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DANDER

June 2005

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<http://www.jcu.edu.au/school/bms/avpa>

President's Report

We are already progressing towards the second half of the year and for those working in the broiler industry you will already be planning for Christmas placements. The poultry industry typically becomes busy when the rest of the community is winding down.

This year after some considerable thought the executive decided not to have a Melbourne AVPA conference with the timing being in close proximity to that of the 13th Australian Poultry Convention at the Gold Coast. As we are a quality but low budget conference it was decided that lining up with the Poultry Convention at the Conrad Jupiters would restrict a lot of our members from attending.

The AVPA had a session at the AVA conference in May where Andrew Turner spoke on Avian Influenza (AI). This was a well attended session and I was reliably told that "there was standing room only".

As per normal practice in the alternate year we will align the AVPA conference with PIX in 2006. The year 2008 will be a big conference year as explained by the editor in this copy of Dander.

Current issues circulating in the poultry industry include the development of state legislation for the cage layer industry code to be implemented in 2008.

The Democrats are also looking at introducing a Bill which would empower Animal Welfare Organisations to have the right of entry to anywhere animals are kept. "This Bill is

designed to ensure animal welfare issues are dealt with consistently and seriously at a national level, rather than left to piecemeal, inconsistent and often unenforceable rules and regulations at state and territory level," Senator Bartlett said.

The successful challenge by Australian Pork Limited against Biosecurity Australia in regard to pig meat imports will also invariably result in a revisit to the final decision in regard to fresh chicken meat and shelled egg imports. The decision is expected in the last half of this year.

In November when the AI Exercise Eleusis gets underway it is expected that a number of our members will get some unexpected calls. Our senior industry representatives and government have spent many months now in organising this exercise.

The issues regarding our association with the AVA are still being worked on by the executive. One that has been resolved is that we are now called the Australian Veterinary Poultry Alliance. This has been approved by the AVA so they are happy and we are still called the AVPA. Someone will get the lucky prize at our next annual meeting in our naming competition.

I again thank the executive for the last 3 months and our demanding editor for his efforts.

Let us hope that the next 3 months is all full of positive events about the poultry industry.

Peter C. Scott

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The Australian Veterinary Poultry Alliance is a Special Interest Group of the Australian Veterinary Association. Membership of the AVPA is available to individuals and groups working in, or interested in, any veterinary aspect of poultry.

Dander will be published quarterly (March, June, September and December). Contributions are welcome. Electronic copy is requested. Deadline for copy is by the end of the second week of the month of publication. Please send information on abstracts of interesting papers, summaries of reports, case histories, social news etc. to Kevin Whithear, School of Veterinary Science, The University of Melbourne, 250 Princes Highway, Werribee 3030, Victoria <kevingw@unimelb.edu.au> fax 03 9731 2366.

Summary of Upcoming Scientific Meetings

August 2005	<i>14th World Veterinary Poultry Congress & Exhibition</i> , Istanbul, Turkey. Contact: Congress organiser: IT Consortium, Mete Cad. 16/11, 34437 Taksim, Istanbul, Turkey. Phone: +90 212 244 71 71; Fax: +90 212 244 71 81; Email: info@wvpc2005.org . Website: www.wvpc2005.org . August 22-26, 2005. Full scientific program now available.
October 2005	<i>Opportunities for village chickens to assist with poverty alleviation with special emphasis on the sustainable control of Newcastle disease</i> , Dar-es-Salaam, Tanzania. Fax: +258-1-477586; Email: sandcp@tropical.co.nz ; Website: http://www.kveemafoundation.org . October 5-7, 2005.
October 2005	<i>Australian Poultry Convention</i> , Jupiter Casino and Hotel Conrad, Gold Coast. Contact: Dr Vivien Kite; Email: vivien.kite@chicken.org.au . October 9-12, 2005.
February 2006	<i>Australian Poultry Science Symposium</i> , University of Sydney. Contact: Prof. T. Scott; Email: tcms@camden.usyd.edu.au . Website: http://www.vetsci.usyd.edu.au/auss . February 20-22, 2006.
April 2006	<i>PIX2006</i> , Gold Coast, Queensland 2-4 April 2006.
April 2006	<i>AVPA Queensland Conference</i> , Gold Coast, Queensland 5-6 April 2006.
August 2008	<i>23rd World's Poultry Conference and Sixth Asia Pacific Poultry Health Conference</i> , Brisbane Conference and Exhibition Centre. AVPA Contact: Dr Kevin Whithear; Email: kevingw@unimelb.edu.au . August 10-15, 2008.

Sixth Asia Pacific Poultry Health Conference

The 6th Asia Pacific Poultry Health Conference (AP6) will be held in conjunction with the 23rd World's Poultry Conference (WPC2008) in Brisbane 2008.

Poultry Health topics at the conference will be incorporated into the AP6 stream and this part of the Program, including a Plenary Session, will be organised by an AVPA Scientific Program Committee. While details need to be discussed and decided, it is probable that all delegates will pay the same registration fee and will be able to switch between sessions of their choosing. A conference on Marek's Disease in Townsville will follow WPC2008 and AP6.

August 2008 looks like being a very exciting month for conferencing, so all AVPA members are encouraged to start planning for it now.

MEMBERSHIP MATTERS

Thanks to all members who have renewed their AVPA subscriptions for 2005. If you haven't done so, please take out your chequebook now and make out a cheque of \$49.50 to the AVPA and post it to the Honorary Treasurer today. Sustaining members will be contacted individually about renewing memberships for 2005. A membership renewal form is on the back page of this edition of Dander.

New Members: We would like to extend a warm welcome to the following new AVPA members:

Colm Culligan, Wieslaw Demkowicz, Agim Shini, Shaniko Shini, and Wafa Shinwari.

Membership List (as of 29 June 2005)

If you have paid your 2005 subscriptions and your name has been inadvertently omitted from this list, please accept our apologies and contact the Membership Secretary ajturner@bigpond.net.au. In particular, some AVA members may have paid their 2005 subscriptions when renewing their AVA membership and the membership secretary may be as yet unaware of their identity. AVPA requests that members pay their annual subscriptions directly to AVPA rather than through the AVA.

2005 Financial Members: Robin Anderson, Edla Arzey, George Arzey, Caroline Ash, Trevor Bagust, John Barnett, Susan Bibby, Doug Blackall, Pat Blackall, Wayne Bryden, David Buckley, Graham Burgess, Eleanor Chaine, Peter Claxton, Peter Coloe, Kim Critchley, Peter Cowling, Colm Culligan, Mike Cundy, Peter Curtin, Wieslaw Demkowicz, Laurie Dowling, Elizabeth Evans, Peter Gray, Tom Grimes, Peter Groves, David Hampson, David Homer, Bob Hughes, Fakhru Islam, Clive Jackson, Rod Jenner, Noel Johnston, Bob Johnston, Wayne Jorgensen, Roberta Karparthy, Vivien Kite, Sanjeev Kumar, Phil Lehrbach, Margaret MacKenzie, Gina Micke, Krystyna Minkiewicz, Linden Moffatt, Robert Morton, Adam Naylor, Amir Noormohammadi, Sarah Plant, Barry Philips, Rod Reece, Bruce Remington, Grant Richards, Julie Roberts, Simon Robinson, Ambrosio Rubite, Peter Scott, Margaret Sexton, Agim Shini, Shaniko Shini, Wafa Shinwari, Via Sfetsas, Jillian Templeton, Andrew Turner, Greg Underwood, Aileen Vanderfeen, Steve Walkden-Brown, John Walters, Ben Wells, Kevin Whithear, Pam Whitley.

Life Members: Balkar Bains, Leon Barlow, Roger Chubb, Dinah Fry-Smith, Paul Gilchrist, Harvey Langford.

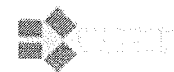
Please see the AVPA website for information on sustaining members and links to websites.

AVPA Sustaining Members 2005

Sustaining members contribute funds that help defray costs of services to members of the AVPA. We thank all sustaining members for their active interest and support.

Bayer Australia Ltd, 875 Pacific Highway Pymble 2073 NSW. (02) 9391 6218

Contact: Neil Cooper 0418 970 351 <neil.cooper.nc@bayer-ag.de>



Bioproperties Pty Ltd, 36 Charter Street Ringwood 3134 Victoria. (03) 9876 0567

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OzBioPharm

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Pace Farm, Locked Bag 800 Rooty Hill 2766 NSW (02) 9830 9800

Contact: Frank Pace fp@pacefarm.com

Sunnybrand Chickens, Pty Ltd Ewingsdale Road Byron Bay 2481 NSW. (02) 6639 6888.

Contact: Andrew Young



Sunny Queen, 1248 Lytton Road Hemmant 4174 Qld. (07) 3907 9999

Contact: Azi Laghai

Obituary

Vale Dr David Banks

The veterinary profession and AVPA lost a strong proponent of the livestock industries with the tragic death of David Banks. David died in the Lockhart River plane crash on 7 May 2005. David was within days of retirement and undertaking his last trip to the Torres Strait in reviewing the Northern Quarantine Strategy which monitors for the encroachment of diseases down the Indonesian Archipelago into Australia.

David worked for the Department of Agriculture, Fisheries and Forestry in Canberra and specialised in agricultural quarantine and biosecurity and played a significant role in national and regional animal health. David graduated from the Royal Veterinary College in 1975 having previously completed a Bachelor of Science degree from the same University. David completed a Diploma in Tropical Veterinary Medicine from Edinburgh University in 1976, obtained membership of the Epidemiology Chapter of the Australian College of Veterinary Scientists in 1983 and completed a PhD degree in epidemiology from James Cook University in 1985.

David had been Chief Veterinary Officer for Papua New Guinea and Manager for ACIAR projects in the Pacific when based in Fiji. David had an affinity for Commonwealth things and was Australian Delegate to the Commonwealth Veterinary Association for many years. David's work in the past few years was as General Manager, Animal Biosecurity, and Principal Scientist following the creation of Biosecurity Australia. The work entailed managing risk assessments and developing quarantine policy for the importation of animal products, assisting the exports of livestock with technical negotiations and assisting Australian animal health policy particularly in the development and maintenance of the Northern Australian Quarantine Strategy. David was an early person to realise the potential for an Animal Biosecurity Cooperative Research Centre and assisted with its formation and development.

David will be missed by his many friends and colleagues. He was a person who most liked working at the ground level and assisting others and it was this work that had him in the Torres Strait and on the plane that came down at Lockhart River.

Andrew Turner

(This Obituary contains some material posted on the Animal Biosecurity CRC website)

AVPA is now the Australian Veterinary Poultry Alliance

As reported in the previous edition of DANDER changes to the Trade Practices Act in recent times require any body using the terms 'Society' or 'Association' in their title to be incorporated. The National AVA is an incorporated body, can legally make contracts and can be sued for professional indemnity and liability. AVA carries the liability and indemnity for all Divisions, Branches and SIGs. On the basis of advice from its legal advisors and auditor, the national AVA has required SIGs, Divisions and Branches using the words 'Association' or 'Society' to change their name.

As is usual in a time of crisis, the AVPA membership rallied to the cause and provided a wide variety of innovative suggestions as to what we might be called in the future. After exhaustive deliberation, the Executive decided on replacing 'Association' with the word 'Alliance' thereby allowing us to retain the acronym AVPA. The AVA Board has approved the name change so henceforth we will be known as the AUSTRALIAN VETERINARY POULTRY ALLIANCE.

What's Your Diagnosis?

DANDER has introduced this new section to test the diagnostic acumen of our poultry disease experts. Thanks to Dr Amir Noormohammadi for providing the first case in this series. We look forward to receiving further interesting cases from the collective knowledge of the AVPA membership.

HISTORY

A young male bantam chicken from a relatively large backyard flock in regional Victoria was submitted for investigation of a respiratory problem. The recent history, provided by the veterinarian, included significant mortality and clinical signs of sinusitis and conjunctivitis in the flock. Medication with CTC, to suppress possible *Mycoplasma* infections, had apparently reduced but not eliminated the illness and mortality.

CLINICAL & GROSS PATHOLOGICAL FINDINGS

Clinical examination of the submitted bird revealed dyspnoea, open mouth breathing, coughing and discharge of mucous exudate from nostrils particularly upon compression of the infraorbital sinuses. Post-mortem examinations revealed a relatively good body condition, large amount of blood stained thick mucus within the right infraorbital sinus, multiple foci of yellow diphtheritic membrane in oropharynx (figure at right), a large patch of diphtheritic membrane over larynx and within upper trachea, and mucous exudates and streaks of blood within middle to lower trachea. Lungs and air sacs were within normal limit. There was no other significant finding.

SEROLOGY & CULTURE

Rapid serum agglutination tests for *M. gallisepticum* and *M. synoviae* and culture for *Mycoplasma* sp. and *Haemophilus paragallinarum* were all negative.



HISTOPATHOLOGY

Histological examination of larynx, trachea and oropharynx revealed sloughing of the epithelial lining, oedema, haemorrhages, infiltration of mixed inflammatory cells and fibrin coagulum in the lamina propria, and presence of necrotic cell debris, and inflammatory cells, syncytial cells and large clumps of bacteria in the lumen. Some of the sloughed epithelial cells and syncytial cells contained large basophilic intranuclear inclusion bodies.

DIAGNOSIS

Very severe necrotising stomatitis, laryngitis, tracheitis and sinusitis.

QUESTION?

What is your aetiological diagnosis and what test(s) would you order to confirm your diagnosis?

ANSWER ON PAGE 8.

Role of Biotechnology in Utilisation of Alternative Feed Ingredients for Monogastric Animals

Mingan Chocł Australian Poultry CRC

Abstract

Every 7.67 seconds the world gains three extra people and loses one hectare of arable land. The irony is the demand for agricultural land is on the rise as the world needs to produce enough food to feed its inhabitants. Chronic undernourishment affects some 800 million people, i.e., 17% of the population of developing countries, and 34% in sub-Saharan Africa. Increased agricultural trade and efficient utilisation of available food resources will be a key to the future food security of the world. With an increasing level of affluence in some countries, such as China and India, the shift of diets towards livestock products has been significant. For example, the average meat consumption in the developing countries has increased by 5-6% per annum over the past few decades (FAO, 2004). The driving force for the growth in meat consumption has been the monogastric livestock industry, in particular, the poultry sector, which has seen a threefold increase in per capita consumption since the 1960s. However, grain production is static while feed demand is rising each year. This disparity can only be addressed through significant gains in efficiency for utilising non-conventional ingredients and by-products.

The review discusses the type and availability of non-conventional or alternative feed resources, as well as technologies available to alleviate the nutritional constraints to these ingredients for monogastric animals.

The full paper was presented at the Alltech's Annual Symposium entitled "Nutritional Biotechnology in the Feed and Food Industries" in May 2005 and is available at www.alltech.com.

Editor's Note: Professor Mingan Chocł was awarded the Alltech Medal of Excellence at the Alltech 2005 Annual Symposium held in Kentucky in May. This address was given at the Symposium at which Professor Chocł received the award.

An Interesting Case of Infectious Stunting Syndrome (ISS)

George Arzey, NSW DPI, Elizabeth Macarthur Agricultural Institute, Camden NSW

In March 2005 I encountered one of the most depressing flocks of pullets, I have seen for many years. I have known the owner for a long time and admired his talent to think positively. This case would stretch his talent to the limit.

The owner and I were in total agreement as to the clinical picture. Depressing indeed! Across all ages, large % of birds could be found with a significant suboptimal growth rate. Mortality was not an issue and generally the birds appeared in good health. Anorexia was not a problem as the birds were eating and chatting and the faeces appeared of normal consistency.

The owner already searched his soul, his records, the management, the formulation of the ration and the mixing. Not a clue!

Birds submitted to the laboratory at EMAI. At 6-7 weeks the combined weight of 6 pullets was 565 grams with one bright chirpy chick obtaining the glorious weight of 60 grams at 6 weeks of age. The birds that were examined had no body fat and exhibited severe bursal and thymic atrophy. Proventriculus was slightly enlarged but not typical of infectious proventriculitis and stunting. The pancreas was desparately normal. Gizzard erosions were observed and regarded as significant. Mild proventriculitis was evident and serology and bursal pathology indicated mild changes possibly consistent with mild Infectious Bursal Disease.

Histopathology generally indicated intestinal changes considered by Dr Reece, the pathologist, to be consistent with the enteric form of Infectious Stunting Syndrome.

As an act of sheer desperation, delving into the magical sphere of veterinary science or perhaps a clinician's sixth sense, before it became evident that ISS was a possible culprit in this flock I suggested to put the flock on multivitamins in the water. I was relieved that I suggested this treatment before ISS was pronounced as I suspect that following the verdict I would not have this degree of blind faith in multivitamins.

The literature indicates that supplementation with high doses of vitamin A, D and E may reduce the severity of

secondary manifestations of the syndrome but multivitamins are not listed as a recognised therapy. Some amelioration perhaps but not a miracle cure.

Following the laboratory verdict I held serious concerns that this particular enterprise could not easily mitigate the ISS. The severity of the growth suppression indicated that possibly infection at a very young age was a likely epidemiological feature. The possibility of vertical transmission could not be ruled out.

This possibility induced several palpitations into the chest cavity of the owner.

The owner with some input from me devised an intriguing quarantine system to reduce the risk of horizontal transfer of the agent during the critical first weeks after hatch. Considering the fact that the entire enterprise, breeders, hatchery and pullets occupy less than an acre our quarantine system could be described as immensely optimistic.

Vertical transmission? This was a topic to be avoided in order to preserve the integrity of the owner's heart.

The owner was immensely proud of the construction and took steps to prevent the spread of the agent. Still shivering with anxiety over the future of the enterprise he continued to follow my desperate advice and provided the entire farm with access to multivitamins in the water 3 days per week.

Circumstances prevented me from visiting the farm in the next few weeks but over the phone I definitely could hear an optimistic tinge in his voice informing me that the 2 week old birds appear normal. Alas, we both agreed that it was too early to burst into a song and dance.

Four weeks later I visited the farm to be greeted by a big smile and shiny eyes. He was back to his normal nicotine input. It works He whispered. Or was it a scream?

I was not quite sure exactly what was working and why. We ventured into the sheds.

The 10 week old birds with individual birds previously weighing a mere 60 grams (at 6 weeks) managed to shrug off the ISS verdict and appear almost normal. The young 4-week-old pullets appeared normal weighing approximately 175-200 grams.

I scratched my eyes in disbelief. Is this the magic cure for ISS? Multivitamins?

A sincere sense of disbelief crept and mingled with this incredible outcome?

This was too good to be true. This was a miracle. Do I believe in miracles?

It was possible (with some difficulty) to argue that the quarantine measures under which the new batch of pullets were raised prevented/reduced ISS in the critical period but the reversal of fortunes in the 10 week old pullets where ISS was previously diagnosed and where multivitamins rather than quarantine was the treatment was indeed perplexing.

Epilogue

Several days later, the farm was visited by the Rep of the company that supplied the Premix that was incorporated into the ration. The owner was informed that during the printing of the label an error occurred and as a result instead of the usual instructions advising to incorporate 2 packets per tonne of feed, the label advised only 1 packet per tone of feed.

The owner muttered: "Why did I read the label"? Never again! I am still pondering the role of multivitamin deficiency in the production of ISS and its cure.

The intestinal pathology described by Dr R Reece included: hyperactive crypts with some abscessation, some dilatation of the crypts, **increased mitosis**, excess mononuclears in lamina propria and general cellular infiltrates. Also villus atrophy. Most of the B group vitamin deficiencies produces anorexia rather than chirpy appetite, some nervous or other clinical manifestations and the pathology described in Dis of Poultry 11 Ed lists **decreased** mitosis, and some crypt dilatation. In cases of Pantothenic acid deficiency lymphoid depletion occurs in the bursa and thymus. Both organs were described in this case with severe atrophy consistent with stress and ISS. Vitamin A,D and E deficiency is generally manifested as malformation of bones, muscles, respiratory, nervous systems and the skin. None were a feature in this case.

While the pathology is indeed more consistent with ISS than vitamins deficiency, the 'magical' response to multivitamins in the water across all age groups of pullets on the farm is intriguing indeed.

As a father of 3 charming daughters I quickly learned to accept inconsistencies as part of a constant enduring strive for blissful harmony.

Perhaps I should not seek consistency in this case.

Problem solved!

Answer to What's Your Diagnosis?

Infectious laryngotracheitis virus was identified by polymerase chain reaction (PCR).

Subsequent examination of the tissues using PCR and restriction fragment length polymorphism at the University of Melbourne, School of Veterinary Science showed that the infecting ILT virus was distinct from Australian vaccine strains SA2 and A20.



The Australian Veterinary Poultry Alliance

Tax Invoice

ABN: 63 008 522 852

Application for New or Continuing Membership

Please note – continuing members need only complete details if these have changed

Name: _____

Phone: _____

Employer: _____

Fax: _____

Address: _____

Mobile: _____

Email: _____

Qualifications: _____

Special Interests: _____

Are you a member of the Australian Veterinary Association? YES/NO

(Note: Membership of AVPA does not provide membership of AVA).

Membership fees are due by the 31st January, 2005

The annual membership fee is \$49.50 (inc GST) for individuals

Please find enclosed cheque made out to the Australian Veterinary Poultry Alliance for the current year. PLEASE NOTE: DO NOT SEND AVPA MEMBERSHIP FEES DIRECTLY TO THE AVA OFFICE. THEY SHOULD ONLY BE SENT TO THE AVPA TREASURER

Signed: _____

Date: _____

Please return the completed form to:

Dr Amir H.Noormohammadi

The Treasurer

Australian Veterinary Poultry Alliance

250 Princes Highway, Werribee 3030 Vic