



By way of introduction for those of you who do not know me I am a senior lecturer in animal science at Massey University. I have a diverse range of research interests primarily focused on improving the productivity of sheep. These interests include ewe and lamb nutrition, the impacts of behaviour on lamb survival, ewe lamb breeding and the impact of sheep on waterways.

The annual NZSAP conference was held at Massey University in early July and was a great success. The team, ably lead by Massey University's Lydia Cranston, put together a diverse program that included a day focused on presenting science to a farmer audience. A great initiative that the society has been working towards for a number of years. Whilst the farmer numbers were not as great as we might have been hoped it is a worthy ambition for the society to work towards. The organizing committee for the 2020 conference are hoping to attract an even greater farmer audience in July.

The conference invited speaker, Alec Mackay, gave a timely talk on the progress of eco-efficiency in livestock systems. Alec and his co-authors reported that there have been significant productivity gains for extensive sheep and beef farms but modest gains in intensive systems between 1990 and 2012. Similarly North Island dairy farms have also increased production of milk solids kg/ha. They concluded that all NZ farm systems delivered more product in proportion to the greenhouse gas and nitrogen produced per hectare per year in 2012 compared with 1990. In Hard Hill country there is potential to offset more than 20% of livestock greenhouse gas emissions in addressing outstanding sustainable land management practices such as riparian plantings and spaced trees to prevent soil erosion.

The current fashion appears to be in pointing the finger at farmers as the source of greenhouse-gas emissions and water pollution. Agriculture, however, is not alone in production of greenhouse gases with the energy sector producing 41% of New Zealand's greenhouse gas emissions. The story receiving much less attention is that New Zealand is one of the most sustainable food producers in the world. NZ agricultural systems are more energy and CO₂ efficient than intensive systems typical in Europe and the USA. For example lamb production in New Zealand has been estimated to be four times more CO₂ efficient than British lamb¹. There is concern that any losses in market share for New Zealand lamb and beef will be taken up by foreign producers who farm less sustainably.

Understandably farmers are feeling under siege with Rabobank's rural confidence survey reporting a 33% decline in rural economy confidence. Reasons cited for pessimism were concerns over government policy, falling commodity prices, overseas markets/ economies and rising input costs. This has not been helped by the Government's recent release of the "Action

for healthy waterways” discussion document that has likely added more concern to farmers. It should not be forgotten that there has been considerable voluntary investment by New Zealand farmers in fencing off their natural waterways.

As a society we can support our animal production industries through the dissemination of our, and others, research. We need to be proactive about publicising our world leading work on improving livestock productivity and efficiency and reducing environmental impacts of our farming systems. To this end we have begun joint discussions with the NZ Grassland Association and the NZ Plant protection, NZ Agronomy and NZ Soil Science Societies about how we can engage more effectively with our various stakeholders.

Rene Corner-Thomas

NZSAP President

HIGHLIGHTS FROM THE NZSAP 2019 CONFERENCE

The 2019 NZSAP Conference was held in Palmerston North, Manawatu (2 to 4th July). Attendees enjoyed a range of presentations, including the Living Legend Address by Professor Stephen Morris, and the Keynote speech by Dr Jaqueline Rowarth. Attendees were given the opportunity to visit various research sites around Palmerston North including AgResearch greenhouse gas facilities, Fonterra Pilot Plant, Poultry research facilities and feed mill at Massey University, and Massey sheep research nutrient leaching site. The conference had a "Farmer Day" for the first time, with both Sheep & Beef, and Dairy streams.

The winners of the awards were:

Sir Arthur Ward Award -- **Tom Fraser**
McMeekan Memorial Award -- **Harry Clark**
Living Legend -- **Steve Morris**
Jubilee Award (Massey) -- **Lucy Vanwaayen**
Jubilee Award (Lincoln) -- **Paige Harris**
Young Members -- **Michaela Gibson**
Life Member -- **Tom Barry**

REMINDERS

VERY IMPORTANT NOTICE
CALL FOR ABSTRACTS FOR THE 2020 NZSAP CONFERENCE
DUE: 3 PM 7TH DECEMBER 2019
SUBMIT ONLINE AT: <http://www.nzsap.org/content/conference>

NOMINATIONS FOR NZSAP AWARDS
DUE: 31ST JANUARY 2020
--- McMeekan Memorial Award --- Sir Arthur Ward Award ---
75th Jubilee Technician Award -- Honorary Life Membership

APPLICATIONS FOR NZSAP ANIMAL SCIENCE TRAVEL AWARDS
DUE: 31ST JANUARY 2020
Application details can be found here:
<http://www.nzsap.org/nzsap-animal-science-award>

2020 MEMBERSHIP SUBSCRIPTION \$95
PLEASE HAVE THIS PAID BY: **31ST MARCH 2020**
Keep an eye out in December 2019 for an email notification that subscriptions are due for payment. Prompt payment is appreciated.

NZSAP CONFERENCE 2020



This could be you!

Yes everybody, book it in you calendars now and get your papers drafted!

The 80th NZSAP Conference will be held in Queenstown from **30 June – 2 July 2020** (Tuesday – Thursday).

The conference theme will be “Animal Production in Future Farm Systems” and there will be Contract Sessions and a field day on the Wednesday with visits to local farms which reflect the contract themes.

The conference and especially contract sessions aim to encompass the current topical influences on livestock production including landscape use, water quality, emissions, social license, alternative proteins, new farm system paradigms etc. Our goal is to have Contract Sessions that are lay-person focused to attract farmers, agents, field reps, regional council and government agency staff, based around the conference theme, if any members would like to suggest or lead a contract session please contact me (jamie.ward@agresearch.co.nz or 03 4899186) to discuss further. At present we are planning one session around the intersection between farming and tourism, given that we are a New Zealand tourism hotspot surrounded by iconic landscapes and farming.

We would like the conference to widely embrace animal production and will be contacting various non-traditional NZSAP conference attendees to try and showcase all New Zealand animal production and provide a touch point to inspire thinking around new opportunities for animal production into the future. To help us with this if you have any contacts in pork, poultry, aquaculture, apiculture please encourage them to attend and get in early and encourage them to submit an abstract.

Please publicise the conference across your wider networks and let’s see if we can attract a new group of people to NZSAP.

We have the dates and venue confirmed and will have a conference website available soon.

Our conference organizer this year is Pat Johnson from DCMS who has organized many previous NZSAP conferences. <http://www.dcms.co.nz/>



Your field trips could look something like this....

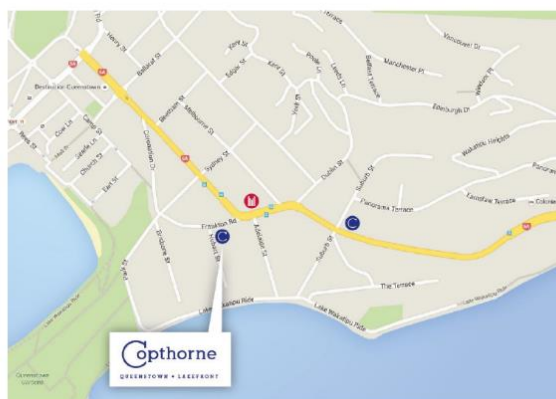
The venue is right in Queenstown a quick walk to the lake or centre of the town.

<https://www.millenniumhotels.com/en/queenstown/cophorne-hotel-and-resort-lakefront-queenstown/>



LOCATION

The Cophorne Hotel & Resort Lakefront is located a short 3 minute walk from the heart of Queenstown, with world-class restaurants and cosmopolitan shopping.



Thank you from, Jamie Ward Conference Convener 2020, on behalf of your conference organizing committee: Tricia Johnston, Wendy Bain, Sheryl-Anne Newman, Franziska Weik, Cecile DeKlein, Megan McCall, and Annie O'Connell

ABSTRACT FORMS NOW OPEN FOR 2020 NZSAP CONFERENCE

Abstracts for the 2020 conference will take two forms:

- 1) **Traditional scientific papers** to be published in the peer-reviewed New Zealand Journal of Animal Science and Production, or,
- 2) **Contract presentations** which may consist of a presentation supported by a presentation summary published in the supplementary material.

Please indicate on the abstract submission form, whether your submission is intended for the farmer day, and if so, whether you would prefer to produce a full paper for peer review, or a non-peer-reviewed presentation summary.

To submit a paper to the NZSAP proceedings an abstract must first be submitted no later than **3 PM Friday 7th December 2020**. Further information on key dates and abstract submission are available via the NZSAP website: <http://www.nzsap.org/content/conference>

NZSAP PROCEEDINGS - FREE ONLINE

The proceedings of the NZSAP is now open access and can be accessed using the following link: www.nzsap.org/proceedings

NOMINATIONS FOR AWARDS 2020

The Management Committee is seeking recommendations for the **McMeekan Memorial Award**, the **Sir Arthur Ward Award**, the **75th Jubilee Technician Award**, as well as conferment of **Honorary Life Membership**. The Committee shall consider recommendations from members and formal nominations will be read at the 2020 Annual General Meeting. **Honorary Life Members** shall be persons who have rendered significant service to the cause of animal production.

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 **75th Jubilee Technician Award** recognises outstanding contribution by an individual technician to the facilitation of quality research in New Zealand animal production and/or the

Society. To be eligible for consideration the position description or job title of the nominee must reflect a technical position. Nominations must be signed by two current financial members of the Society and must contain documented evidence of the way in which the nominee has fulfilled the objectives of the Award and made an outstanding contribution to New Zealand animal production and/or the Society. A potential recipient need not be a current member of the Society. The Award is in recognition of the 75th Anniversary of NZSAP.

To nominate somebody for an award, please send the following to the Executive Secretary:

NZSAP, C/- SAE – Massey University, Private Bag 11 222, Palmerston North 4442

Email: nzsap.inc@gmail.com

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

THE MCMEEKAN MEMORIAL AWARD 1984 WINNER PASSED AWAY _____

Retired dairy scientist and previous MCMEEKAN MEMORIAL AWARD winner, Dr Arnold Bryant, passed away peacefully on Wednesday 2nd October 2019, aged 82 years.

Arnold was a top scholar and was awarded 5 prizes and scholarships at Massey in the process of completing the B. Agr. Sci. degree in 1960 and the M. Agr. Sci. in 1961. After completing his MSc, he was employed at Ruakura in 1962, but was seconded back down to Palmerston North to do a PhD in veterinary physiology through Massey, which he was awarded in 1968.

A well-known and respected scientist, Bryant's work encompassed research and extension activity and helped ensure Ruakura Research Station maintained its national and international reputation in dairy science.

Dr Bryant's work has covered many fields and he was truly an example of the type of scientists interested in the utilisation of pasture by animal, whom Dr McMeekan once described as a hybrid, standing midway between the keepers of the greensward and the keepers of animal. He was a member in NZSAP for several years, and was its president in 1977-78. The McMeekan Award was given to him in 1984 in recognition of service to animal production. Death has ended Dr Bryant's life, but the contributions he had toward animal science will keep him alive within the society.

TRAVEL AWARD REPORTS _____

Travel Reports for Animal Science Award

Anita Fleming, Ph.D. candidate studying ruminant nutrition at Lincoln University

I was very lucky to receive the NZSAP animal science award to attend and present at the 70th annual meeting of the European Federation of Animal Science (EAAP 2019), held in Ghent this year. The theme of this year's meeting was 'Animal farming for a healthy world' which was examined across 73 different sessions covering all conceivable aspects of livestock production

and aquaculture, including a session on the environmental impact of camelids. My presentation; Sugar for dairy cows? Simulating fodder beet supplementation to reduce environmental pollution; summarised results of mechanistic, dynamic and deterministic modelling of pasture and fodder beet feeding strategies to improve milk production, rumen function and pollution of early lactation dairy cows. Although, Fodder beet has been fed to livestock for a very long time in Europe, management of FB in NZ is somewhat unique and I was pleasantly surprised by the discussion that was generated.

Not only was I fortunate enough to spend a week in the beautiful medieval city of Ghent, but EAAP 2019 provided a great opportunity to improve presentation and networking skills, and receive constructive feedback on a section of my thesis prior to its' submission. Previously, my thesis has focused on the nutritional and economic effects to feeding dairy cows fodder beet during lactation and considering the environmental impacts (nitrogen leaching and greenhouse gas emissions) has provided a deeper understanding, which I hope will help develop my career. I was also able to attend a scientific writing and presenting workshop as part of the EAAP which I have found very useful. The wide variety of sessions and research presented was not only a great introduction to novel concepts, but also enabled more establishment for ideas to be challenged. For example, the plenary session was dominated by a heated discussion on animals rights and the merits of veganism for environmental and animal welfare protection, which was provocative, but insightful. I am very grateful to NZSAP for the opportunity to attend my first international conference and will definitely encourage other young members to do the same!

Megan Scholtens, PhD student at Massey University

The purpose of the grant was for me to attend and present my research at the 70th Annual Meeting of the European Federation of Animal Science, which took place in Ghent, Belgium on 26th-30th August 2019. I presented my paper entitled "Persistency of lactation yields of milk, fat and protein in New Zealand dairy goats". Attending the conference provided a platform for me to present and promote part of NZ research in the agricultural sector, to experienced researchers from around the world. I was also able to meet and learn from other scientists and industry experts about new research and methodologies from many areas of animal science.

The theme of this year's meeting was 'Animal farming for a healthy world' which covered topics such as animal welfare, diversification, climate change, product quality, and agro-ecology. One of the highlights of the conference was the plenary meeting, in which invited speakers presented very thought-provoking topics. One speaker talked about the principles of human-animal relationships, and another presented on the philosophy of animal rights and the concept of equal consideration, stating that animals have the right not to be property! Another conference highlight was the visit to the dairy goat farm in Gits, Belgium, which gave a great opportunity to learn about dairy goats farming in Belgium and compare it to the NZ system. After the conference finished, I managed to visit Walloon Agricultural Research Centre CRA-W in Gembloux (south of Brussels), where I spent one day learning about the method of fourier transform infrared spectroscopy (FTIR) to predict milk composition.

I would like to thank NZSAP for the financial assistance to attend this conference, not only was it a great opportunity to present some of my research but also to learn about many areas of

animal science. This was such an amazing experience and I am incredibly grateful to NZSAP for the opportunity to attend such a spectacular meeting.

NEW MEMBERS

The NZSAP would like to welcome our new members:

Lindsay Lawrence	Russell Hurst	Sasgara Kumara
Sarmini Maheswaran	Anthony Cyrille	Sujan Sapkota
Jimmy Semakula	Dave Robertson	Seer Ikurior
Rebecca Drake	Gayani Herath	Muhammad Wasim Iqbal
Beverley Thomson	Hassan Khanaki	Md Safiqur Rahaman Shishir
Addisu Hailu	Pavithra Ariyaratne	Franziska Weik
Emmanuelle Haslin	Samuel Pike	Fernando Henrique Albuquerque
Michaela Gibson		

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Any contributions to the Newsletter should be forwarded to: **Omar Al-Marashdeh**, *NRE building, Faculty of Agriculture and Life Sciences, Lincoln University, Lincoln 7647* Email: Omar.Al-Marashdeh@lincoln.ac.nz

ⁱ Goldberg A. 2008. The Carbon Footprints of Beef and Lamb: A Lifecycle Approach to Measuring the Sustainability of New Zealand's Primary Produce. MEnvStud Thesis.