

The environment in which the Society operates in has changed vastly since it was first formed during the Second World War. The industries we are primarily interested in have undergone huge changes (some, such as the deer and aquaculture industries, didn't even exist back then), the state of scientific knowledge and scientific tools available to investigate animal production have advanced massively, and the science and education systems that many of the society's members work in have changed markedly. But remarkably, the basic products that we are interested in have changed little over that period, and the objectives that the Society was set up to assist are also just as relevant today as they were over 60 years ago.

These objectives, to paraphrase the Society's constitutional policy, are:

- To bring about collaboration between those involved in the science of livestock production, including the annual conference to facilitate this;
- To assist young people to develop in science, and to promote the value of science in of livestock production.
- To provide visions for future animal production and foster improved animal production in New Zealand.

NZSAP has a well established pattern of operation, and this has been proven over time and the Society has done a great job of serving its objectives. However, arguably the Society does face threats, and we can't take for granted that we can always continue using exactly the same recipe and get the same successful result. For instance, the number of papers contributed to our annual conference has declined in recent years, and along with that we have had fewer registrations for conferences. We need to understand why this might be happening, and whether we can do anything to arrest and reverse this decline. This decline is important, not only for our active members who might contribute to conferences, but also for our membership whose primary benefit is access to the valuable information that the proceedings contains – we need to ensure that this is still good value and a path by which science results can find their way to application in commercial livestock-based businesses.

No doubt there are external drivers that are important and we can not always influence these. But the Society needs to look carefully at whether there are any tweaks to the NZSAP operating model that can be made to better suit the modern environment. One such discussion that the management committee is having at the moment is whether there are better models for our proceedings whereby we can retain the strengths of what we currently do, but also provide more encouragement for people to submit papers to the proceedings for the conference. Before this has the traditionalists up in arms, let me emphasise that this is only discussion and the issues for the Society are complex. The management committee may well decide that no changes are required. Alternatively, if the committee thinks that some tweaking of the model is warranted, this will not be rushed through or done behind closed doors. We would envisage a discussion of alternative models among members at the 2009 AGM, but any formal changes would be unlikely to occur before 2010 AGM, and then only if the majority of members are agreeable to any suggested model which might be put forward. The proceedings are the lifeblood of the Society, so we need to make sure that whatever model the proceedings operate under (whether the current model, or a slightly changed model), we are achieving the best result for the Society objectives and our members. Rest assured that the management committee will not suggest change simply for changes sake, but that the committee is doing its best to actively and pro-actively work to remain relevant to the Society's core objectives.

Jason Archer
NZSAP President

NEW ZEALAND SOCIETY OF ANIMAL PRODUCTION CONFERENCE 2009

Come and present your research findings to your colleagues at Lincoln University from 24-26th June 2009. Planning is already well under way for the 2009 conference and the local organising committee promise to provide an action packed programme addressing issues facing NZ agriculture. The programme will include a field trip to two large scale agricultural operations within 20 minutes of Lincoln. If all papers are submitted there will be 8 sessions – 2 dairy, 2 sheep production, 1 climate change, 1 genetics, Young members and a Miscellaneous session. SIL are planning an industry workshop for the Thursday afternoon following their contract session. We are also investigating the opportunity of joining with SIDE on the morning of 24th June for a joint dairy session. Social events are being planned for the Wednesday and Thursday night so put these dates in your diary, start working on those abstracts and come and join us at Lincoln University in June 2009.

2009 ANNUAL GENERAL MEETING

The 69th Annual General Meeting of the New Zealand Society of Animal Production Inc. will be held on Wednesday 24th June 2009, from 4.00pm to 6.00pm.

Agenda

Apologies
Minutes from 2008 Meeting
Matters Arising
Presidential Report
Treasurer's Report
Editor's Report
Publication Manager's Report
Election of Officers
Next Conference
General Business

Signed: Executive Secretary

NZSAP WEBSITE

Details of next year's conference are available on the website at
<http://nzsap.org.nz/con09/index.html>

Papers from last years Conference can be viewed on the website as well as information about Awards and Grants. Past Newsletters can also be retrieved. Please let Scott know if you have any news that you think is relevant to NZSAP and should be posted on this site.

VERY IMPORTANT NOTICES

1. YOUR SUBS ARE NOW **OVERDUE** – IF YOU HAVE A YELLOW SHEET INCLUDED IN THIS NEWSLETTER – PLEASE SEND THEM TO JANE KAY, EXECUTIVE SECRETARY ASAP

The opinions expressed in this Newsletter are those of the author and not necessarily those of the NZSAP.

WOULD YOU LIKE TO RECEIVE YOUR NEWSLETTER BY E-MAIL? _____

To reduce demand for paper and therefore free up more land for conversion from trees to dairying, we are now offering you the opportunity to receive a nice crisp PDF of our newsletter delivered to your Inbox!

If you'd prefer to get your newsletter the modern way – just email Jane Kay, Executive Secretary at nzsap.animal@xtra.co.nz and she will make it so.

NOMINATIONS FOR MANAGEMENT COMMITTEE 2009-2010 _____

Nominations for committee members are requested by April 22nd, to the Executive Secretary. The nominee, nominator and seconder must be members of the Society. The committee will be elected by postal ballot with the result announced at the Annual General Meeting, except that the Vice-President automatically becomes President, and the current President automatically becomes Immediate Past President.

The management committee consists of the following:

President	Vice-President
Immediate Past-President	Secretary
Convenor of the Conference Organising Committee	Publications Manager
Treasurer	Website Manager
Editor of Proceedings	Newsletter Manager

All offices except the President and Immediate Past-President are open for election.

Presently the committee meets three times a year, immediately before and after the Annual Conference and once in December to evaluate abstracts of papers submitted for presentation at the next conference. In addition to that it holds two or three telephone conference calls each year. To understand how the various officers contribute to the strategy and operations of the Society, speak to current and past committee members.

To nominate somebody for a position on NZSAP Management Committee, please send the following to the Executive Secretary, Jane Kay:

- Position
- Name of Nominee (Printed) and signature of Nominee
- Proposer (Print name) and Proposer's signature
- Secunder (Print name) and signature of Secunder
- Date

MEMBERSHIP _____

A warm welcome on behalf of NZSAP to our new members:

SAN JOLLY, AUSTRALIA

JON TANNER, WELLINGTON

KIRSTY HAMMOND, AGRESEARCH GRASSLANDS

PETER HUTTON, MASSEY UNIVERSITY

SARAH PAIN, MASSEY UNIVERSITY

15 resignations were received from members and 30 were deleted for unpaid subscriptions, leaving a Current Membership Total of 467.

TRAVEL AWARD APPLICANTS RECEIVE \$12000 FROM JANUARY 2009 FUNDING ROUND_____

The NZSAP Management Committee and the AgResearch Genomics Award Selection Panel met in February 2009 to consider applications for the NZSAP Animal Science Awards and the AgResearch Animal Genomics International Travel Award respectively.

We are pleased to announce that the following applicants have received funding.

NZSAP ANIMAL SCIENCE AWARD

Jenny Jago (Senior Scientist, DairyNZ, Hamilton)

To attend the Joint International Agricultural Conference (JIAC), being held at Wageningen University and Research Centre, The Netherlands, 6-8th July 2009. JIAC2009 is a combination of the European Conference on Precision Agriculture (ECPA), the European Conference on Precision Livestock Farming and the European Federation for Information Technology in Agriculture, Food and the Environment. Jenny will be presenting 2 papers. The purpose of attending the conference is to present the findings of DairyNZ research on new technologies for pastoral dairy production systems, specifically pastoral automatic milking. Jenny sees the benefits as including raising the profile of New Zealand Research, developing new and extending existing relationships with key researchers in the field and gaining access to the latest knowledge in dairy science.

Duncan Smeaton (Scientist, AgResearch, Hamilton)

To travel to the USDA Cattle Research Centre at Clay Centre, Nebraska for a 2-week period in late-March 2009. The Mid North Island Beef Producers Group (MNIBPG) are the primary funders of the study tour and want Duncan to observe the USDA's genetically selected twinning cattle and other interesting features of their beef research. They particularly want Duncan to be present in late March to see how the USDA team manage calving in twin pregnant cattle. Duncan will also visit at least two farmers who are currently running twinning cattle herds.

Emma Bermingham (Scientist, AgResearch, Grasslands)

To attend the International Symposium on Ruminant Physiology being held in Clermont-Ferrand, France (Sept 6-9, 2009) and the NuGO Conference in Montecatini, Italy (Aug 31st- Sept 1st, 2009). Emma will also visit the Lipid and Energy metabolism Team at INRA in Clermont-Ferrand to discuss future collaborations between AgResearch and INRA. Additionally, Emma will visit the International Agency for Research in Cancer in Lyon, France and present her work to facilitate discussions around future collaborations between their groups.

AGRESEARCH ANIMAL GENOMICS INTERNATIONAL TRAVEL FUND

Matt Bixley (Research Associate, AgResearch, Invermay)

To attend the 30th Association for the Advancement of Animal Breeding and Genetics (AAABG) Conference in the Barossa Valley, South Australia, 27th Sept-1st Oct 2009. Matt will present a paper on the development of a Deer SNP chip. Conference attendance will allow the opportunity to discuss applications of and analysis methods for the data that they generate. Matt is currently retraining in the area of statistics and believes the AAABG conference is an ideal forum to present his results as it focuses on applied genetics which will help combine both his molecular and statistical capabilities. Matt also plans on meeting up with other researchers in the area whom he is collaborating with.

Natalie Weston (Research Associate, AgResearch, Invermay)

To attend the 30th Association for the Advancement of Animal Breeding and Genetics (AAABG) Conference in the Barossa Valley, South Australia, 27th Sept-1st Oct 2009. This would be Natalie's first international conference and will be valuable as it covers topics that directly relate to her current

work which involves developing genome wide selection and single marker tests for disease traits (parasites, dags and flystrike) and a test for the polled locus in sheep. Natalie will be presenting her work on mapping the polled locus in sheep.

Applications for the next round of travel awards closes on **31 July 2009**.

Details on the NZSAP website and application forms from the Executive Secretary.

McMEEKAN AND SIR ARTHUR WARD AWARDS AND LIFE MEMBERSHIP

The **McMeekan Memorial Award** recognises an outstanding individual contribution made to New Zealand animal production and/or the Society, during the previous five years. Nominations must be signed by two financial members of the Society and must contain documented evidence of the way or ways in which the nominee's efforts have made an outstanding contribution to New Zealand animal production and/or the Society during the five years before the nomination. A potential recipient need not be a current member of the Society. The Award is in honour of Dr C P McMeekan a foundation member, past president, life member and distinguished leader in animal production, research and administration in New Zealand and the world.

The **Sir Arthur Ward Award** recognises the successful application of scientific research or farmer experimentation through a series of trials or effective extension when applied to an aspect of animal production in New Zealand. The nominee may be an individual, a company or an organisation, and need not be a member of the Society. Nominations must be signed by two financial members of the Society and must contain documented evidence of how the nominee's efforts have made a substantial contribution towards the adoption of a practice(s) that has facilitated more efficient animal production in terms of output per animal, per labour unit or per farm. The phrase "adoption of a practice" is to be broadly interpreted and may relate to the development of a technique, a piece of equipment, or a husbandry practice; the effective encouragement of sound principles of animal production; or the development of a new aspect of animal production.

The Management Committee is also seeking recommendations for the conferment of **Honorary Life Membership**. The Committee shall consider recommendations from members and a formal nomination will be read at the 2009 Annual General Meeting. **Honorary Life Members** shall be persons who have rendered significant service to the cause of animal production. Last year Life Membership was been conferred on John Smith and Jock Macmillan.

Nominations for these awards should be sent to the Executive Secretary by **March 31st**

AGRESEARCH ANIMAL GENOMICS AWARD REPORT – LEE DEIGHTON

I attended three weeks of laboratory training at the Alimentary Pharmabiotic Centre (APC), University College Cork, Ireland. The APC is a world-class research centre examining the contribution of the gut flora to health and disease; consisting of 50 clinicians and scientists specialising in gastroenterology, microbiology, immunology, bioinformatics, molecular biology, and food science. Specifically, funding was used for training in the ability to monitor *in vivo* gene expression using Bioluminescent imaging (Xenogen IVIS® Imaging System) and to visit a germ-free mouse facility with the aim of gathering information to set-up a similar rodent germ-free facility at AgResearch. Imaging technology allows the monitoring and recording of cellular and genetic activity within living organisms, and together with the use of germ-free mice can more accurately define host-microbe interactions.

The IVIS Imaging System is an advanced single-view 3D optical imaging system designed to improve quantitative outcomes of *in vivo* imaging. It uses optical imaging technology to facilitate non-invasive longitudinal monitoring of disease progression, cell trafficking and gene expression patterns in living animals. A single-view 3D imaging system designed for high throughput, the instrumentation and software allow researchers to better account for the effects of photon absorption and scattering in tissue, making bioluminescent source measurements more quantitative.

The germ-free mouse facility at the APC Teagasc site was unfortunately going through preliminary testing, so access was restricted and extreme biosecurity measures in place. I was however, able to meet with the Facility Manager, Linda Drummond, and discuss the details of creating and installing a germ-free rodent facility, and was given a tour of their standard trial systems.

On my way home, I also attended the Jackson laboratory workshop on surgical techniques in the mouse which was held in Bar Harbor, Maine. This workshop ran for five days covering a variety of surgical procedures in the laboratory mouse.

I thoroughly enjoyed my time spent at the APC. This training gave me grounding in genomic techniques that have grown not only my own capabilities, but also that of the Food and Gut health research programmes within the Food Nutritional Genomics team at AgResearch Grasslands. My visit also reaffirmed the growing relationship between the APC and AgResearch, in which science collaboration will greatly benefit both teams. I would like to extend my thanks the NZSAP for the funding provided for this training.

Lee Deighton
Senior Research Associate
Food, Metabolism & Microbiology
AgResearch Limited
Grasslands Research Centre

NZSAP ANIMAL SCIENCE AWARD REPORT – ANNETTE LITHERLAND

Annette used a \$3000 Animal Science Award to attend the 13th Congress of the Asian Australasian Animal Production and later to travel around rural Vietnam. The theme of the 13th Animal Science Congress of AAAP was "Animal Agriculture and the role of small holder farmers in a global economy". The aims of this congress were to support small holder farmers facing the global market system.

Asia accounts for an estimated 87% of all small farms, mainly mixed, below two hectares of land with almost half being less than 1 ha. Farming methods on these small farms are largely based on traditional farming methods. Indeed with the increase in fuel costs there is a big swing back to cultivation using buffalo or cattle. These small farms, many of which exist solely to produce food for the family, are highly diversified. Recently Vietnam became an exporter of a number of crops. For example, it is the second biggest exporter of rice in the world.

Most farms involve a mix of crops (predominantly rice), non-ruminants (chickens, ducks and pigs) and ruminants (buffaloes, cattle and sometimes goats and sheep) and some also include fish farming. In Vietnam, I judged that the output per ha (rice, meat, eggs etc) was much largely than an average NZ farm. Cropping in particular is very productive. Surprisingly the meat returns per kg for Vietnamese farmers is very similar to that received by NZ farmers. While the performance of some of their animals is low by our standards, it is largely the scale of Vietnamese farming that places around a third of farmers on the poverty line. It is unlikely, that in the immediate future, that Asia will follow the Western example of improving farm returns by aggregating and mechanising farms, to get economies of scale, as this is likely to lead to widespread poverty of the disenfranchised farming population. The rural population remains a very high proportion of total population

In ruminants in Vietnam there are opportunities to improve the utilization of pastures and rice straw. Many development projects aim to grow forages for conservation or trees for high quality forage. However, there is limited uptake of this technology because of the conflict with the production crops for human consumption. Rice straw is an under utilized resource. It is only the owners of ruminants that expend the labour needed to mound rice straw in hay stacks. The absence of rice straw harvesting infrastructure and commodity markets result in much of the rice straw being burnt in the paddock. Rice straw treated with nitrogen (and molasses) can support moderate LWG in ruminants. LWG akin to that of our summer pastures in the North Island.

There are lessons to be learnt from Vietnamese agriculture in the integration of farming enterprises and maximizing use of waste streams for their nutrients and biofuel potentials. The integration of fish farming systems with agriculture was also fascinating. The growing of crops on steep hill-sides is also inspiring.

AgRESEARCH ANIMAL GENOMICS AWARD REPORT – MARY WHEELER

Between the 24th and 27th of June 2008 I attended the combined conference of the NZ Society of Animal Production and the Australian Society of Animal Production. It was held at the St Lucia campus of the University of Queensland, Brisbane.

This was a great opportunity, and I returned to New Zealand with a greater appreciation of the differences between Australian and New Zealand agriculture, and a lot more knowledge about research going on in both countries.

The conference was very informative and enjoyable. For me, the highlight was being able to meet with researchers in areas similar to my own, to discuss the direction of their research and how it compared to the work we are doing here. It was interesting to talk to Lewis Kahn from the University of New England about his research regarding host resistance to internal sheep parasites.

In one of the poster sessions, I presented results from a long-term sheep selection experiment. Lines have been selected for resistance to parasite infection, resilience to parasite challenge, and an index combining both traits. The results were summarised for these as well as a Control line. This gave me the valuable opportunity to speak with a number of other researchers who had an interest in the field of parasite resistance and resilience. Chris Oldham, from Perth, was particularly interested in our work in combining the traits of Resistance and Resilience.

The field trip took us to the Gatton Campus of the University of Queensland. This is about one hour's drive west of Brisbane. We were shown around the newly built Centre for Advanced Animal Science, a \$33m facility for research focussing on animal production, health and welfare. It consists of a "Contained Area" with areas of varying biological security, for projects centred on disease control and development of vaccines, and an "Uncontained Area", for Nutrition and Behavioural research. Later, we visited the Mutdapilly Research Station and a commercial Dairy farm, which gave us an insight into the issues facing dairying in a subtropical environment.

Many thanks to the AgResearch Animal Genomics Fund Award for making it possible for me to attend this conference.

AWARDS APPLICATIONS

- 31st July – Animal Science Award Applications to Executive Secretary
- 31st July - AgResearch Animal Genomics Award applications to Executive Secretary

The Animal Science Award is to promote and advance Animal Science and Production. Specifically it encourages early career development and supports contact with AAAP activities. Applicants must normally have been a member of NZSAP for at least one year prior to application and be a current financial member. Applications are to be sent to the Executive Secretary by 31st July for consideration by the management committee in August/September.

The objectives of the **AgResearch Animal Genomics Award** are to facilitate research in the wider field of animal genomics including gene discovery, gene function (physiology) and gene inheritance (animal breeding) studies. In particular, the Award is intended to support conference travel and/or the acquisition of new technical skills by technicians and research associates.

Application forms are available from the Executive Secretary, or on the website <http://nzsap.org.nz>

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An electronic version of this newsletter and other information on the Society is available at: <http://nzsap.org.nz>
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