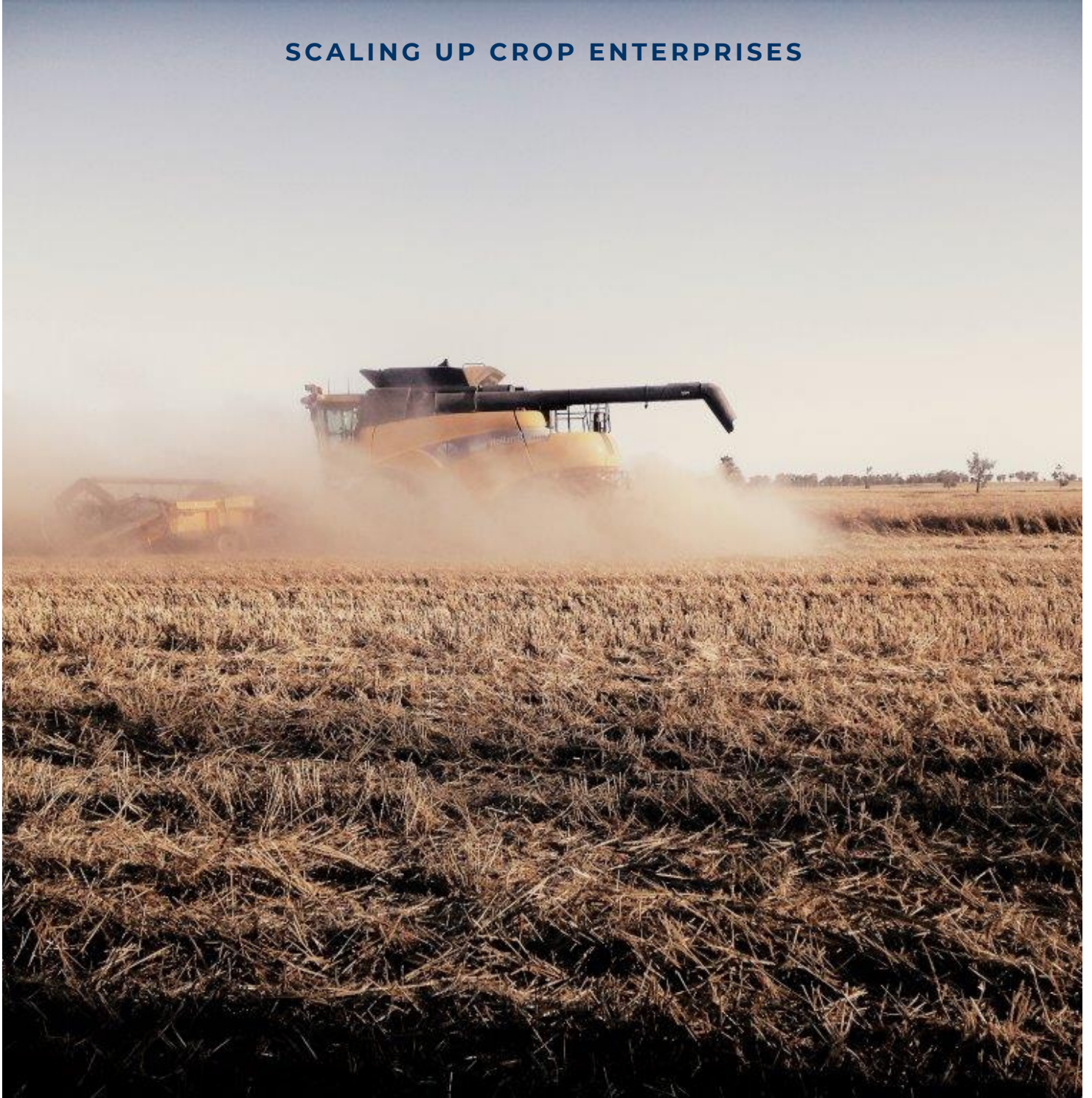


SCALING UP CROP ENTERPRISES

WHAT CREATES MORE WEALTH - A SMALL LAND
PURCHASE OR A LARGE LAND LEASE?



SCALING UP CROP ENTERPRISES



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Part 1: Where does the capital go?

This is the first of a series of articles on scaling up crop enterprises. The analysis moves beyond simple headline comparisons of farm land leasing (as a tenant) with a land purchase and operate model to explore some of the complexities in such a comparison. The analysis uses current land price, lease prices and

operating returns to demonstrate the interactions between these components on wealth creation when expanding the farm. This is the type of analytical approach and presentation of data delivered in Agrista's recently released Farm Leasing for Growth Course. Further details on the course can be found at <https://www.agrista.com.au/leasing-business-growth>

Background

Last year we compared the business case for leasing farm land with purchasing farm land suited to livestock enterprises. A key finding of that analysis was that most of the capital required to lease land suited to livestock enterprises was invested in livestock. This differed to a land purchasing investment where most of the capital was invested in the land. This difference in capital allocation led to a difference in scale between leasing and purchasing of five times assuming the same level of capital investment. The capital intensive nature of livestock operations is different to crop operations so this article will compare leasing with purchasing land suited to cropping.

What to analyse

The challenge in presenting an analysis that compares leasing with purchasing farmland is establishing the components of the investment analysis that constitute a reasonable comparative assessment. Should assets of similar scale be compared, or is it more appropriate to conduct the analysis based on the comparison of like-for-like capital requirements?

Comparing a land purchase and a land lease of the same operating scale requires very different levels of capital investment so it is not really an appropriate comparison. A more appropriate approach is to compare the same level of funds invested in leasing and purchasing. When comparing the same capital investment an adjustment for scale is made on the basis of the differences in requirement for the capital.

The next question is how to compare the business performance and assess the best option? This analysis uses a comparison of the discounted cumulative cash position (after interest and tax) at the end of ten years, inclusive of the value of capital gain with all liabilities repaid at the end of the ten year period.

This assumes that all land and any additional plant, if purchased, is sold at the end of the period assessed. The period assessed is 10 years as this represents two five-year leasing cycles.

Discounting is the application of a discount rate to each year of cashflow to account for the time value of money. In layman's terms the discount rate is the application of opportunity cost to future earnings.

Existing farm scale and performance

As this analysis is about increasing scale it is assumed that there is a pre-existing business with a level of existing operating performance.

The analysis is conducted assuming an existing crop business with scale of 2,000 hectares. The business, in its pre-expansion state, has a total asset value of \$25.8 million with land accounting for approximately \$23.5 million and plant and equipment accounting for approximately \$2.3 million. The business is generating a four percent return on assets from a gross profit of \$1185 per hectare, an enterprise cost structure of \$415 per hectare and an overhead cost structure of \$220 per hectare delivering \$550 per ha in EBIT or operating profit. This level of return is based on the results from GRDC/CSIRO cropping systems experiments over a four year time series but with prices adjusted to reflect more recent grain pricing.

A large scale lease or a small scale purchase?

The additional investment of \$2 million is assumed to be used to fund lease costs, operating costs and the first year of interest in the case of the lease and land purchase costs including stamp duty, operating costs and year one interest costs in the case of a purchase. The assumption has been made that the machinery on the existing farm has the capacity to cover the additional area but given the magnitude of the difference in scale a scenario testing this assumption will be assessed.

The scale of the expansion has been calculated by dividing the per hectare costs into the total investment funds. The funding available results in an area of 1,810 hectares of leased land and 151 hectares of purchased land. This equates to a magnitude of scale difference between leasing and purchasing of 12 times.

Where does the capital go?

Figures 1 and 2 (below) show the differences in the allocation of capital between leasing and purchasing with the majority of capital requirements in leasing going towards operating and lease payments while the majority of the contribution in a land purchase goes towards the purchase costs of the land. This assumes that the existing plant and equipment can adequately cover the area leased or purchased.

Figure 3 (below) shows that additional plant investment of \$300,000 results in lower relative proportions of the \$2 million investment to lease and operating costs. This equates to a marginal capital cost of \$195 per hectare. Where additional investment of \$300,000 in plant is required, the area cropped falls from 1,810 hectares to 1,540 hectares.

No additional investment in plant has been allocated to the land purchase and operate model as it is assumed that the marginal scale of 151 hectares can be managed with no additional production or operating cost relative to the existing business.

This results in a significant cost in net discounted earnings from leasing over the ten year period primarily because there is less area cropped and thus less revenue. The addition of \$300,000 in plant to the capital costs results in a reduction in cumulative 10 year discounted net after tax earnings from \$674,000 to \$530,000. This also weights the analysis in favour of land purchasing.



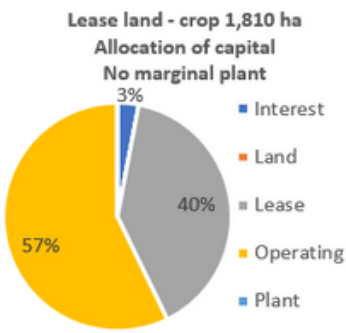


Figure 1. The majority of capital in crop leases is operating

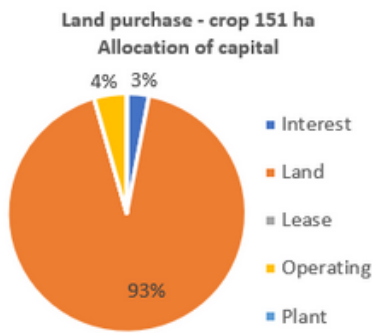


Figure 2. Land accounts for most of the capital when purchasing

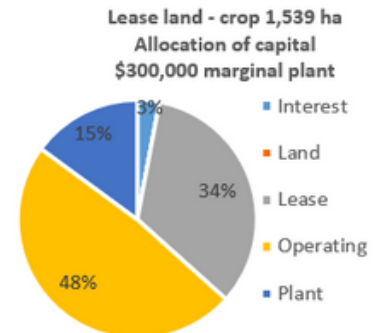


Figure 3. Additional plant requirements change capital allocations

What does this mean to you?

The apparently simple question of what delivers more wealth – farm land leasing or buying and operating is not so simple. The first hurdle – the allocation of capital in an investment in farm land leasing or farm land purchasing demonstrates the first point of many sensitivities in this analysis. A pertinent issue for consideration when comparing a lease and operate model with a purchase and operate model is what is the marginal machinery investment. In the next article we look at land value assumptions and outputs of analysis comparing lease and operate with purchase and operate.

For more information on Agrista’s Farm leasing for growth course head to <https://www.agrista.com.au/leasing-business-growth>

Earlybird Discount

Until 31st December 2021 the FARM LEASING FOR GROWTH course is available for \$650 + GST (full price is \$750+GST). To access your \$100 discount, type EARLYBIRD in the coupon code box on the left hand side of the screen and then click the green box to apply the discount. Click [HERE](#) to access.