat, was a large German Shepherd. Unable to stand, it could and did move, involuntarily, at each corner and roundabout. At red traffic lights, I was tempted to get out and liberate the dog by opening the tail-gate on which was the sticker "Animal Liberation". (TF).

A FACT I bought a chicken in the street and hung it up to serve as meat; but when I came to view the bird, 'twas black and green and looked absurd. Was I despondent? Never - no - your *Wilhelmina's* never so, though I had lost my lunch, 'twas true, and wasted five and sixpence too. I sat me down and took a breath, thought fragrantly of Life and Death, of Strength and Grace and Love and Power, and so I mused for half an hour. Then up I rose, replete with calm, and softly sang the Hundredth Psalm; I gave the chicken to my mother and sallied forth to buy another.

CONTRIBUTORS to this issue: Pat Blackall, Kevin Cooper, Garry Cross, Harley Dadswell, Paul Gilchrist, Jim Gould, Mark Lindsey, Pat Macwhirter, David Madill, Bridget Muller & Garth Read - to all of whom many thanks.

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