

New Zealand Society of Animal Production online archive

This paper is from the New Zealand Society for Animal Production online archive. NZSAP holds a regular annual conference in June or July each year for the presentation of technical and applied topics in animal production. NZSAP plays an important role as a forum fostering research in all areas of animal production including production systems, nutrition, meat science, animal welfare, wool science, animal breeding and genetics.

An invitation is extended to all those involved in the field of animal production to apply for membership of the New Zealand Society of Animal Production at our website www.nzsap.org.nz

[View All Proceedings](#)

[Next Conference](#)

[Join NZSAP](#)

The New Zealand Society of Animal Production in publishing the conference proceedings is engaged in disseminating information, not rendering professional advice or services. The views expressed herein do not necessarily represent the views of the New Zealand Society of Animal Production and the New Zealand Society of Animal Production expressly disclaims any form of liability with respect to anything done or omitted to be done in reliance upon the contents of these proceedings.

This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](https://creativecommons.org/licenses/by-nc-nd/4.0/).



You are free to:

Share— copy and redistribute the material in any medium or format

Under the following terms:

Attribution — You must give [appropriate credit](#), provide a link to the license, and [indicate if changes were made](#). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NonCommercial — You may not use the material for [commercial purposes](#).

NoDerivatives — If you [remix, transform, or build upon](#) the material, you may not distribute the modified material.

<http://creativecommons.org.nz/licences/licences-explained/>

Presidential Address 2011

The changing face of agriculture

AW Greer

Faculty of Agriculture and Life Sciences, PO Box 84, Lincoln University 7647, New Zealand

Agriculture is continually changing. For a large part change is essential, from the seasonal changes in animals and plants through to the inevitable changes in land use and labour requirements as technological improvements and market forces take effect. Indeed, things have changed somewhat since I was a young boy growing up on a farm in rural Southland. In my youth I would have had to travel for nearly an hour to the nearest dairy farm. But by the time I was at university, about ten years ago, the district had started to change, there was slowly but surely getting fewer and fewer sheep farmers and these were being replaced by dairy farmers chasing the white gold. Even at this point sheep farms still dominated the landscape.

In the past decade things have continued to change. Ten years ago Southland was 'home' to about 4% of the national dairy herd, with this figure increasing to 10% in the present day. While you will still see plenty of sheep as you drive around, the change in terms of land use is clearly evident. Given that economics are usually the primary driver for such changes it is worth mentioning here that Southland is not on its own in this respect, the dairy boom in the South Island has seen the numbers of cows throughout increase significantly. Canterbury now contains 14% of the national herd as opposed to 4% ten years ago. Further, and perhaps more importantly, the impact on the local economy has been unquestionably beneficial with a number of small towns now bustling with activity. It is frightening to consider what state these towns would be in if the district had been reliant on the cash flow from sheep and beef during the past decade.

Although the financial benefits are evident, this change in land use has bought with it some significant issues. As with any increase in intensity of production systems similar to the Southland experience of the past ten years, there is always a greater pressure put on natural resources. This is an issue which has not always delighted the general public. As a result, there has been a gradual but clear change in the public perception of farmers, and even agriculture in general. Once viewed with compassion and even possibly appreciation, farmers are now viewed by some as an adversary and an example of what is wrong in today's money-centric society where what they perceive as their natural resources, are either being exploited, squandered or simply made inaccessible.



Regardless of the cause, this change in the way we as a society as a whole view our natural resources, has been a very important one. It has undoubtedly changed, and will continue to change, the form that agriculture and more specifically animal production, will be forced to adopt in the years to come. Whether the change has been market driven, in terms of consumer acceptance of our products, or whether it is a consequence of political pressure reacting to a groundswell of local

voices, this change in the way we view and utilise our natural resources has arguably been one of the most significant shifts in agriculture in the past few decades.

While there are many regulatory requirements adopted by regional councils throughout the country on nutrient use, nutrient budgets, effluent disposal and whole farm plans, just to name a few, not all of the change is coming from the 'top down'. There are a number of projects that have been either farmer or community led that have resulted in a change in the way our resources are viewed and managed. A good example is the Awarua Wetlands. Here a farmer action group has led the way in riparian fencing and planting, and changing farm management practices along the catchment to reduce nutrient runoff into the Waituna Lagoon. This is just one of many examples of similar situations throughout the country and helps signify how important guardianship of the land is to most of those involved in the agricultural sector.

This change in perception of our resources and the desire to protect them, has also had a profound effect on our industry organisations and agricultural science in general. For example, of the 27 strategic objectives that DairyNZ currently have, just over one-quarter, or seven, of these directly relate to the environment with a further one solely on improving public perception. To put this in perspective, there are just eight which directly involve profitability and production, and a further seven that relate to animal health and welfare. This gives some indication as to the importance that industry organisations such as DairyNZ are placing on issues of the environment and resource use. Further, there are now specific funds allocated for scientific research to study the impacts of agriculture on the environment and sustainable land practices with whole sections of research providers dedicated to the cause and research consortia that are spread across all of the major pastoral industries.

As you can imagine, our New Zealand Society of Animal Production is not immune. Consequently, this change in the focus of science has flowed through to our Proceedings. To help me with this I will use some of the data compiled by Catherine Morrow in her President's report some ten years ago. As part of her report Catherine compiled a list of the number of papers published in our Proceedings classified by the paper's predominant discipline. In the ten years prior to 2002, there was no mention of the environment as a discipline. A quick scan of the titles through this decade suggests there were three papers that were directly related to the environment or sustainability. In contrast, grouping the papers presented in the past ten years in a similar manner paints a very different picture with at least 47 papers relating to environmental issues prior to this year's Proceedings, including three contract sessions and the 2011 Landcorp Lecture.

So what does this change tell us? Arguably, it reflects the maturation of agriculture as an industry. It is no longer like a young care-free teenager careering about with reckless abandon with little regard for tomorrow. Instead, it is of a more mature age and is aware that actions carry with them consequences and that resources, like life, are finite and do have a breaking point. Most of all, we need to live within our means.

Sustainability is now probably one of the most overused 'buzzwords'. Nevertheless, there is no doubt that the sustainability of agricultural systems will continue to be intimately linked with the future focus of farm management, industry policy and research objectives for some time to come. While this clearly will, and already has, changed the emphasis of research directives, this should not deter us from the enthusiasm by which we attack a particular issue. We as a society must embrace the need to use our nation's valuable natural resources responsibly. In so doing we must also not lose sight of the fact that we are an Animal Production Society. As such, we must continue to strive for improvements in the production of milk, meat and fibre, in keeping with the primary objectives of this Society. We just have to continue to find sustainable methods of doing this so as to ensure the longevity of such improvements.

Sustainability can come in many shapes and forms. One may be ensuring we have the personnel to continue with research and teaching in animal production science. Comments are frequently made regarding the disproportionate number of members at our Annual Conference with grey hair! Further, there appear to be a large number of people who either have recently retired, or may be retiring, from animal science within the next five years, who have been extremely influential in shaping animal production in New Zealand. After many discussions with people from different institutions on this issue over the past few years, it has commonly been agreed that this

poses a major issue, at least in the short term as the accumulated knowledge held by these individuals slowly becomes unavailable. However, after enlisting the assistance of the human resources personnel at the respective institutions to provide a breakdown of the age profile of academic staff or scientists, it appears that things are not as bad as first thought. The number of people who are over the age of 60 in either AgResearch or in the Institute of Veterinary, Animal and Biomedical Sciences at Massey University are in proportion with just under 10% each in each institution. However, the same cannot be said for Lincoln University. Here, over a quarter (28%) of academic staff in the Faculty of Agriculture and Life Sciences are over the age of 60. Nevertheless, the current efflux of personnel from our Society, through retirement, who have provided a major contribution to animal production science in New Zealand, is still a major concern. The knowledge and expertise from these persons will be sorely missed, not only in their contributions to our Proceedings, but also in discussions at the Conference itself.

There is an upside to the exodus of experienced researchers. On the assumption they are replaced, this creates the opportunity for some fresh blood, fresh ideas and youthful enthusiasm. However, in doing so we must also ensure that sufficient guidance is maintained. One could argue that one of the most important roles of our experienced campaigners is the mentoring capacity they provide. This is particularly important as science becomes more specialized and, as a consequence, more difficult to link results at the molecular end to 'whole animal' or even 'whole farm' systems. Such mentoring is ideally suited to persons with a wealth of experience in animal science. Dilution of this ability through a lack of planning in terms of the sustainability of intellectual capacity, will undoubtedly impact on our advances in agriculture. Loss of the institutional memory that is afforded by some of the more experienced members of this Society will also be felt.

It is largely with these sentiments in mind that we have a new feature in this year's Conference, known as the 'Living Legend Address'. The objective of this address is to help retain some of the knowledge of the 'what, why and how' of some of the research careers that have helped shape New Zealand animal production, rather than just letting that knowledge slip out the back door. It is not intended as an opportunity to grandstand but rather an opportunity for less experienced members of the Society to gain an insight into the rationale and approach that was adopted during programs that have led to a significant improvement in our production systems. As the historian Irene Odotei once said "Without knowing where we have been we cannot understand why we are where we are; and without understanding why we are where we are, we cannot properly determine where we ought to go."