



AUSTRALIA TO HOST INTERNATIONAL CONFERENCE

Australia will host the 2008 International Contemporary Scholars Conference – the key event on the global Nuffield tour calendar. Farmers from around the world will descend on Melbourne for the week-long conference, which will expose new Scholars to Australian agriculture and culture, while providing a unique opportunity to network and visit local attractions. It was announced at the recent second conference of current-year Scholars in Calgary, hosted by the Canadian Nuffield Scholars, which was attended by Nuffield Australia Chairman Peter Nixon and CEO Jim Geltch.

During the convention, Chairmen representing participating countries reviewed the success of the annual event, introduced in 2005, and unanimously agreed it was an important development for the international Nuffield program.

Planning for the Melbourne Conference is underway, with a proposal to coincide the last two days with the beginning of the Nuffield Australia Autumn Tour. The 2008 Tour will be held in Northern Victoria.

AUTUMN TOUR SUCCESS CONTINUES – CHAIRMAN'S REPORT

The 2007 Autumn Tour of Port Lincoln and the Eyre Peninsula, South Australia, attracted one of the highest attendance levels in the event's history.

It was pleasing to see a good mix of young and old Scholars present, with all but two of the 2005 Scholars in attendance. A number of our sponsors were also represented. The tour itinerary featured visits ranging from aquaculture to broadacre operations, with oyster and sushi tasting among the highlights. Six 2005 Scholars presented research findings on diverse study topics including biofuels, organic lamb and efficient water use in irrigation.

Congratulations to the Nuffield South Australia branch and the organising committee for a memorable tour and outstanding fellowship. We have now achieved a good format and cost structure for the Autumn Tours, and will endeavour to maintain this going forward.

The Board appreciates the expense associated with interstate travel and ensuring events remain cost effective is a priority.

I hope you are all able to enjoy a good season in 2007.
Peter Nixon.



Spring Tour/National Conference/AGM

The Nuffield Australia Board has been considering the optimum format for our 'National Conference' in recent years, and evaluating current arrangements to determine whether they meet our objectives. Such events can be expensive, they compete with a large number of other conferences, and attendance is often disappointing. We have therefore decided to streamline the current format, merging successful elements and rebranding the overall event the 'Spring Tour'. The presentation of research reports by returning Scholars will be branded 'Innovative Farming Australia' and will absorb one day within the Spring Tour program. The 2007 Spring Tour will be held in Fremantle, Western Australia, from October 4 to 7. Highlights will include a day at the Kulin bush races. The Awards Dinner will be addressed by Mr Michael Chaney AO, Chairman of the National Australia Bank. Please mark the dates in your diary.

Applications Open.

Applications are now open for 2007 Nuffield Scholarships. We urge you to encourage any young farmers with leadership potential to apply. Our research indicates that personal contact and encouragement is the best way to get applications in.

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NEW SOUTH WALES

Chairman: Jim Friend



NSW AGM & TOUR

The NSW branch had one of its best roll ups for an AGM in recent years, when it held its meeting in Lockhart on 28th March.

Office bearers elected were Chairman Jim Friend and Brent Alexander – Secretary/Treasurer.

In line with the other states, the NSW branch has had a name change and from now on will be known as Nuffield Australia – NSW Branch.

Jim Geltch gave a report on the national activities and the date and venue for the 2008 AGM was set for **19th March 2008**, centred on the Dubbo region.

In conjunction with the AGM, we also held a tour visiting Charles Sturt Uni, the Agricultural Research Institute in Wagga and the Yerong Creek district. The tour and dinner were sponsored by The Future Farmers and John Ryan of Ausplow – many thanks to both of those organisations for their great support.

Mark Conyers and Sergio Moroni gave us an outline of their involvement with the “Canola Yield Decline” project, which is a joint venture between the ARI, CSIRO, Farmlink and GRDC. The project, as the name suggests, is looking at the reasons why the yield of canola has been falling in southern NSW in

recent years. Various influences are being explored, including disease and subsoil constraints. Mark and Sergio are working on soil constraints and have set up trials across the region looking at the influence of sub soil sodicity, acidity and compaction.

We then toured the recently constructed vet labs at Charles Sturt Uni. This state-of-the-art facility has been aimed squarely at attracting vets into practicing in the country. All student entry into the course is subject to an interview process which has an emphasis on a country background and an involvement with the livestock industry.

We then progressed to Nuffield Scholar Tim Hutchings’ farm at Yerong Creek with a short stop at the Yerong Creek Winery for lunch.

Tim gave us an insight into his Centre Plus sheep operation, which is a performance-based merino flock relying heavily on measurement for selection. It was refreshing to see someone so excited about the merino industry and understandably so, with some huge reductions in micron and increased wool cut in recent years.

Tim also runs a consulting business and he showed us some sobering figures on the length of time needed for many primary producers to recover from the current drought.

By: Brent Alexander

NORTHERN TERRITORY

Chairman: Ashley Severin

Very little to report from the top end. All existing scholars have worked hard to secure sponsorship for this year and the NT Government has again agreed to sponsor the NT Scholarship this year. We are all on the look out for prospective scholars as well.

Jon Shaw, Bill Davey and Ashley Severin all attended the Autumn Tour. A well organised and well carried out tour, congratulations to all involved.



Most of the NT received some much needed rain during March, which has resulted in a green drought to go with the first Exceptional Circumstances area announced in the NT.

The severe dry has led to feral camels moving from Aboriginal-managed lands to pastoral lands in search of water. In the southern and western state boundary areas, along with areas around Alice Springs, many hundreds of thousands of dollars of damage has been done by these feral animals. Always something new and different to keep us farmers on our toes!



The property neighbouring Curtin Springs, NT.

QUEENSLAND

Chairman: Derek Schulz

*Sylvia & Charles Viertel
Charitable Foundation*

A big hello to all fellow scholars and their families.

In early February, Queensland Scholars were treated to a very successful tour of the Gympie and Bundaberg regions, catching up with our 2006 scholars:

Jack Milbank in Gympie, where we had a tour over his passionfruit and fruit orchard, ending with taste testing.



Following on to **Camilla Philips'** operation of large scale tomato packaging, being the major part of S.P. Export. Unfortunately, Camilla was already on her Nuffield tour, but with the help of her staff we were able to see her operation.

A very well organised tour of the Bundaberg surrounds was hosted by **Graham Ramsay** and his family, with Graham giving us a complete insight into the potato crisp industry. A true highlight was the helicopter rides around the area. Well done Graham.

The Queensland Branch held its AGM in Bundaberg. Warren Drynan stood down as Chairman with myself (Derek Schulz) taking over as chairman, Duncan

McMaster as secretary was replaced by Brendan Kersh and Treasurer Neville Skerman was replaced with Michael McKellar.

A special thank you to Neville Skerman for his outstanding commitment to Qld Nuffield as our treasurer for so long.

Taking on Chairman is a whole new role for me as it is another first, just like receiving my scholarship in 2000 and being asked to fly around the world. Until then I had never seen inside a plane, let alone fly in one. Nuffield gives you the opportunity to step out of your comfort zone. Over the next few months our Qld executives will be busy organising the Autumn Tour of North Qld for 2009 and also other activities within our own state.

Hope to see you all in sunny Queensland soon.



QLD Nuffield's at Bundaberg
(Provided by Philip Donges)

SOUTH AUSTRALIA

Chairman: Steven Jaeschke



SA Nuffield has had a busy time, with our four new scholars departing for their scholarships, the national Autumn Tour being conducted in South Australia and a season that has offered up mixed seasonal conclusions for the state. I would like to again thank Peter Treloar, Mark Modra and Tim Van Loon, and their families, for a wonderfully organised Autumn Tour on the Eyre Peninsula. It has been a wonderful opportunity to see the Eyre Peninsula, and their community approach to marketing the production in their region is to be commended.

During February, I had an opportunity to speak to the Agriventure group to promote Nuffield to some young farming people and the Autumn Tour identified some interested prospective participants.

We should all try to be seeking people who may be suitable participants, with new applications being accepted until the end of June.

We again are trying to combine a number of our official annual responsibilities together for a convenient and worthwhile meeting in July. The State Selection will be held on Friday 20th July. The AGM is planned for the evening of the 20th July, followed by a dinner, and the weekend of the 21st and 22nd, of July will be our winter tour of returned scholars' businesses. This year we will travel to the mid north and Yorke Peninsula. We hope many will be able to attend this weekend.

Good luck to those who are currently on their scholarships, and all the best for a more stable production season this year.

TASMANIA

Chairman: Robert Dent



A successful gathering of Tasmanian scholars was held in February at the home of Rob & Kathy Henry with a barbecue lunch followed by a meeting. Tony Barker gave a report on his recent scholarship and James Walker outlined what he is planning to look at on his upcoming scholarship.

Darryl Barker is currently organising our annual tour, this year to King Island in late May. Anyone interested in joining the tour please contact either Darryl or Robert Dent.



Tasmanian scholars relaxing at Rob and Kathy Henry's

VICTORIA

Chairman: Paul Bethune



The Victorian Nuff Nuffs met in early April at Horsham, where 10 Nuffield Scholars and partners had lunch and were addressed by the Economic Development Officer of the West Wimmera Shire. We were fortunate that Paul Baker, an English Nuffield Scholar, had decided to join us for the day.

We then travelled by bus to Kaniva to Steven Hobbs's family farm. Steven is just about to commence building a 2 million litre per year bio-diesel plant.

Among other things, Steven grows mustard crops on his farm and we had a captain cook at the processing plant which turns that mustard into oil ready for the bio-diesel plant. The resultant meal residue from the crushing operation at 19 per cent protein is then used to fatten lambs.

From Steven's we visited a value-adding almond farm near the South Australian border. From there we returned to Horsham and were treated to a gourmet barbeque at the home of Dean and Gabriella Johns.

By this stage the crew was starting to get a bit rowdy. In order to settle the team down a bit we held the AGM and Trevor Caithness is the new man in charge. Other positions remained the same with Paul Zuidema secretary and Graeme Box as our resident financial wiz.

It will be Victoria's turn to hold the Autumn Tour in 2008. The dates will be from 28th February to 2nd March in northern Victoria.

If you're happy and you know it dance a jig!



Photograph: Steven Hobbs. (Provided by Chris Hindhaugh)

WESTERN AUSTRALIA

Chairman: John Foss


Countryman *Farm WEEKLY*
INCORPORATING ELDERS WEEKLY
AUSPLOW

WA Nuffield has held no events over the summer and autumn this year as we are focusing our event calendar on hosting the Spring Tour which will include the Australian Innovating Farming Day and Awards Dinner. The Spring Tour will be held from the 4th till 7th of October in the port city of Fremantle, Australia's gateway to the booming Indian Ocean Rim markets of Asia, the subcontinent and the Middle East. The weekend tour will take us through the heart of the WA wheatbelt.



Fremantle, Western Australia

The program organisation is underway and we are looking forward to presenting an exciting, educational and very social program that will give participants a taste of what WA offers from both a business and recreational aspect.

Further details will be sent to you in the coming months but anticipated highlights of the program include high class presentations from the current scholars; an award presentation dinner with Michael Chaney, former CEO of Wesfarmers and current chairman of NAB, providing the keynote address; plus a wheatbelt tour on the weekend which takes in a day at the hugely popular Kulin Bush races and a visit to Hyden and Wave Rock; and presentations from some of the most progressive and motivated farmers in the country.

Wave Rock



Kulin Bush Races



Make sure you put the dates in your calendar as WA Nuffield looks forward to hosting you this spring.

South Australia Autumn Tour

Overview

Port Lincoln, Eyre Peninsula, SA
 15th – 18th March 2007

Edited by Mark Modra, written by Nicola Raymond
 (Welsh Nuffield Scholar)

(Full version available: www.nuffield.com.au)

The Nuffield Autumn Tour was held at Port Lincoln. There were more than 80 participants in the tour, made up of Nuffield Scholars and their partners, and sponsors' representatives (six from CSBP).

Port Lincoln is situated at the southern tip of the Eyre Peninsula, a triangular shaped area of South Australia which covers 55,000 sq km. Port Lincoln is a prosperous, bustling town with a population of approximately 14,000.

It is a major agricultural region with 1,350 farms and the agricultural industry comprises 85 per cent of the region's economic activity. Aquaculture is currently the fastest growing enterprise in this region. It is also a popular tourist destination, especially for whale watching and fishing.

This area also suffered one of the deadliest bushfires in 20 years in January 2005, claiming land, livestock, houses and even lives. One interesting statistic is that Port Lincoln has more millionaires per capita than any other area in Australia.

Thursday was our first official day and it was filled with an array of farm and agri-business visits. The first visit was to the farm of Nuffield Scholar Mark Modra (2004), who farms mainly arable crops just outside Port Lincoln. *Continued page 6.*

Peter Treloar – rallying the troops



Our second visit was to Dutton Bay Woolshed, established in 1875 by Mr Price Maurice and situated near the coastline. A jetty was built for a “land-sea” link and in its peak more than 20,000 sheep were shorn and up to 100,000 fleeces were baled and loaded for overseas markets. Since 1989, Craig Brown has slowly and passionately restored the woolshed, with a focus on tourism.



Our last visit of the morning was to Coffin Bay Oyster Farm, run by a businessman called Lester Marshall. Coffin Bay has always been renowned for high-quality oysters but Lester has capitalised on this and branded his product range and now supplies 3-4 tonnes of oysters to premium markets per week. We all got to try some oysters with lemon which were truly delicious – if a little inappropriate on an empty stomach!

After an enjoyable lunch at Coffin Bay Yacht Club we boarded the buses to Cummins Milling Company, one of very few original flourmills still operating in rural Australia. Established in 1930, flour has been produced for more than 75 years with wheat mainly sourced from throughout the Eyre Peninsula off local farms. The equipment is mostly “original” and there is a real historic feel about the place – plus very few belt guards or general evidence of health and safety precautions! They also built a stockfeed plant in the 1960s for the purpose of utilising the flour by-product and a range of feeds are produced for local farmers and fishermen.

Our final presentation of the day was “Grain and Graze”, a program which invests in research to improve the profitability of mixed farms. This was held at a local community hall in a hamlet called Edillilie.

Friday was the official presentation day with six Scholars doing their Nuffield presentations following their study tours. (The other six 2005 scholars presented last October). Our venue for this great occasion was the Boston Bay Winery, a setting with wonderful gardens and views overlooking the coast near Port Lincoln.

Dave Fulwood was first and his subject was “Value-Adding Commodity Grain Products” as he is an arable farmer from Western Australia. Second we had Caroline Brown who had focused on “Renewable Energy and Biodiesel”.

After a break we heard Anthony Brandsema, the largest tomato grower in Tasmania who had focused on “Controlled Environment Management of Tomatoes” followed by Andrew Watson, a cotton grower who had studied “Water use Efficiency in Irrigation”. Fifth was Leigh Vial, a rice and arable producer who had focused on “Aerobic Rice and whether it can work in Australia”. Finally, we had Garry Hannigan, our trusty outback Australian sheep producer who had been “Gaining an Understanding of the Global Market for Organic Lamb in Developed Countries”.

John Lawton, a SA 1962 Nuffield Scholar, was presented with a Nuffield Shield by Peter Treloar.



Saturday morning the group walked to the Marine Science Centre, a research education and industry development centre for the aquaculture industry. Ross Haldane and Tony Bolton did presentations which focused on seafood product quality, adding-value, ecosystem services and biosecurity. We also got to witness a 25kg tuna fish being boned and cut and we all sampled fantastic raw tuna which was delicious.

We then boarded a boat to Boston Island, a 1000 hectare island owned by the Port Lincoln Mayor Mr Peter Davis. Peter is a fascinating man farming 1500 sheep and encouraging tourism. After this visit, which involved sitting on flat trailers and being towed around the island, we took the boat to a tuna farm supplying fish to markets across Japan. The demand for tuna in Japan is at an all time high and prices that were once 60 cents per kg are now \$60 per kg! This explains why there are so many millionaires in Port Lincoln!

Sunday before departure saw a group of us visiting some spectacular rugged coastline south of Port Lincoln with commentary given on local whaling history.

A CD of photos taken at the SA Tour is available and also a great DVD record of the whole tour was recorded by Stan Schur. If you would like to buy a copy of either please contact the Nuffield Office. PS: last year’s NSW Tour is also available on DVD. \$9.90 for the DVDs and \$3.30 for the photo CD.

China 2006 - A Nuffield Global Focus Opportunity

By Steven Jaeschke, 2003 Nuffield Scholar

In September 2006, 11 Nuffield Scholars and two wives, including three fellow UK Scholars, had an opportunity to travel to China to participate in a Global Focus Tour segment. The participants enjoyed the company of each other, the tour leadership of Angus Christian, and the Austrade people, for detailed visits and insights of various businesses. I found this a very exciting concept to be travelling internationally again with a group of Scholars into a country and culture very different to any seen on my previous Global Focus Tour.



The 2006 Global Focus China Tour Group

It is amazing to see the amount of building and construction occurring throughout the Chinese countryside and as a result, the complex changes that China is experiencing socially, environmentally and politically are just as challenging. We could only enjoy a snapshot of a large nation on such a brief visit, but could clearly see the urgency with which such change is occurring.



Overlooking new and old Shanghai

Our trip began in Guangzhou; we later travelled to Nanjing, Shanghai and Beijing, and I concluded with a short trip to Shen Yang, including the surrounding areas of these cities. One highlight was the opportunity to travel and experience village life, food and culture about one-and-a-half hours from Guangzhou. This introduced us to a transition from the city pace, to this traditional country peace and quiet, where oxen are used for pulling the plough for rice farming.

Tractor quietly grazing



This contrast illustrated the social divide between farmers (peasants) and city dwellers. With 80 per cent of the population being peasants (and this may equate to 800 million in number), change is slowly occurring to upgrade people's skills and standard of living, particularly where factories require skilled labour. We enjoyed a traditionally prepared 10 course meal; we looked over the farmer's half acre farm and enjoyed the peace and quiet.



Gus cutting Fodder



Loaded

We spoke to local council leaders where local government policy is discussed and implemented and had the opportunity to visit some universities where research policies are discussed and implemented. We also visited research centres where research hits the ground. The noticeable aspect was the top down approach to policy and research.



Manufacturing tarpaulins



Hands-on packaging

There appears to be a very loose system for distributing perishable foodstuffs to the cities. Although somewhat unsophisticated by western standards, things find their way through the system. It is interesting to see modern apartment buildings and traditional 'wet-markets' operating within the same precinct. Markets we visited had perishable meats and offal products displayed in the open, with no obvious food safety issues.

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Trucks transporting perishable fruit, vegetables and meat, including fish and poultry at the end of each day, causing havoc with traffic were a common sight as we returned to our accommodation. The logistics of import and export freight, domestic transport, and distribution of food and other consumables is experienced at such a huge scale and where traceability and food safety is required, I would suggest very difficult with current systems. Plans are being implemented to continue to build a sophisticated transport system within the country.



Supermarket in Nanjing

Hydroponic vegetables

Traditional and cultural values of these supply systems will make it difficult to implement supply chain compliance obligations, for example refrigeration, 'best by', place of origin etc.

To conduct business in China, knowledge of the culture and language would be of great assistance. Their national policy appears to encourage joint ventures, employing expertise from other international businesses and therefore building their own expertise. While long term views are held for our own business ventures, Chinese tend to think shorter term and require short term returns. But many opportunities exist.

Brewing in China is one dynamic business, in which particularly South Australia has a vested interest, with sales of malting barley. One company we visited produced 50,000 tonnes of beer in 1985 and has expanded to 31 million tonnes of production in 2005; that is exponential growth.

And finally to again confirm China's ability to construct, we saw some huge building programs in Beijing with the Olympic stadium, the new airport in Beijing and, from history, the Great Wall. It is difficult to expand much more on this brief visit, but everyone immensely enjoyed the trip to gain a perspective of what China is achieving. We enjoyed each other's company and another great Nuffield experience. I plan to return.



The Great Wall outside Beijing

RETURNING SCHOLARS' REPORTS - EXECUTIVE SUMMARIES

(FULL Scholars' reports can be found at www.nuffield.com.au)

Biological Farming and Marketing

By Jonathan Shaw, 2004 Nuffield Scholar

Sponsored by:



My study topic was biological farming and marketing. I aimed to investigate non-toxic farming: the ideals, economics and practices involved. I wanted to find out how to grow highly nutritious produce that would benefit the health of farmers, consumers and the environment while being economically sustainable.

Whether it is grown organically, biologically or conventionally, the nutrient density of the produce is most important for healthy food.

Sustainable farming is combining the "triple bottom line" philosophy of economic, environmental and social factors, into a whole farm system. It involves balancing ideals with profitability. Triple bottom line means not only evaluating the financial viability of your business, but also making sure your business activities are not adversely affecting other people or the environment.

Balance was the main theme that came out of my study. Balance in lifestyle/work, ideals/reality and inputs/outcomes. "Diversity is the key to success"; balance comes through diversity. The biological farming philosophy is "doing nothing that will harm the soil life", which are the micro and macro organisms in the soil, ranging from earthworms down to fungi and bacteria. The philosophy of J I Rodale, the founder of the J I Rodale Institute, was "healthy soil, healthy food, healthy people".

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Principally, the minerals in the soil have to be balanced as the limiting factor is determined by the element that is in inadequate supply. Biological aspects then need to be considered: adding good humified compost is a good way of getting organic matter and microbes into the soil. Soil must then be fed and microbes in the soil enhanced. Molasses, fish and kelp are good food sources for microbes. There is also a need to reduce the amount of chemical and acid-treated fertilisers or buffer them with a carbon source, eg. humic acid, molasses, fish or kelp.

If the conductivity of the soil solution is raised too high by any fertiliser added, it can kill soil life and can even burn root hairs. In a well-managed soil the humus levels should rise every year or at least be maintained. Over-cultivating to break trash down burns up the organic matter, rather than letting the microbes convert it to humus.

The beneficial microbes in the soil have to be in adequate numbers to balance out the effects of any pathogens in the soil. They also help in creating air pockets in the soil, which helps give the soil what is known as 'structure'. Plant roots cannot survive without oxygen. Aerobic microbes from a good compost source are beneficial.

Most pathogens are anaerobic, so it is of paramount importance to have an aerated root zone and to manage moisture levels in an irrigated situation as water logging deoxygenates water.

Different methods of marketing were looked at: from large scale wholesaling with 365 day supply to supermarkets, down to retailing from the farm gate as well as supplying restaurants etc. The profit margin in direct retailing was obviously a lot higher than wholesaling although supplying large volumes wasn't an option. This kind of marketing relies on having a close large population, or developing a very good distribution system, which relies on strong alliances down the supply chain.

In the eastern USA direct marketing was very successful, as the population density is high. Farmers' Markets are a common event, personalising the producer to the consumer and giving consumers the confidence (or perception) that they are getting a fresher, cleaner and more nutritious product.

One thing that came up in my study was the health benefits of eating non-processed, naturally grown foods, not so much organically grown, but grown to produce fruit and vegetables or fodder animals are fed that is minerally dense. Not by just using NPK fertilisers but a whole range of minerals, vitamins and enzymes. Calcium, for example, is considered by biological farmers to be the king of all nutrients and the building block to life.

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Dry Matter Production and Value Adding in a Semi-Arid Environment

By Simon Turnbull, 2004 Nuffield Scholar

Sponsored by:  **Grains Research & Development Corporation**

The cattle industry in Australia has been likened to the US in the 1960s - with huge opportunities for growth in the future. I want to be part of that growth. We farm in an area with unreliable rainfall for crop production, but the capacity to produce high yielding hay and silage tonnage in Spring. Water allocations can no longer be relied on and I felt the potential for our property was in livestock production by value-adding to the crops we could consistently grow – hay and silage and some grain – through kilos of beef. The challenge for me was to utilise 400 mm rainfall and unreliable seasons to create a 12 month profit centre. I had to learn how to reduce risk by value-adding to our cropping system and suspected that value-adding would best come from beef production – something we had traditionally carried out in a paddock situation.

Nuffield and the GRDC gave me the opportunity to study systems that would minimise the effects of

drought while value-adding and becoming a low risk farmer in what is considered a higher risk region. We are able to grow crop with loads of potential but, without finishing rain, the result is average. Is there a point in time that we should bring these crops in and use them to complement another enterprise? How does this compare to taking the crop to maturity?

I studied dry matter production systems and value-adding using beef production, focusing on it in terms of a return per hectare.

When travelling through Ireland and the UK, I looked closely at silage production - visiting universities and research stations with particular interest in growing a complete stock feed ration. From there I travelled extensively through Alberta, Saskatchewan and Manitoba in Canada. At Lethbridge, Canada, there are one million head of cattle on feed within 50 miles of the city. The rainfall in this area was only 10 inches (250mm) plus about 4 inches (100mm) on beneficial snow. (In our region average rainfall is 400-600mm and in later years has been less than half). My time in the US was in the Mid West visiting a number of feedlots, universities, Pioneer Seeds and Monsanto.
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(FULL Scholars' reports can be found at www.nuffield.com.au)

Our competitors in the US and Canada also have droughts, but theirs are every year and are called winter. They have learnt to overcome it and we have to as well. Some of our international market competitors have as few as 100 growing days a year. In comparison, in our district we have only 30-60 days when pasture or crops won't grow. Our growing season is fantastic, with only a few weeks of the year where we will not get growth but our limiting factor is moisture. Moisture challenges have been largely overcome with no-till farming but the continuing question is "when will the season start and when will it cut out"?

Since returning I have built a 1000 head capacity feedlot, using all last season's crops as the feed source instead of waiting for harvest and hoping for a decent yield and taking the market price of the day. Since starting the feedlot at the end of 2005 we have only had 150ml of rain but have turned off 3000 head of cattle - double our traditional production.

The focus of our cropping system has now changed from aiming to produce grain, to giving priority to high quality silage. Silage potential is first priority in all planning, both of varieties and rotations, followed by the potential for hay production, grazing and finally, grain. Originally I felt hay would be quite important, but now I see the greater value of good silage and the use of baled straw and hay has become one of the lesser components. Grain gross margins become

more respectable when you add the value of the straw to the equation.

Our silage is generally cut from a cereal/vetch mix and the selection of the paddock is important due to the weed challenge on the property. However, the focus still remains on moisture management practices with controlled traffic and no-till farming essential to maximizing dry matter produced per millimetre of rain. Even with high grain prices, I can still make a profit in value-adding through beef production. Correctly made silage, which can have up to 20 per cent grain in the roughage, helps keep the grain volume down in a ration. The other advantage to the system is weather damaged or poor quality grain has a ready market in my own enterprise and I can value-add to what would be a discounted product elsewhere.

Consumption by an animal is the same regardless of whether it is the correct or incorrect ration – it's in my hands to make it the best ration. **It doesn't matter what kind of farmer you are – whether you are running cattle, sheep, growing grain – you need to be able to source or produce dry matter. You can't farm without it.**

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Large Herd Management Labour, Technology, and Freestall Barns: are they environmentally and economically sustainable.

By Paul Zuidema, 2004 Nuffield Scholar

Sponsored by:  LANDMARK
an AWB company

Every industry needs an influx of young people who have the motivation, enthusiasm and necessary skills to drive the farm business forward. The lack of capable people going into farming is a worry to me, which led me to apply for a Nuffield Scholarship, with a focus on labour management in a large herd, and also to a lesser extent, free stall barns and technology. With this in mind, I draw my conclusions and recommendations, which I hope, are applicable in Australia.

The one country that stood out for me was New Zealand. There is a very structured way of getting into farming:

- Apprentice
- Farm Manager
- Share Milker

- 50/50 Share Contract Milker
- Equity Partnerships
- Ownership

In the Northern Hemisphere, this structure is not available to young people. Farming businesses are mainly handed down to the next generation through family connections. Education, on the other hand is very good, as are necessary skills, but the opportunities are lacking.

Which begs the question, "what can we do in Australia to reverse this trend"?

FREE STALL BARNs

I do not see a future in free stall barns in Gippsland due to variable feed costs which come into play when moving towards that sort of system. It will probably work in the drier areas where you are closer to the grain and hay growing areas, and 'rainfall' is less of an issue with regards to effluent management.

I strongly believe that a free stall barn system depends very much in which area you farm. High rainfall will remain very much pasture/grazing systems with grain feeding in the dairy. In the drier areas of Australia, there might be a future for Free Stall Barns.
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(FULL Scholars' reports can be found at www.nuffield.com.au)

I base this on the following observations:

- High capital outlay in machinery, buildings & effluent equipment
- More control over milk production due to more control of feeding input
- Easier to manage labour
- Too many variables creep in, such as feed costs, cow losses
- More control over nutrients leaving the farm

TECHNOLOGY

Technology is an interesting subject as it depends on the farmer to make it work because he or she is the

only one who can press the enter button to activate the system. There are two components to technology – one for labour management and one to increase production. In Australia we have most to gain from labour saving devices – such as:

- Automatic (robotic) calf feeders
- Auto drafting units
- On farm mastitis testing
- Robotic milking systems

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The use of various producer structures and marketing tools to achieve better supply chain management and price stability

By Michael Hastings, 2004 Nuffield Scholar

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Agricultural producers all around the world are now faced with a new challenge to deal with in addition to the historic need of improving production efficiencies and dealing with the cost price squeeze - reduced numbers of retailers to purchase product in a global market. The traditional supply chains targeted supermarkets as the key retailers for agricultural product. The number of supermarkets has continued to decline with a number of the larger ones competing for market share with a least price strategy. This is a serious issue for farmers at the bottom of the value chain, who are often expected to absorb additional costs without price rises for their produce.

My studies investigated how producers were dealing with the issue of getting better supply chain management and price stability. Have we gone past the point where expansion at the production end is enough in order for farming businesses to survive or do we need to start investing in moving up the supply chain?

There is no doubt that in economies that are strong such as the UK, Canada, USA and Australia that the future of producing bulk generic agricultural commodities is becoming less viable.

Producers will continue to experience very large price fluctuations and need to manage these while competing with cheap imports. The reduction in the number of buyers of agricultural produce and less competition between them is also likely to create price caps.

Some individual farmers, farmer co-operatives or companies have dealt with this proactively by moving up the supply chain using tools such as bulking product, co-operative marketing, branding, product segregation and niche marketing to provide a means of being involved in setting prices and providing some market security. Some have shortened the supply chain through the use of farm shops and farmers' markets as a means to achieve price margins that make their primary production activities sustainable. Moving up the chain or using these tools requires different management and marketing skills. Careful planning needs to be carried out to ensure success.

Primary producers must be smarter in marketing and the market place if they want improved price stability. To do this it is important to develop co-operative or company organisational models that encourage farmers to work together and move up the supply chain to assist those that are unable to do this on their own. It is clear that investing and becoming involved further up the value chain in some form will become a more important investment choice in the future. The best way to predict returns is to invest into the value chain and be involved in setting returns.

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(FULL Scholars' reports can be found at www.nuffield.com.au)

Best practice canola production: Exploring biotechnology, agronomic advances and new grower techniques

By Andrew Broad, 2005 Nuffield Scholar

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- Australia's canola industry is in decline, with no improvement in five-year average yields, and total area seeded reduced by 44 per cent in five years.
- Canada has grown genetically modified canola for 10 years, yields have increased by 15.8 per cent over 10 years with total area seeded now five million hectares annually.
- GM and non-GM canola receive the same price on the world market.
- In the last 10 years Canada has produced tonnage of genetically modified canola equivalent to 50 years of Australian canola production.
- Canola oil is ideal for biodiesel and should put long-term stability in product demand.
- GM canola has assisted the Canadian wheat industry through rotational weed management options.
- There are yield advantages through hybrid varieties, particularly under moisture stress.
- There is an over reliance on glyphosate within the Canadian farming system, and an integrated weed

management strategy is essential to maximise the long-term benefit of GM technology within Australia.

- Length of growing season and moisture are the two most important components to maximising canola yields.
- Maintaining leaves on the stalk as the canola runs up to flowering is essential to achieve high yield. Test plot yields in the United Kingdom are reaching 7 tonne/hectare.
- Sound environmental management and genetically modified canola need to be promoted as complimentary to one another.
- In the future there will be a greater differentiation of specialty oil types within canola, for specific oil applications.
- Both the Australian farmer and the public are being poorly informed by well organised, anti GM campaigners.
- The cost of the Roundup Ready technology for the farmer is significant, and needs to be reduced in order to be consistent with Australia's low input/low output farming system.

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Commodity production in to the future – how does it look?

By Tracy Lefroy, 2005 Nuffield Scholar



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This Nuffield Australia Farming Scholarship was undertaken with the aim of investigating the future viability of the Australian agricultural commodity production industry. Further to this, to determine if value-adding should form part of this future. Commodity production is the mainstay of Australian broadacre agriculture however, declining terms of trade are making the economic sustainability of commodity production unfavourable – this in turn affects the social and environmental sustainability of agriculture. Both within Australia and internationally farmers are looking to add value to their agricultural produce as a way in which to improve sustainability. This study expanded the definition of value-adding to include relationships with customers, diversifying and investing off-farm. This research was conducted over a 12 month period spanning from October 2005 through October 2006 and included four months of overseas travel. During this time visits to New Zealand, China, Canada, United States, Italy, France, Holland and the United Kingdom were carried out.

Australia's comparative advantage within world agriculture lies in producing significant and consistent volumes of commodity food products, with a heavy focus on exporting. Commodity production in itself must change such that commodities are produced for a specific market and meet quality specifications as required for the end-use. Products must have a market place before they are grown. Australian commodities must be grown under quality assurance guidelines addressing not only quality issues but also environmental, social and economic parameters. Australian farmers also need to look to expand their businesses to include value-adding in some form, be that better alignment with end point processors, further involvement up the supply chain through investment or partnerships, investing off-farm or diversifying geographically to spread risk. Commodity production as we currently know it must change to become more market driven and tailored for specific end-uses. As an industry it is important that Australia maintains its reputation as a producer of high-quality food products for domestic and international markets. In addition to this Australian farmers need to hone their business skills so that they are equipped to seize new opportunities as they arise in the changing market place.

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Tour of Battlefields of France

Recent tours to the WW1 battlefields by our scholars have been voted a huge success and 2008 is the 90th anniversary of some significant Australian victories in France.

I thought it would be useful to gauge the interest, of those attending the 2008 International Conference, of a similar visit immediately prior to the Irish Tour. I would plan on 3 - 4 days visiting the 1916 - 18 battlefields on the Somme and in Flanders.

Don MacFarlane Awarded OFA Lifetime Achievement

The Organic Federation of Australia has recognised Donald MacFarlane, Dick McNeill, Betty Cornhill, Marjorie Spear and Yvonne Swindell (deceased) as organic pioneers in Australia and has presented them with the OFA Lifetime Achievement award.

Nuffield Scholar Don MacFarlane is well known as a farmer, a great conversationalist, a traveller and a former BFA board member. A father of six, he is a learned man who emanates his own thirst for inquiry to everyone around him and is always open to new ideas, an inspirer of many others and a grand old gentleman who will always try to find a kind and encouraging word for friends and colleagues.

Born in 1927, Don left school during World War II to work on the family farm. At 22 he matriculated in Agriculture and Veterinary Science by correspondence.

The future of agriculture in Zimbabwe

An interesting article was brought to our attention by Jack Milbank (2006 Nuffield Scholar) regarding Zimbabwe's agriculture. We are limited for space in this issue so if you are interested in reading about it you can view it at:

<http://africanagriculture.blogspot.com/2007/03/future-of-agriculture-in-zimbabwe.html>

China Tour - Six positions left

If you are interested in joining the China Tour from the 5th to 16th September 2007 there are six vacant places. The approximate cost for this tour is \$3000 plus airfares into China.

Please contact Jim Geltch on 03 5480 0755 ASAP directly to ascertain potential numbers.

In 1962 Don won a Nuffield Scholarship which encouraged him to become heavily involved in various farm organisations at local, state and federal levels. The Nuffield experience introduced him to many great agriculturalists and organics farmers, and he has continued to build links between his peers in several countries.

Almost 80 years on, Don continues to practice as an organic farmer, educator and biological farm tour leader.

He is a true visionary and dedicated to the organic movement. Every weekend he drives to the organic markets in Brisbane to sell books and spread the word – one of the regular voluntary educational roles he fulfils.

He maintains: "Agriculture must change, toxic inputs must cease, GE is not needed for it largely reduces yield and prevents nutrient density".

(Abridged version of an article published in *ACRES Australia*, Volume 14, Number 1, Feb- March 2007)

Scholars' Travel[b]log

We would like to introduce our Scholars' Travel[b]log. This replaces the Field Reports page on the Nuffield web site (old reports will still be readable) but now visitors can both read and add comments, creating a two-way dialogue in the process.

You can go directly there by typing <http://www.nuffield.com.au/blog/> or just follow the link from the home page. Reports can only be filed by travelling scholars, but anyone can add a comment and we encourage you to do so.

Currently there are reports from Ronald Thompson, Catherine Harvey and John Gladigau describing their experiences during their travels.

NUFFIELD EVENTS CALENDAR

DATE	EVENT	VENUE	HOST
1 st April	Scholarship Applications open	National	Nuffield Australia
26 th April	Dinner and AGM	Richmond	Nuffield TAS
11 th June – 22 nd July	GFP	International	Nuffield Australia
30 th June	Applications close	National	Nuffield Australia
17 th July	WA State selection	Perth	Nuffield WA
20 th July	SA State selection	Adelaide	Nuffield SA
20 th – 22 nd July	SA Dinner/AGM/Tour	Adelaide/Regional	Nuffield SA
23 rd July	QLD State selection	Brisbane	Nuffield QLD
25 th July	NSW State selection	Sydney	Nuffield NSW
27 th July	VIC/TAS State selection	Melbourne	Nuffield VIC/TAS
30 th July	NT State selections	Darwin	Nuffield NT
3 rd – 4 th September	National selection	Melbourne	Nuffield Australia
3 rd October	Scholar briefing/debrief	Fremantle	Nuffield Australia
4 th October	Tour of Innovative Enterprises	Perth Environs	Nuffield WA
4 th – 7 th October	Spring Tour	Fremantle/ Regional WA	Nuffield WA
5 th October	Innovative Farming Australia including Scholar presentations	Fremantle	Nuffield Australia
5 th October	Awards dinner	Fremantle	Nuffield Australia
6 th – 7 th October	Tour of Regional WA	Regional WA	Nuffield WA
6 th October	AGM	Fremantle	Nuffield Australia
24 th Feb – 2 nd Mar 08	Contemporary Scholars Conference	Melbourne	Nuffield Australia
28 th Feb – 2 nd Mar 08	Autumn Tour	Regional Victoria	Nuffield VIC

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