Growth Farms Update

January 2011, inside:

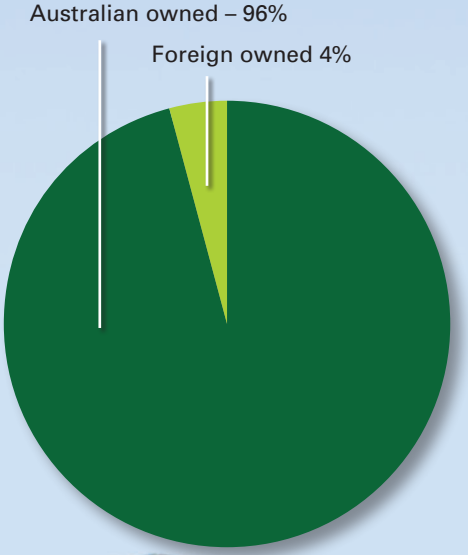
Who owns Australian Agriculture?

The last six months has seen the issue of ownership of Australian land become a mainstream talking point. So far it has been a rather interesting debate with large amounts of emotion and fear mongering and surprisingly little substance. Fortunately, to date, the government has been quite considered in its response.

One of the reasons for higher profile of the issue is that there is no formal means of knowing who owns agricultural land in Australia and it does not require any approval process unless the value of the investment exceeds $230 M. If greater than $230 M, Foreign Investment Review Board approval is required for the investment. This vacuum allows all sorts of information to be thrown around with no means of refuting it if it appears to be incorrect. The current government proposal for an audit of land ownership will provide facts on which we can base a considered debate. However it also runs the risk that it will provide ammunition to those who oppose foreign ownership of land and it could well be used as a political football.

In the meantime, the best guess as to the extent of foreign ownership is from government data which estimates 99% of farm businesses in dairy and cropping are family owned and of the remaining 1%, only a small proportion is foreign owned. This information refers to entities rather than proportion of land or proportion of production which may provide different answers if for instance the "corporate" or foreign owned entities are larger than the family farms.

Graph 1: Ownership of Growth Farms Australia managed assets



Obviously Growth Farms Australia (GF) has a vested interest in this debate in that a proportion of the assets that we manage are owned by foreign investors. However the proportion of the assets that we currently manage that is foreign owned is quite small (see Graph 1). The category of investors that represents the largest component of the GF portfolio is Australians who are currently residents oversees. The second largest group is Australian residents – often retired farmers who wish to retain their investment in agriculture.

This debate has some distance to go, but some important points to consider in amongst all the issues that will be raised include:

- One of the most important issues for Australian agriculture is that it remains efficient and highly productive over the long term. If it doesn't, it will wither and die regardless of who owns it, because it will not be able to remain competitive with international producers. This means we need to continue to improve productivity, we need to invest in on farm productivity improvement and research and we need a culture that is outward looking rather than inward looking. Family farms, particularly those on the larger

end of the scale are amongst the best at doing this and it is hard to imagine them not having a major role in the future of Australian agriculture.

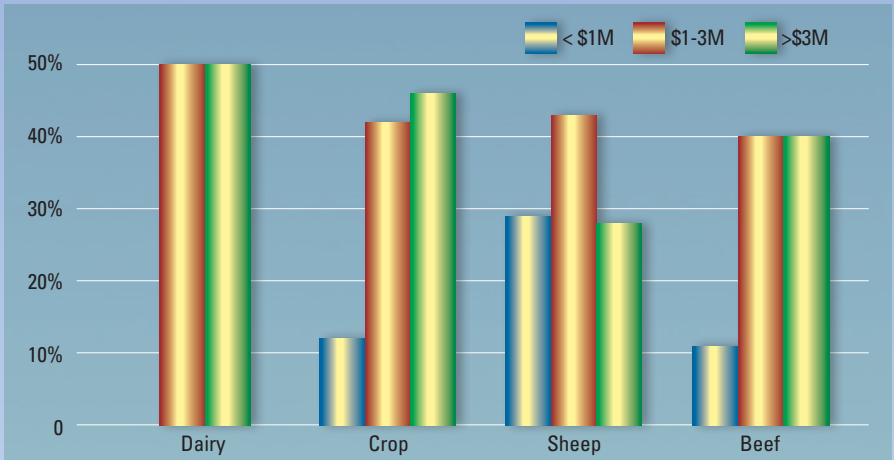
- Despite the success of the more efficient family farms, we still have a sector in which small producers are over represented (graph 2). The problem is largest in the sheep industry and less so in dairy. At current typical business scale, operating scale is a major determinate of productivity and hence profitability so policies that actively favour the retention of smaller less efficient farm businesses will constrain overall sector performance.
- Agriculture requires patient capital. The returns tend to be volatile from year to year and traditional investors, be they domestic or foreign, often have insufficient patience to reap the longer term rewards which are comparable to other sectors when both yield and capital growth are taken into account.

  Also the requirement for agricultural capital to be patient, or long term, often outlives the patience of the "corporate" investor who will typically make their entry exits at just the wrong time and do not have the patience to be rewarded in agriculture.
- Farm debt has doubled to approximately $60 B over the last five years. Drought has no doubt been a major factor in that increased debt. Such debt levels mean that a proportion of the agricultural sector is undercapitalised which will lead to poor performance of the farm business – decisions are made with cashflow in mind rather than profitability and this is often the start of a downward spiral. Anything that brings recapitalisation will help underpin a viable agricultural sector – the capital may be domestic but it may also be foreign.

Are we better with an undercapitalised and completely and domestic controlled sector or better capitalisation with some foreign investment and a more dynamic sector? This issue has long been recognised in the mining sector where the amounts of capital required for development would mean we would have a substantially smaller sector if it relied entirely on domestic investment.

A register of land ownership on its own will not change anything. In fact it could be backward step as it will inevitably become politicised. What we do need is a coherent policy that allows recapitalisation and productivity growth, and this will help ensure a future for the agricultural industries. The worst thing we could have is knee jerk responses to one or more proposed foreign investments, most often likely due to interest group pressure, which will only do more damage to our reputation as a safe and viable country in which to invest. GF

Graph 2: Farm value by sector



Source: ABARE Farm Surveys 2008-09

Land values – in a sweet spot?

It has been an interesting year for the agricultural land values in southern Australia. The market could be best described as being flat, possibly declining slightly over the last year. Once again it seems to be weaker at the larger end of the market (>$5M) where liquidity is an issue because these farms are beyond the reach of many of the family farms that are looking to expand. There is certainly an overhang of properties on the market with low clearance rates at auction and quite often no bids.

We are now seeing, and acquiring, good grazing farms for around $250 per dry sheep equivalent (DSE), down from over $300 several years ago. The $250/dse represents the purchase price based on current productivity and in a number of cases a low risk productivity improvement program will add additional dse's quite cheaply and bring down the total cost per dse to under $200. In the dryland cropping our target is to be buying land for less than $1000/t of long term average wheat yield. Again we are seeing a number of opportunities below this which represent good value.

Concurrently we are seeing increased returns, particularly in the sheep, beef, crop and cotton sectors. These increased returns are being driven by a combination of average or above average seasons (unfortunately in quite a few cases, too far above average when it comes to rainfall) and good commodity prices. These two factors are pushing up operating yields into the 5-6% (or higher) range for the broadacre enterprises when using average prices for the last year. On spot prices some yields are higher again ,but one has to be brave to use current spot prices as the basis for calculating long term operating yields.

Historically these high yields have only lasted a year or two as the higher returns enable debt reduction and/or surplus cash which then translate into increased interest in acquisitions and a rising market. How far away are we from that scenario? The short answer is we don't know and it will depend on a number of factors:

- How the 2010 harvest ends up in the cropping regions. Anecdotally the general feeling at this stage is that although the harvest has been difficult to manage, and grain quality discounts are widespread, above average yields will lead to reasonable profits on most farms.
- Commodity prices over the next year or two. With low livestock numbers and low world grain stocks price outlook seems positive.
- Seasons. Currently the season in Eastern Australia is exceptionally good. This will ensure good soil moisture levels and will underpin reasonable grain yields for the 2011 grain harvest.
- Global financial conditions and general confidence of investors as well as availability of credit.

Under favourable conditions we would expect to see land values increase over the next year or two. If conditions are unfavourable we would expect to see further declines. Overall it is probably a much better time to be a buyer than a seller. GF

Evidence base agriculture – can we get there?

J. M Virgona* and G. Daniel†

Evidence the basis for decision making in agriculture

A sound decision making framework must have sound scientific evidence at its centre. However, recently, this has often not been the case in management of grazing systems and agriculture. The result has been poor performance in terms of agricultural profitability or natural resource management. Another negative outcome of lack of evidence based agriculture has been the emergence of outlandish products and practices which have no demonstrated benefits. Our central aim is to provide an evidence-based framework for the evaluation of practices in agricultural enterprises, to avoid flawed agricultural practice and allow maximum productivity and profitability.

Evidence Based Medicine and its applicability to modern agricultural practice

The pioneers of the "evidence based medicine" (EBM) idea recognised that the wide range of medical information available demanded a need for evidence to be central in the decision making process. They also took into account that medical practice has never been simply the application of scientific findings to the management of patients; hence evidence had to be integrated with clinical experience. EBM also recognised that there are different standards of evidence that are acceptable depending on the nature of the subject being investigated, ranging from randomised trials to clinical surveys. Evidence based medicine has led to the development of practice guidelines that synthesise the best evidence from the medical literature. In addition to this was the development of public trials registries which ensured all experiments and studies published adhered to a high standard of transparency and legitimacy in medical research (see the Australian and New Zealand Clinical trials Registry at http://www.anzctr.org.au/faq.aspx). EBM has features which are applicable to agricultural practice in general. As with EBM there is a clear need in agriculture to ensure that evidence is central in the decision making process.

In agriculture, evidence is not as extensive or a readily available compared to the medical field. However, evidence should still be utilised to its full extent, this depending on the quality of evidence. The quality of evidence is determined by its statistical nature, for example randomised trials that have been correctly statistically analysed and carried out in an agricultural system very similar to the one in which the information is being applied are stronger evidence than anecdotal observation. The higher the level of risk involved in the decision, the higher the quality of the evidence demanded.

Flawed practices are underpinned by unsound evidence: the current need for an evidence basis

The current need for an evidence basis is exemplified when considering the adoption of practices/ideas which are still commonly used despite having little or no evidentiary support:

- The efficacy of a range of liquid fertilisers derived from "natural" products (28 in all, including seaweed) was disproved by Edmeades (2002) in a review which was the outcome of a broad survey of the all obtainable research results.
- Using scanty and obscure evidence, a group of US soil scientists had developed the concept of an 'ideal' soil (referred to as the 'Albrecht' system) where the ratio of calcium (Ca) to magnesium (Mg) was more important **than** the absolute levels of the cations present, despite hard scientific evidence that ideal soil is defined as having a base saturation ratio, Ca:Mg:K, in the ranges of 60-75%:10-20%:2-5%.
- Despite highlighting the importance of P in improving pasture productivity in such campaigns as the Grasslands Productivity Program (see Trompf and Sale 2000) and the decades of research that preceeded it, survey results on randomly chosen paddocks reveal that a high proportion operate at well below adequate soil P levels.

Policies which ensure evidence is central in decision making about practice and technology in commercial agriculture

Due to the multi dimensional nature of agriculture – inclusive of a multitude of organisms in a spatially and temporally varying natural and human environment - it is impossible to make overarching decisions incorporating all forms of evidence, instead, the "best forms of evidence" must be used. By "best forms of evidence" we simply mean well conducted experiments at a scale and scope that are directly applicable to the production system being considered. Guidelines for simple judgements of the quality of evidence, to determine whether it is of use or is misleading are outlined below:

1) **Publication** - the onus should not be on the reader to make that judgement of validity, publication can provide this validity
2) **Analysis** - some form of statistical analysis must have been performed (experimental design must be sound, tables and graphs must be correct, with scale in particular checked, statistics must be favoured over vague commentary of 'trends' and clarification must always be sought).
3) **Testament** - Pictures of happy families, claims of a more relaxed lifestyle are all very well but if there is not enough information made available to allow you to judge at what costs these may have been obtained (for example a measure of the impact on profitability) then the testament is of little worth.
4) **How do you know that?** - One would hope that the relationship between consultant and client could be robust enough for the client to pose questions regarding the sources of evidence drawn upon. Simply put, the question "how do you know that?" would hopefully be met with a sensible, evidence-based reply.

The policy that is now used by GF explicitly relies on evidence, wherever possible, in the evaluation of new technologies. This means that a strong premium is placed on verifiable trial results over all other sources of information.

* *EH Graham Centre for Agricultural Innovation Charles Sturt University, Wagga Wagga, NSW*
† *Group Manager, GF, "Camoo", Tumbarumba*

For a technology to be of interest it must satisfy, or be likely to satisfy the following four criteria: plausibility, veracity, applicability and cost benefit.

1. **Plausibility** - product claims consistent with other verifiable knowledge obtained from the relevant scientific discipline, circumstances in which technique is to be applied are similar to other circumstances where verifiable results have occurred.
2. **Veracity**- the argument leading to the claims must be able to be backed up by current knowledge based upon well designed and repeatable experiment or survey.
3. **Applicability to the Farming System** - the new technology should be considered in the context of the farming system and any flow on effects application of the technology may have in other parts of the system. This should be viewed with particular reference to the overall profitability of the system, and the risks around this profitability.
4. **Cost/Benefit** - The product, if shown to be likely to be effective in some way, must be the cheapest alternative to obtain that response, and must show a positive cost benefit.

Conclusion

If the simple guidelines above were followed rigorously then many fewer mistakes would have been made in agricultural production systems in recent history. While the nature of agricultural problems solving is such that an evidence based medicine approach would be difficult to mimic, it is critical that all involved in the production and consumption of information on products and practices should ensure that evidence is the basis for action. We propose that there is a role for grassland societies and other producer-based bodies, rural industry research corporations and scientific journals to work together to produce well researched reviews into areas of contention in agriculture that lead to practical evidence-based guidelines that can be implemented on farm. In doing so we would be taking positive steps towards **evidence based agriculture.** GF

This article a summary of a longer paper which can be found at ***http://www.growthfarms.com.au/documents/Evidencebasedagriculture-canwegetthere.pdf***

OH&S Track Record – How does GF compare?

Ensuring a safe work place is a priority for GF. In the last issue we discussed our approach to OH&S. In this article we provide a snapshot of our track record.

One of the difficulties in reporting OH&S results is that there is not a lot of good industry information to use as a basis for comparison, partly because there is widespread under reporting of incidents on many farms. To help overcome this we have compared the GF track record to that of another large scale agricultural operator.

To help make the figures meaningful they are expressed as injury rates per million hours worked.

The results from the last three years are shown Graph 3 opposite.

Whilst we would like to be able to prevent all injuries, it is just not realistic. However we also record the severity of any injuries and want to avoid the serious incidents. Below is the breakup of the GF incidents overt the last three years according to their severity.

To date the majority of incidents have been in the less severe range and we are doing all we can to keep it there. That is not say something serious won't ever happen because not everything is preventable, however our approach to OH&S aims to minimise the chances of that happening. GF

Graph 3: Growth Farms Australia OHS and track record

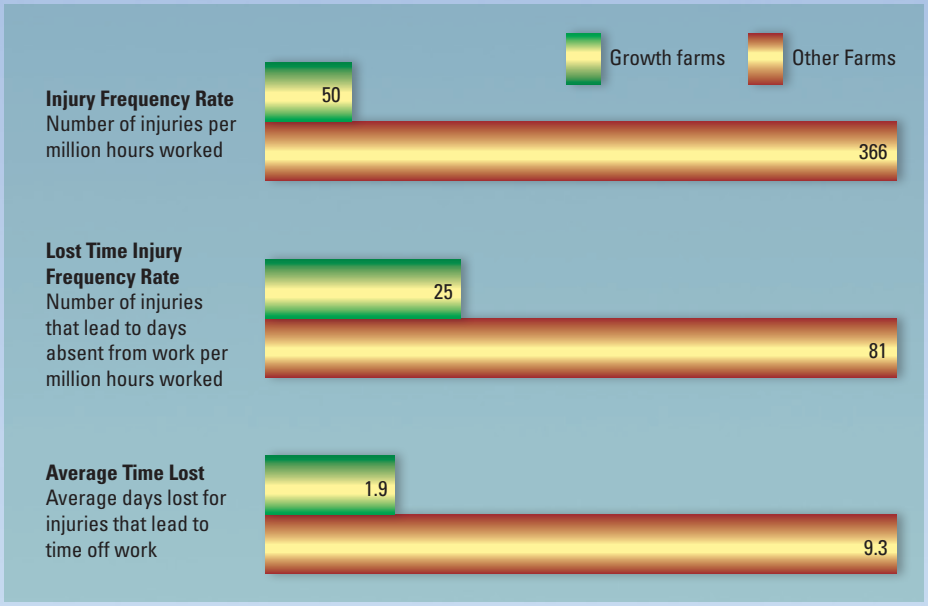


Table 1: Severity of Growth Farms Australia incidents

Proportion of GF Incidents	Definition
0%	Irreversible disability/impairment sustained or fatality
0%	Long term health effects, high level medical attention required eg hospitalisation or surgery required
50%	Short term health effects, medium level of medical attention required eg, multiple doctors visits or specialist treatment required
50%	Low level medical attention required eg first aid kit or minor doctors visit