Consider the alternatives to buying or selling agricultural land

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Take Home Messages

"I can't change the direction of the wind. But I can adjust my sails" – Anon

- Historically, Australian farmers own the land they farm. Given that a large capital cost is associated with land purchase, businesses may seek non-ownership options.
- Alternatives to buying or selling agricultural land do exist.
- Leasing and share farming agreements are the most commonly utilised alternatives in Australia but still play a relatively minor role.
- Other models also exist and need consideration.
- Negotiated and executed properly such arrangements have the ability to generate profit and wealth for farm businesses and landowners alike without jeopardising business survival.
- In order to create wider scale adoption and success of non-ownership models two key issues need addressing:

1. Education of investors in rural property that their returns will be affected by seasonal conditions, and

2. The duration of lease and share farm agreements must be increased to a minimum of 5 years to allow a low-risk, profitable farm business plan to be executed.

Introduction

Purchasing land represents a large capital cost. Not all businesses who wish, or need to initiate growth, can sustain this cost. Conversely, for those moving on from farming, relinquishing ownership of the land asset may not be the best option either.

Alternatives to ownership changes do exist and must be considered. The two obvious models being leasing and share farming. Clearly, leasing and share farming are not new concepts but in Australian agriculture they play a minor role with only 6% of total farm land area being under such arrangements compared to 35% in the United Kingdom and almost 50% in the USA (Ashby 2003).

This article compares the weaknesses and strengths of common non-ownership options and proposes an alternative to the norm. Some step by step guidelines to planning and executing a lease or share farm agreement are also provided.

Comparison of current arrangements

Leasing

Typical characteristics of a lease arrangement are:

- The lease rate is a fixed sum
- Lease payments are generally in advance in 'lumpy' installments
- The period is pre-determined, usually 3 years

- The farmer assumes full management and decision making control
- The farmer assumes all the seasonal, production and commodity risk
- The landowner relinquishes control (except for restrictions that may have been enforced through the lease agreement)
- The landowner assumes no seasonal, production or commodity risk but does share a proportion of the farmer's business risk
- The landowner has a fixed, predetermined income.
- The landowner loses primary production status from a taxation view point.

The result of this current lease methodology is that regardless of the season or the level of production, one party will be forgoing opportunity. In good seasons the lessee will make a far greater return than the landowner, and vice versa in poor seasons.

Traditionally, lease values have been established in cropping situations as 5-8% of the land's purchase value.

In recent years lease values have moved above this range. For example, the average land price achieved during 2004 and 2005 in the Horsham municipality was $2632/ha ($1065/acre) (PRISM, Department of Sustainability and Environment). The expected lease range at 5-8% of land value would therefore be $130-210/ha ($53-85/acre). Actual values achieved during this same period were $185-235/ha ($75-95/acre) so growers have effectively been valuing lease land at 7-9% of land value.

It is difficult to see lease values sustaining these levels given the recent and significant rise in crop production costs (particularly fuel, fertilisers, labour and freight) and poor farm business performance as a result of dry seasons.

Under a lease arrangement the farmer assumes all the risk and supplies all the management, machinery, labour and inputs. The returns must justify the exposure!

Share farming

The typical characteristics of a traditional share farm arrangement are:

- The sharefarmer and landowner share the expenses and proceeds of the crop in agreed proportions depending on each party's contribution.
- Long-term security is generally not present for the share farmer
- The sharefarmer makes no payments to the land owner until crop proceeds are available and the payments made are in proportion to the total proceeds.
- The landowner generally accepts a lower return on investment than if the owner operated the land themselves (not always the case depending on scale and management factors).
- The landowner's income is at the mercy of both the season and the skill of the sharefarmer (both production and marketing skill).
- The landowner will generally retain primary production status for taxation purposes provided their involvement in the business is more than a passive one (payment of expenses relating to ownership of land is not sufficient).

The biggest limitation to this type of arrangement for many landowners is the potential requirement to provide working capital. Furthermore, the return the landowner receives on their investment in land and inputs is also subject to the skill of the grain grower – this can be another unquantifiable risk!

The advantage for the grain grower is a lower capital requirement (no lease owing) and limited expenditure on inputs (shared with owner) thus reducing the size of the loss in poor seasons. There are also cash flow advantages in share farming as opposed to leasing.

Table 1 details the contributions from both the sharefarmer and landowner in common share farming splits. Obviously there are a multitude of variations dependent upon the contribution of each party and the perceived risks involved.

Table 1: Typical income split and contributions from both parties involved in share farming arrangements

Income Split (sharefarmer : landowner)	**Sharefarmer contribution**	**Landowner contribution**
70 : 30 Cereals only – higher risk environments	Machinery Labour All inputs	Land only
80 : 20 Pulses & canola – higher risk environments	Machinery Labour All inputs	Land only
60 : 40 Higher risk environments	Machinery Labour 50% inputs	Land 50% inputs
50 : 50 Lower risk environments	Machinery Labour 50% inputs	Land 50% inputs (Lime/gypsum if required)

An alternative mechanism to share risks and spoils

There are inequities and risks for both the land owner and the lessee / share farmer under current arrangements that potentially act as a barrier to wider adoption of tenant farming. An alternative is a flexible rain-based lease arrangement that addresses these inequities.

The concept involves a paradigm shift away from leasing land to leasing rainfall, given that rainfall is the primary limitation to crop yield and subsequently to farm business performance.

Under the proposed flexible rain-based lease arrangement, the following occurs:

- The landowner accepts a proportion of the seasonal risk - a reality of making an investment in agriculture! This is a feature of current share farming agreements but not lease arrangements.
- The grain grower accepts only a proportion of the seasonal risk!
- The landowner has no exposure to the management risk. Exposure to the farmer's management skill is a potential weakness of current share farm arrangements.
- The grain grower accepts all the management risk. If the farmer has exceptional management skills why should the land owner derive monetary gain? The sharefarmer does not gain financial reward from any capital appreciation he creates in the land owner's asset!
- A floor and ceiling value should be negotiated to protect both parties in the event of an exceptional circumstance in weather.

This system revolves around pricing the rainfall correctly, getting the management right and sharing the spoils! Theoretically, and within reason, the more it rains the greater the yields and profits and the greater the ability of the business to pay for land access. Conversely, in low rainfall seasons when crop yields, profitability and the ability to pay for land access is reduced, so too are lease payments.

The success of the agreement for the landowner therefore revolves around the ability to capture additional income in above average seasons. Whilst for the grain grower, the success revolves primarily around their ability as a manager to convert rainfall into grain.

By way of explanation, I shall use the Horsham district lease example again. Horsham's long term average annual rainfall is 450mm and it long term average growing season rainfall (GSR) is 320mm. In its simplest form, valuing lease land on rainfall, concentrates on growing season rainfall (although more complicated, it is possible to put a value on the contribution that non-GSR rainfall makes to crop performance).

I have valued GSR at $0.54/mm/ha. This is a theoretical value used by way of example not a recommended value! It is both possible and sensible to establish a rainfall price matrix which takes into account other factors such as commodity price outlook, crop type suitability etc.

Table 2: An example of the impact of growing season rainfall on lease prices under a flexible lease agreement when GSR is valued at $0.54/mm/ha.

Decile	**Rainfall (mm)**	**Lease value**	
		$/ha	**$/ac**
3	147	79.4	32.10
5	320	172.8	70
8	464	250.6	101.4

An analysis of returns to both the landowner and grain grower is presented for three land access scenarios – a 50:50 sharefarm arrangement, a fixed lease agreement and a flexible, rain-based lease agreement (Table 3).

By introducing a flexible, rain-based lease agreement the benefits to each are:

To the grain grower:

- The cost of land access is proportional to rainfall and the business's ability to pay
- Minimises the impact of poor seasons at the expense of the landowner - this is an opportunity cost to the landowner not a cash expense!
- Shares the spoils in good seasons.

To the landowner:

- The opportunity to capture additional profits in good seasons.
- No working capital requirement.
- No exposure to the grain grower's management skill.

The trade-off for the landowner is that returns will be poorer in dry seasons however never negative as can be the case in a share farm arrangement.

The actual figure paid for rainfall should be influenced by secondary drivers of production and profitability such as weed pressure, disease potential, commodity outlook etc.

In order for such agreements to become a reality it will be necessary to re-educate investors in rural property that their returns will be affected by seasonal conditions.

Concluding remarks

Alternatives to buying or selling agricultural land do exist for businesses wishing to remain and expand as well as those seeking to move on and pursue other interests.

The two most utilised alternatives to land ownership changes are leasing and share farming agreements. Whilst they are common concepts, they play a relatively minor role within Australian agriculture.

Other models also exist and need consideration.

Negotiated and executed properly such arrangements have the ability to generate profit and wealth for farm businesses and landowners alike without jeopardising business survival.

Two key issues that need addressing in order that progress is made are:

1. Education, or re-education, of investors in rural property that their returns will be affected by seasonal conditions (retired farmers are often the worst offenders), and
2. The duration of lease and share farm agreements must be increased to a minimum of 5 years to allow a low-risk, profitable farm business plan to be executed.

References

Ashby, RG. Successful land leasing in Australia: A guide for farmers and their advisers. RIRDC (2003).

Table 3: An analysis of returns for both the land owner and grain grower under three different land access agreements.

	Sharefarm (Typical 50:50 split)						**Fixed lease ($173/ha or $70/ac)**						**Variable lease ($0.54/mm/ha)**					
Decile	3		5		8		3		5		8		3		5		8	
Who?	LO	GG	LO	GG	LO	GG	LO	GG	LO	GG	LO	GG	LO	GG	LO	GG	LO	GG
Income ($/ha)	80	80	322	322	524	524	-	160	-	644	-	1048	-	160	-	644	-	1048
Machinery/Labour($/ha)	-	55	-	60	-	70	-	55	-	60	-	70	-	55	-	60	-	70
Inputs ($/ha)	46	46	60	60	81	81	-	92	-	120	-	162	-	92	-	120	-	162
Gross Margin ($/ha)	34	-21	262	202	443	373	-	13	-	464	-	816	-	13	-	464	-	816
Lease ($/ha)	-	-	-	-	-	-	-	173	-	173	-	173	-	79.	-	173	-	251
Surplus ($/ha)	**34**	**-21**	**262**	**202**	**443**	**373**	**173**	**-160**	**173**	**291**	**173**	**643**	**79.4**	**-66**	**173**	**291**	**250**	**565**

LO = landowner GG = grain grower