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SEPTEMBER 2001

### Greetings

The 61st Annual Conference was held at Lincoln University in June and was attended by 90 registrants. Since I was the head of the local organising committee, it feels way too weird to go around handing out congratulations on how good it was but I would like to thank all of the hard working people around me.

I for one was visibly shaken by the speed at which we got through the AGM. Sixty minutes was allocated and it was all done in 58.75. Superb chairmanship by the president and a challenge for the new committee. During that period I got elected to Editor of this Newsletter. You may note that unlike the previous honest and loveable Newsletter editor I often use a touch of sarcasm, and I'm neither honest nor loveable.

The Monday evening saw us all gathered in the nice warm Rossendale winery listening to a provocative mixture of fact and fiction, opinion and marketing. Some were aghast at the tongue-in-cheek comments of Brent Rawstron, one time Meat New Zealand director, part time ideas man and full time stirrer. Indeed some were so aghast and shocked that they did not even sample the foods or drink the wines that were on offer! (that was sarcasm – get used to it!). This was followed by a brief oration by George Davis and ceremony conferring life membership upon Mac Hanna, who unfortunately due to ill health, was constrained in his response. Perhaps I can add a comment for Mac. When the rest of the membership was trying to learn how to unsubscribe from our listserver, Mac calmly sent me an email from an internet café on the Queensland coast. I am so phobic I have never used an internet café, Mac is too much of a technophile not too!

We were treated to an absolutely excellent meal for the dinner, the menu for which was inspired by the Novel species and products contract session. Rather than an after dinner speaker we had another awards session, this one to 'appropriately' reward the people who make conference organisation somewhere between interesting, amusing and downright annoying.

There was discussion at the AGM on the vast numbers of people who are not paying their subs, and perhaps don't want to be members any more. Then we welcomed a whole stack of new members. Everyone on the committee is under forty years of age (give or take a few years of experience), so we are pretty young and vibrant team. John Smith, one of the more experienced members of the team told us that we have pretty large sums of money in the bank. I guess I look at things differently to many people. Maybe it is analogous to the stages of life; you could be young with no money and just enjoying life like a student, or middle-aged well off and feeling secure or elderly going-on super annuitant wringing your hands and worrying about the doom and gloom of the future. Now that NZSAP is over 60 years old we are obviously not young and care free, but I think the Society is at least a few years off retirement. Let's enjoy the good times.

Please check your NZSAP membership subscription is current. The number in the top right hand corner of the address label on this newsletter indicates the year that you last paid your subs, and it is giving some of the committee members grey hair (well something is). Payments to NZSAP and sent to Lynne Smith, Executive Secretary will ensure your copy of the 2001 Proceedings.

*Scobie*

## AWARDS RECIPIENTS 2001

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### McMEEKAN MEMORIAL AWARD:

The McMeekan Memorial Award for 2001 was presented to **Dr Tom Broad** and **Dr Allan Crawford** for their input into the Sheep Gene Map. The recipients were key instigators of much of this work world-wide and have made a major contribution through their leadership. Dr Broad headed the physical mapping approach while Dr Crawford did the same for linkage mapping. The two approaches are complementary and together create the Sheep Gene Map. The creation and subsequent updating of the map is a major international effort involving many people in a number of different countries. The sheep map is one of the key resources used in systems to identify genes involved in traits of importance in animal production. Both scientists are taking the process further and applying it to the real situation. For example Dr Broad is using the Sheep Gene Map to search for the location of the Carwell muscling gene in sheep, while Dr Crawford is using a similar approach to search for genes associated with resistance to internal parasites. Dr Broad has published as author or co-author 25 articles on gene mapping from 1995 onwards while Dr Crawford has published 28 articles. Dr Crawford is the Leader of the Animal Genomics programme in AgResearch. Dr Broad has had a key role in the International Society of Animal Genetics (ISAG) over the last few years and was co-convenor of the highly successful ISAG Conference held in New Zealand in 1998.

### LIFE MEMBERS AWARD:

**Michael McRae Hanna** better known as "Mac", farmed a hill country sheep and beef cattle property near Tokoroa. Raised in Wellington city, Mac's first encounter with farming was through his many relatives who had farms. Although he had no formal training in science, Mac could be aptly described as a scientist who earned his living as a farmer. In the early 1990s when few farmers had computers, Mac had three.

In the early 1980s he had MAF rate of pasture growth trials on his farm and these became an important tool for the management of his livestock. However, he was concerned that the direct method of pasture measurement was tedious, labour intensive, and slow. The advent of the SPOT and Landsat Earth satellites with their apparent ability to report on green biomass using optical radiometric sensors alerted him to the possibility of using optical-sensing techniques at ground level. To find out more about this technology, he phoned NASA and was sent a number of scientific papers on the subject. He worked with engineering staff at Ruakura to develop a prototype pasture radiometer. Mac sold his farm in 1996 and moved to Whatawhata to further develop his radiometer and two years of included weekly pasture measurements to validate his radiometer. In 1999 a paper titled 'Estimating biomass for New Zealand pasture using optical remote sensing techniques' authored by M.M. Hanna, D.A. Steyn-Ross and Moira Steyn-Ross, was published in *Geocarto International*. In a fitting gesture, his work was informally recognised by these colleagues at Waikato University by the award of Doctor of Grass.

At the NZSAP conference at Lincoln in 1992 Mac told Invermay scientists that he suspected his flock had the Inverdale gene. He subsequently sent some ewes to Invermay and it was later shown that there was a single gene segregating in his flock that had the same effect on prolificacy as the Inverdale gene. He presented a paper at the 1995 NZ Society of Animal Production conference titled 'Living with the Inverdale gene (FecX) in a Romney flock'. Although Inverdale sheep and Mac's sheep had the same phenotype, there are actually two quite separate mutations. The Hanna allele has been named in his honour.

Mac had also noted he was not getting the expected animal production level from his feeding system. From this observation grew his interest in the effects of mycotoxins on animal performance and drew him to collaborate with the mycotoxic diseases group at Ruakura. Mac insisted that his stock were suffering from phyto (myco) –oestrogen effects in the spring as well as in autumn and challenged the accepted dogma on the seasonal (autumn) effect of these substances. He was eventually proved correct by findings of oestrogenic fungi in his spring pasture. In this field, Mac was ahead of his time because the specific assays were not developed until after his retirement.

A few years ago Mac wrote in the Society's newsletter "... were I offered a rerun of the last 50 years I would play the game much as the first time round with a couple of major differences. One would be that I would pay much closer attention to those scientists working in areas of interest to me. Translated into practical terms, for the present context this means I would join the likes of the NZ Society of Animal Production earlier in life and be much more involved in listening to, and asking about, the messages delivered." So members, see if that will attract some new recruits to membership.

## **YOUNG MEMBERS AWARD:**

**Sarah Johnston** was the winner of the Young Members Award. Sarah's paper was titled "Gamma-glutamyl transpeptidase and amino acid transport for milk protein production in vivo" and the authors were S.L. Johnston, N.C Roy (AgR Grasslands), S.R. Davis (AgR Ruakura), J.W. Tweedie (Institute of Molecular BioSciences, Massey University), K.E. Kitson (Institute of Food Nutrition and Human Health, Massey University), and J. Lee (AgR Grasslands). Sarah is a PhD student with the Nutrition and Behaviour group at AgResearch Grasslands but as you can see her supervisors come from all over. Sarah completed a BSc and BSc (Hons) majoring in Biochemistry/Molecular Biology at Massey University. Sarah considers herself to be a biochemist rather than an animal scientist, would like to do some post doctoral studies overseas and she would like to focus on human health or forensic science in the future. (A brain drain from New Zealand and NZSAP but we wish you well - Ed)

## **JUBILEE UNIVERSITY AWARDS:**

Jubilee University awards are given to the leading third year undergraduate students in Animal Science during 2000 at the two Agricultural Universities.

Massey University Student Award: Teresa Soppet  
Lincoln University Student Award: Mark Stevenson

## **NOTE FROM THE PRESIDENT**

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To engage in politics, promote animal production science, adapt to the needs of farmers – these are some of the constant thoughts we may have about the future of our Society. Mac Hanna, awarded Life Membership at our Lincoln Conference, suggested we should make farmers more welcome in our scientific environment. Along with farmers, perhaps we also need to think about how we can make the Society more attractive and beneficial for younger members. Do we need student/post-doctoral input to our Management Committee, as some scientific societies do?

There is agreement that science is our strength and to provide a forum for unbiased and critical presentation and publication of results should remain our focus. However, it is increasingly obvious that our ability to do that depends on many things such as politics, funding, and the relationships we may have with other scientific disciplines. Consequently, the Management Committee has agreed to support the Primary Resource Advisory Committee of the Royal Society of New Zealand. This committee, convened by Jacqueline Rowarth, aims to promote the importance of New Zealand's primary sector, underpinned by research-based innovation, to the nation's future economic and social well-being.

The Royal Society is also investigating how it can better serve its constituent organisations, and how we can work together as a voice for science and technology. A feature is the potential for greater interdisciplinary interactions and this is also evident in the Report of the Royal Commission on Genetic Modification. Among the recommendations are requirements to assess the ecological, social, economic, ethical, cultural and spiritual impacts of biotechnology. As noted recently, the future of science will be increasingly "democratically modified" requiring a range of skills and methods alien from our traditional disciplines. In order to do this, it is suggested that the Society continues to explore the benefits of liaisons with groups such as the Royal Society of New Zealand, while at the same time retaining our traditional focus of animal production science.

*Mark Fisher*

## **NZSAP ANNUAL CONFERENCE 2002**

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The 62<sup>nd</sup> Annual Conference will be held in Palmerston North at the end of June. Plans for the event are already in progress and the convenor would welcome suggestions and volunteers. Don't be slow, we need a good idea of what is going to be by the time the "October Newsletter" comes out. Given that this is the "July Newsletter" you might as well wait by the post box for the call for abstracts!

*Annette Litherland*  
Conference Convenor  
annette.litherland@agresearch.co.nz

## **OBITUARIES**

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Associate Professor **A B (Bruce) Robson** died at home in Christchurch suddenly on 25 October 2000 aged 55. Bruce obtained bachelors and masters degrees in physics from the University of Canterbury. He worked from 1982 as an applied statistician, as a computer analyst-programmer and as a lecturer in statistics at Lincoln University. During this period he did a mathematical modelling PhD in animal science, modelling whole body magnesium metabolism in sheep from basic physiological studies. Bruce played a significant role in the initial development of the Applied Computing and Mathematical Modelling streams in degrees, and provided teaching in this area for the physiological sciences at Lincoln University. He was passionate about science and mathematics and their importance in education. This led to his extensive involvement with Science Alive in Christchurch. He championed research and scholarship, constantly raising this issue as staff research time became eroded by increasing teaching demands. He was enthusiastic about the role of a university as a place where people should receive a genuine education preferably in a broad range of disciplines. In particular he had a love of the wordsmith's trade, always being able to provide from the English language the precise word inevitably available to provide precise description.

*Andrew Sykes*

One of our Honorary Life Members, **Alan Henry Kirton**, died on 25 July 2001, aged 68 following a long battle with cancer. Alan gained his B Agr Sc (1956) and M Agr Sc (1958) from Massey University, a PhD in Food Science (1962) from Michigan State University and a D Sc (1984) from Massey University. Alan's career in science began with MAF in 1963 and ended with retirement from AgResearch in 1998. Alan's contribution to meat science in New Zealand and internationally was enormous. He was internationally renowned for his expertise on growth, development and meat quality of farmed animals, contributing over 270 publications in his field of work. Alan's contribution to the advancement of animal sciences was recognised by the award in 1998 of the Hutton Medal by the Royal Society of New Zealand. His achievements had earlier gained him an MBE (1994), the Research Medal of the New Zealand Association of Scientists (1972), Fellowships of the Royal Society of New Zealand (1991) and of the New Zealand Institute of Agricultural Science (1975).

Alan was a strong supporter of the New Zealand Society of Animal Production having contributed to 42 papers published in the Conference Proceedings. He served on the Committee for eight years, including three as Secretary/Treasurer and Honorary Life Membership of the New Zealand Society of Animal Production (1997). His Presidential Address in 1975 resulted in a request from the Director-General of Agriculture for a copy within an hour of presentation. Public servants were not supposed to criticise other Divisions of the Department and the address had contained implied criticism of the Meat Division.

The "Kirton Wing" building at Ruakura will be a lasting memorial to a caring colleague who strove to improve the standing of science and scientists in New Zealand and the meat industry in particular.

*Roland Sumner and John Smith*

## **NZSAP CD-ROM**

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The CD-Rom of the complete set of conference proceedings from 1941 to 2001 (Vol. 1-61) is now available to members at the cost of \$20 and to non-members for \$120. This is outstanding value as the cost of purchasing the last 3 years proceedings is currently \$160. This is a chance to have the complete set of NZSAP conference proceedings on file. The CD-Roms are available from the Executive Secretary, Lynne Smith. For those of you that already have the CDs, you can replace your 1986 - 2000 disk with the 1986 - 2001 one for \$10. **We would like to point out that you cannot purchase the 1986 - 2001 disk at the replacement price unless you already have the 1986 - 2000 disk!**

### *Copyright*

The copyright provisions on the CD are the same as those on the bound copies of the proceedings. You can copy articles for your own personal use and create reprints of your papers to send to others. It may be more convenient to electronically mail a pdf file in response to reprint requests. A severe breach of copyright for example would be the printing of multiple copies of the proceedings to sell them in competition with NZSAP and would precipitate legal action!

## CD-ROM CHAMPION REWARDED

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A special "surprise" presentation made to **Neville Jopson** at the 2001 Conference of The Association for the Advancement of Animal Breeding and Genetics (AAABG) in Queenstown. A "mounted CD-ROM" in a frame similar to that which recording artists receive. This was a token of the appreciation of the Management Committee for Neville's production of the inaugural CD-ROM covering Volumes 1 to 60 of the Societies Proceedings. (Neville is such a hard working fellow he was unable to attend the 2001 NZSAP Conference in view of his commitments editing the AAABG Proceedings.) Neville has also facilitated the manufacture of emergency copies of a couple of the more popular Occasional Publications to fill dozens of back orders, and has now updated the CD to include this years proceedings.

## GOODBYE AND THANKS FROM THE PARTING PAST-PRESIDENT

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To the incoming Management Committee

I offer my best wishes to the incoming NZSAP committee and encourage you to rise the challenges provided by the changing research environment. I enjoyed my time on the management committee and working with you made me realise the large load carried by the stalwarts. Thank you to you all, and Lynne, for the support given during my time in office.

I can't resist the opportunity to give you some parting advice. The situation is not so dire that we must combine with another Society. By the use of joint sessions with a variety of kindred Societies we can retain a viable conference. Occasional cuddles with other societies will be fine and the future will be brighter if a scientific focus is retained by cooperating with other specialist science bodies - Biochem, Endocrine, Physiology, Genetics, Vet, Nutrition Societies etc when convenient.

Some of the papers at recent conferences have been very light on new information. I encourage you to police that aspect. Also I would like to see more longer presentations (invited if necessary). Also continue to create your own special interest sessions by inviting outside speakers.

Get on with producing Occasional Publications or else the only reason for the Society is to hold conferences and hand out awards. In the current environment this will best be done by contracting and paying authors to deliver - Agmardt and FRST fund these activities. Don't get involved in politics, instead support the Primary Industry grouping (that Graham made contact with). It will have the necessary critical mass and political animals.

Best of luck  
*Andy Bray*

## ANIMAL SCIENCE AWARD REPORT

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Dr **Nicole Roy** from the Nutrition and Behaviour Group of AgResearch Limited attended the 9<sup>th</sup> AAAP and XXIII ASAP Conference held in Sydney (Australia) in July 2000. Nicole presented two papers at the conference. The first was entitled "Net fluxes of amino acids across the portal-drained viscera and the liver of pigs fed a diet adequate or deficient in lysine" and the second was entitled "Whole-body and splanchnic irreversible loss rate of cysteine in pregnant and lactating ewes supplemented intravenously with cysteine". These were the first presentations that Nicole has given at a conference since joining the Nutrition and Behaviour Group of AgResearch in August 1998.

The meeting also allowed Nicole to gather information in relation to the importance of antibiotic resistance and alternatives to antibiotic usage for prevention and treatment of diseases. There was a workshop on that topic convened by Dr M.D. Barton from the School of Pharmacy and Medical Sciences based at the University of South Australia in Adelaide. During this session, several reasons to be concerned about the use of antibiotics in animals as a preventative strategy were discussed. Widespread resistance that has developed in bacteria of animal origin has restricted the range of effective antibiotics that can be used for therapies and prevention against infectious diseases in animals. Moreover, transfer of resistance to pathogenic bacteria infectious to humans is becoming an alarming issue and shows that overuse and misuse of antibiotics in animals does impact directly on human health. Alternatives to antibiotics such as organic acids, prebiotics, probiotics, enzymes, vaccines and competitive exclusion products were also discussed during that session. This information is relevant to the research done by the Nutrition and Behaviour Group and to New Zealand animal production and animal science.

## ANNUAL SUBSCRIPTIONS AND MEMBERSHIP

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### **\*\* MEMBERSHIP FEES \*\***

#### **Members: The 2001 annual subscription is now overdue!**

For full members from New Zealand and Australia the fee is NZ\$55.00 (reduced to NZ\$27.50 for students and retired members). Members residing overseas (except Australia) pay US\$55.00.

A personal membership fee invoice for those who have not paid is enclosed with this newsletter. So please return the form with your payment. Students must have the form signed by their academic supervisor.

### **\*\* CREDIT CARD PAYMENT \*\***

NZSAP now has the facilities to accept payment via credit cards.

**VISA and MASTERCARD** only.

This can be done by submission of the **Name** on the card; card **Number**; card **Type** and card **Expiry Date** by either mail, fax, or E-mail to the NZSAP Executive Secretary detailing what and who the payment is for and including contact postal addresses and phone/fax numbers etc.

**CARD SWIPE** facilities for these two cards also exist and will be available at future meetings.

Payment by Electronic transfer is also available to some clients. These are only accepted under strict conditions. Please contact Lynne Smith for further details.

**Non-members:** An invitation is extended to those involved in the field of Animal Production to apply for membership in the New Zealand Society of Animal Production. The Society is concerned with all aspects of Animal Production and in particular:

- promoting communication and collaboration between those involved in animal production;
- promoting the application of sound practices in animal production;
- promoting the scientific study of animal production;
- holding a regular conference as a forum for presentation of technical and applied topics in animal production; and
- publishing conference proceedings and other occasional publications relevant to animal production.

Application forms can be found on the society web site:- <http://nzsap.rsnz.govt.nz> or from a member of the committee.

## MEMBERSHIP

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The New Zealand Society of Animal Production warmly welcomes the following 14 new members:

Alexandre Chaves	Palmerston North	Graham Duirs	Hamilton
Geoffrey Asher	AgResearch, Invermay	John Moffat	Upper Hutt
Anna Campbell	AgResearch, Invermay	Rebecca Weed	USA
Craig Anderson	AgResearch, Palmerston North	Maria Thielen	Dexcel, Hamilton
Chris Glassey	Dexcel, Hamilton	Aaron Meikle	Gore
Wybe Kuperus	Dexcel, Lincoln	Chris Logan	Lincoln University
Mhairi Sutherland	Dexcel, Hamilton	Maria Tolosa	Massey University

Resignations were accepted from 6 members, leaving a current membership of 539.

## UPCOMING EVENTS

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Events are listed on the Royal Society Events Calendar see <http://www.rsnz.govt.nz/news/events/index.php>

**B2B2B: bio-science to bio-enterprise to bio-business** University of Waikato, 16 Nov 2001. For more information contact: Mrs Gill Sutherland, Royal Society of New Zealand, Wellington Tel: (04) 470 5784; email: [sutherland.g@rsnz.govt.nz](mailto:sutherland.g@rsnz.govt.nz)

**Massey Dairy Farmers Conference** Convention Centre, Palmerston North 8-10 May 2002. For more information contact: Diane Crow, Mail Code 435, Massey University, Private Bag 11-222, Palmerston North

## BAD NEWS FROM GOOD SCIENCE

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The whole reason behind the Media session at this years conference was to give you an idea of how you should formulate your approach to the media. I later came upon what I see as a terrible piece of journalism. I am not going to tell you where it came from and I do not know who wrote it, but to me the heading was somewhat ironic.

### ***“Flystrike is bad news***

*Flystrike incidence is directly related to the degree of dagginess in lambs. Eggs are laid in the dags and the developing larvae feed on the waste products and on the live lamb.*

*Flystrike reduces animal production by leading to insecticide contamination, reduced wool quality, animal death, and delayed lamb finishing through a significant loss in animal condition. All have a serious effect on farmers’ ability to meet contract obligations and specifications of quality and timing, and therefore on profitability. Weight loss in flystruck lambs results in them having to be kept longer on-farm, incurring an additional cost to the farmer. Fly damage can cause losses of up to one kilogram of wool and two thirds of the pelt value.*

*Cleaning and treating an affected lamb is not only an unpleasant ask, it is also time consuming and requires additional costs for treatment. In addition, the identification of affected animals is not easy, especially on larger properties.*

*Very recent research has suggested that measures aiming to provide protection against flystrike, reduce insecticide residue levels in meat and wool, and meet lamb-finishing requirements, may be achieved through integrating chemical control and effective pasture management. Crops like birdsfoot trefoil offer positive pasture management options towards meeting these needs.”*

As an article in a farming magazine, the first 5 sentences have a striking resemblance to a fact sheet for grandmothers on the consequences of egg sucking. Sentence six comes up with some quantities and values that are useful. Sentence 7 reverts to something even non-sheep farmers would know about flystrike, while sentence 8 is debatable – identifying the struck animals is easy for experienced shepherds finding the sheep is the challenge. Finally we get to the last paragraph where there are some topical, interesting messages and all importantly some real gems that research has to offer.

As an abstract for a conference the article would be fine if it contained some data and probability values, similarly it would be good as part of a fact sheet for lifestyle farmers running sheep. Real sheep farmers would quickly move to the next article after the first sentence.

An alternative would be to start with the final paragraph, then use sentence 6 and then fill about the same amount of space on other recent research examples rather than an account of laymans knowledge about flystrike. Otherwise it is not just “bad news” it is no news at all.

Anyway, send me some articles for your Newsletter. I will try to resist the urge to mark them out of 20 and return them.

Scobie  
Newsletter Editor

## MANAGEMENT COMMITTEE

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The current Management Committee is:

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An electronic version of this newsletter and other information on the Society is available at:

<http://nzsap.rsnz.govt.nz/>

Any contributions to the Newsletter should be forwarded to: David Scobie, AgResearch, PO Box 60, Lincoln. Email: [scobie@agresearch.co.nz](mailto:scobie@agresearch.co.nz)

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