Future Orchards Article for the Australian Fruitgrower
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Orchard Profitability – Strategies and Management

by John Wilton
Horticultural Consultant, AgFirst

Since its establishment the Future Orchards 2012 programme has produced a number of papers on this topic and these are available on the APAL Future Orchards 2012 website.

Below is a list of the more relevant papers:

- "Block Profitability" – Ross Wilson, Orchard walk notes, June 2007
- "The FO 2012 Roadmap Presented Over the Past Two Years" – Ross Wilson, John Wilton and Craig Hornblow, May 2008
- "Indicators of Success" – John Wilton and Ross Wilson, Orchard walk, March 2010
- "Long Term Planning for 2012 and Beyond" – Ross Wilson, June 2010
- "Short Term Planning" – Steve Spark, June 2010
- "The Key Drivers of Orchard Profit" – Craig Hornblow and Ross Wilson, June 2011
- "Growing High Quality Fruit at an Internationally Competitive Cost of Production" – Ross Wilson, November 2011

Measure Profitability

The first steps in developing a management strategy for the orchard business is to measure profitability. To be of real value this needs to be done down to individual variety by orchard block detail. Also, because orchard profitability varies greatly from year to year by variety and block, this profitability analysis needs to cover more than one year, certainly a minimum of two years, and preferably a longer period.

As pipfruit tend to be biennial in their cropping behavior, where possible, it's a good idea to cover several biennial cropping cycles.

Benchmark Profitability

This will establish how well your orchard business is performing relative to others.

The Future Orchards 2012 website reports on surveys on orchard business analysis that were done in 2008 and 2010. These give data on orchard performance in each of the years that data was collected, and determines both average and upper quartile averages. Measuring your orchard profitability against the orchards in these surveys is a good starting point.

The surveys also show the range of production costs found, as well as yield and pack-out levels.

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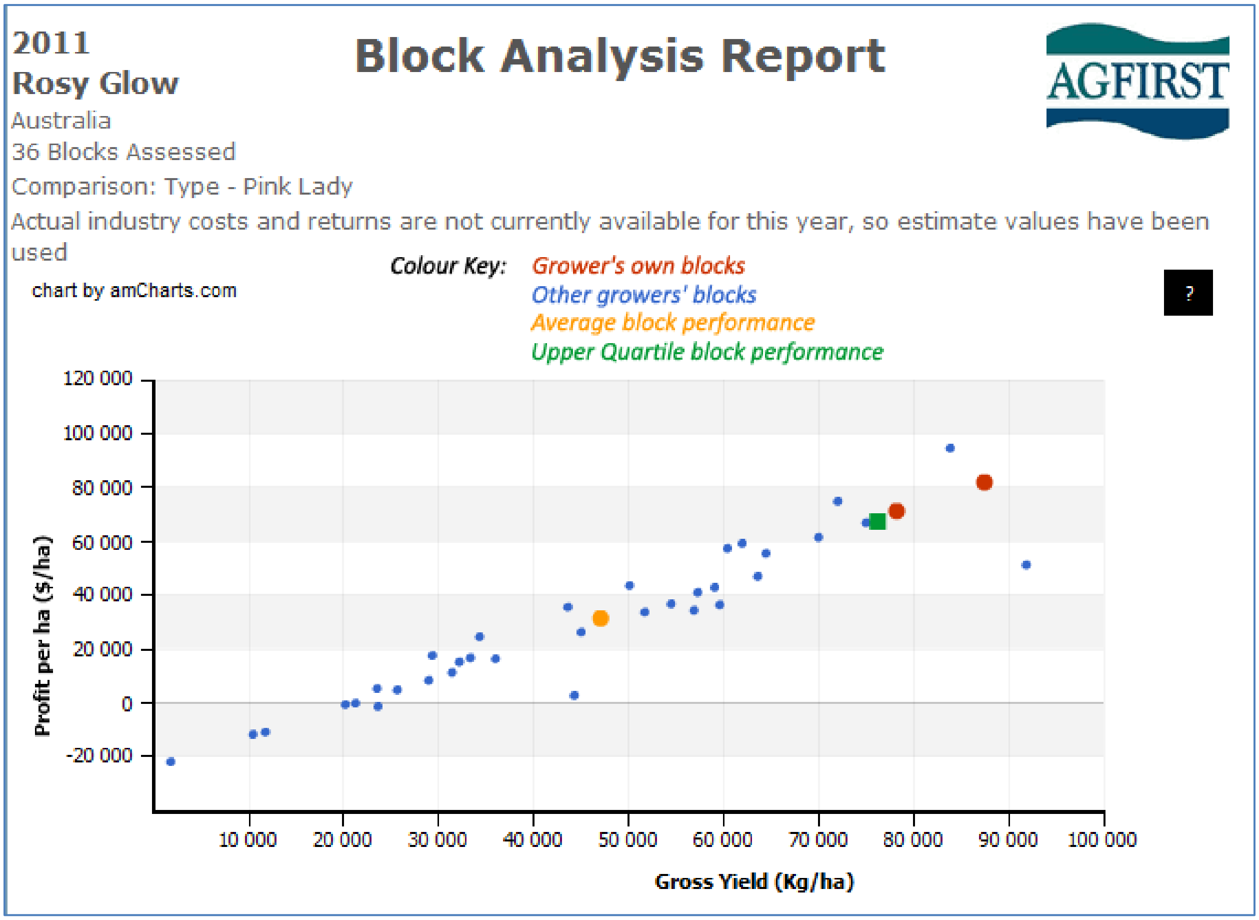
At the individual orchard block level by variety, our OrchardNet™ tool will enable you to benchmark block profitability by variety with other orchard blocks on this database.

Figure 1 below shows a block analysis report from OrchardNet™.



The Components of Profit

In simple terms:

Profit = Revenue less Costs
Revenue = Yield x Price

While costs are important, generally they have less impact on business profitability than revenue does.

On the orchard, if one assumes that pest, disease control, pruning and thinning are classed as orchard overheads and not directly related to yield, 75 to 80% of the "on orchard" costs are overhead costs. Harvest and post-harvest costs, including marketing, on the other hand, are production related.

Maximising yield, and particularly fruit quality, will lower production costs and increase profit, ie, widen the margin between revenue and costs.

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On the orchard it is yield and quality that determine profit.

Figure 2: If every apple in this bin is Grade 1 quality, packout will be high and harvest plus post-harvest costs per box of Grade 1 fruit low. This line packed out at >95% Grade 1. It can be done.

Packhouse charges are usually linked to the number of bins of fruit produced; so the higher the grade 1 recovery, the lower the unit cost for packed product.

Expressed as cost per unit of grade 1 fruit; harvest costs per unit falls with increasing fruit quality.

The harvest objective, then, is to maximize the quality of fruit in the bin.

This, in turn, depends on the standard of orchard husbandry that was practiced throughout the season in bringing the crop through to harvest, and your mitigation of adverse weather events such as frost, drought and hail.

Market strategy also plays a key role in your revenue. Carefully identify the market potential of your crop. Hold high quality fruit harvested at optimum maturity for long term storage. Quit later harvested fruit, with dodgy keeping quality, fast - or consider the processing option.

With poor quality lines of low potential pack-out, the process outlet may give the best return, because that way you will not incur high post-harvest handling costs associated with such lines of fruit. This may not please your packer and marketer because they cannot clip the ticket as it passes through their hands. It's better to put your effort into fruit lines with high potential pack-out and revenue, rather than squander limited working capital on low return fruit.

Control What You Can – Manage What You Can't

Cultivar is the key component of orchard profitability, and one that you have full control of. The market generally requires medium-large, high coloured, crisp, juicy fruit.

Figure 3: Choose the right strain. The red sport on the left will give higher Class 1 packout than the standard strain on the right and therefore cost much less to produce.

Grow varieties that suit your orchard site and climate.

Throughout the modern history of pomefruit production there has been movement away from low colour strains to high colour strains, so as improved colour strains are found, the writing is on the wall for the standard one. This is driven mainly by pack-out; however, there are fruit quality implications too. In years with poor fruit colour, the high colour strains are more likely to be harvested at optimum maturity for long term storage.

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New varieties sometimes generate good returns, but not always, as the New Zealand industry has often found to its cost. Keep an eye on new variety introductions, but remember that until they establish themselves in the market place, planting them is high risk.

Figure 4: Poor blocks of orchard such as this are not profitable and because of their poor health status and wide spacing are unlikely to improve much. Pull them out and spend the working capital on blocks with more potential.

Figure 5: This orchard is destined for high production and as it is a red Cripps Pink strain, also high Grade 1 packout.

Address poor performance in orchard blocks. Identify the reason for their low performance. Is it possible to overcome the limitations and bring it up to satisfactory profitable performance? If not, the sooner it's pulled out, the sooner you stop hemorrhaging funds on it.

Analyse your cost structure. Compare it with industry standards. This may reveal opportunity to reduce costs, but be careful, because saving money in critical production areas is often high risk.

Look at your market performance. Can your marketing system be improved?

Labour is a large proportion of your production cost and an area where there is often scope for improved efficiency. A systemised approach to husbandry practices, such as pruning, can improve both efficiency and the quality of the job.

Mitigate risks you cannot control. Install frost protection in frost prone locations. Where water supply is limiting and expensive, improve application efficiency, or reduce the area farmed to match your water supply.

Hail, avian and native mammals; e.g. fruit bats, often cause heavy fruit loss. Netting the orchard can control these problems, as well as stretch your irrigation supply further.

Figure 6: Netting the orchard will fix this problem. Left alone, these parrots can strip an orchard overnight.

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Capex Requirements

Plan capital expenditure carefully. The ongoing orchard business needs a steady investment programme to maintain it at peak profitability. If you hold the viewpoint that orchard blocks have around a 20 year profitable life, there should be a programme to replace 5% of planted area annually. Orchards often get into trouble when the re-planting programme is neglected, and they have to bankroll a massive re-development programme in a hurry.

Risk mitigation can be capital intensive; e.g. hail nets, frost protection, irrigation, but where these risks are limiting business performance, it has to take higher priority than the other expenditure.

Managing Debt Exposure

Orcharding is a very high risk business due to its dependence on the vagaries of weather, and the markets, so it is prudent to have relatively low debt loading.

Orchards do not have to be large to be efficient, or viable. It's more a matter of managing them well and aiming at high performance.

The orchard business has several strategic options to consider:

- Do I grow – funded out of income, or, funded by debt?
- Do I downsize – pull out low performing blocks and do remaining blocks better?
- Do I expand by borrowing more?

Which strategy you follow will depend on your circumstances and general attitude to risk and debt.

The paper "Long term planning for 2012 and beyond" by Ross Wilson in June 2010 delves into these questions in detail.

It also includes several case studies suggesting possible courses of action in different orchard business situations.

Whatever you do, the most important ingredient for success in an orchard business is passion and enthusiasm for the crop, tempered with a strong sense of realism.

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