

Future Orchards™ “Business Development Group” (BDG) Update

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Dear Grower or Industry Personnel

I write this newsletter on my way to Australia about to embark on the northern loop of the Future Orchard™ circuit.

Rather than focus on fruit size outcomes or productivity, I thought I would devote this newsletter to a function within OrchardNet that is currently being under utilised. It is the financial capability, that allows the user to calculate block profitability with relative ease.

As a consultant to the industry it often frustrates me that growers do not really know where their profits or losses are being generated within their business. Most know intimately how their bank balance is moving, many know the value of each variety on a per bin and per kilo basis, but not many can tell me that Block A made a profit of X and Block B a profit or loss of Y.

As fruit-growing becomes more and more professional and demanding, I believe the ability to calculate block profitability has become a must. This type of information has many uses such as: knowing which blocks to remove, being able to identify and rectify weaknesses, and determining changes required to improve profitability, to name just a few.

On the current round of orchard walks, the new theme we introducing was “Future Trees”. This is the theme we will concentrate on over the next twelve months. Future trees is all about ensuring our orchards are planted with a good mix of varieties and rootstocks that will future proof the business going forward.

However, before we can look for the next new variety to plant, we first need to know which parts of the business are not performing. How can you tell which blocks to pull? Purely relying on your gut feel or the return per bin is no longer enough. You can do better and OrchardNet has a tool that can help.

To illustrate how it works, I have set up the Australian Demo with this functionality fully operational. To go to the demo site, go to the OrchardNet login page <http://www.hortwatch.com/orchardnet/> and type in User Name: Augrower, Password: cobber

The property on the demo site is now called AU Model Orchard. The AU Model Orchard has now been published almost annually since 2008. The Model is designed to represent an average Australian pomefruit orchard. It is a 40 hectare property with a typical mix of varieties; with production, packout, returns, and costs of production, at industry average

levels. If you have not already requested a copy of the full report, we recommend you do so by contacting Angus Crawford at APAL.

The OBA report shows the income from each variety and the overall business costs and profit and loss, but it does not calculate the profit of each variety. This is typical of most orchard businesses. OrchardNet has the ability to carry out this functionality.

In the Demo site, the Model Orchard has been set up with each variety set up as a block. Each variety block has the identical information as the Orchard Business Analysis (OBA) report e.g. planted area, production, packouts and returns. All we need to do now is enter costs of production (COP). OrchardNet tries to keep COP as simple as possible as we know it's almost impossible to track the real costs of each and every orchard block without creating an administration nightmare.

[Enter on orchard costs](#)

Click into the “Cost Details” table of your block. There are only five fields to enter. The first three are the big labour costs: pruning cost per tree, thinning cost per tree, and harvest cost per kilo. Other expenses are all other on-orchard costs entered as \$ per hectare. This figure can be taken from your most appropriate set of annual accounts and should include all overheads, including interest and depreciation. The final figure to enter is the cost of management, again entered as \$ per hectare.

[Enter Post harvest costs](#)

You can either enter these at each block or if they are the same unit cost for many varieties, you can set them up as a company default. To set up a company default set of costs, click the pencil on your company page and click into “Company Post-Harvest Defaults”. OrchardNet will use the post harvest block cost if you have entered one, or if not, it will use the company post harvest default.

With this data entered you can now run various profit reports which will calculate the profit or loss of each of your blocks.

[Reports](#)

The first report I would like to illustrate is the “Block profit summary”. To access this report on the demo site, you first need to be at the company page (not in an individual block!).

Now that you are in the company page, all reports can be accessed by clicking the graph

icon . After you've clicked that, the second report on the list is called the “Block Profit SUMMARY”. When you click that, the report as shown below will become visible.

Table 1 Block Profit summary

Demo Company AU All Properties		Block Profit Summary										
Blockname	2016			2015			2014			3 Yr Avg (per ha)	6 Yr Avg (per ha)	
	Area	\$/ha	Total	Area	\$/ha	Total	Area	\$/ha	Total			
AU Model Orchard	40.0	7,639	305,571	40.0	4,395	175,785	40.0	8,626	345,045	6,887	6,804	
Fuji OBA	3.2	-4,725	-15,120	3.2	371	1,188	3.6	-7,832	-28,194	-4,062	-4,062	
Granny OBA	5.2	16,733	87,009	5.2	16,661	86,639	5.2	22,957	119,377	18,784	15,204	
Jazz OBA	2.0	26,474	52,948	2.0	12,235	24,469	1.6	19,250	30,801	19,320	19,320	
Packhams OBA	3.6	-6,180	-22,247	3.6	-9,426	-33,934	3.2	-1,856	-5,940	-5,821	-5,821	
Pink Lady OBA	6.8	15,779	107,296	6.8	14,954	101,689	6.8	25,073	170,497	18,602	13,424	
Rosy Glow OBA	4.0	18,947	75,786	4.0	7,387	29,547	4.0	15,744	62,976	14,026	13,439	
Red Delicious OBA	2.0	-6,942	-13,883	2.0	-1,810	-3,620	2.4	-4,237	-10,168	-4,329	-8,629	
R Gala OBA	8.8	8,649	76,108	8.8	1,942	17,088	8.8	5,155	45,363	5,248	6,737	
Sundowner OBA	1.6	-7,269	-11,630	1.6	-1,505	-2,408	1.6	7,647	12,235	-375	-375	
WBC OBA	2.8	-10,963	-30,697	2.8	-16,026	-44,873	2.8	-18,536	-51,901	-15,175	-15,175	
Company Totals	40.0	7,639	305,571	40.0	4,395	175,785	40.0	8,626	345,045	6,887	6,804	

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This report is one of my favorites. It is calculating the profitability of each block of trees on a per hectare basis and for the company as a whole. How powerful is it to know that although this AU Model orchard achieved an overall profit of \$345,000 in 2014, well over half of that profit came from only two varieties, Granny Smith and Pink Lady? Not only does it show where the big profits are coming from, but it also identifies the loss makers, WBC for example made a loss in 2014 of \$51,000 and Fuji a loss of \$28,000.

A good cross check to make sure there are no mistakes with data entry is total company profit at the bottom of the report, should equal what your financial records show for the same time period.

As we all know, pomefruit growing is a test match, not a one dayer and certainly not a quick fire 20/20 (cricket analogy). The performance of a varietal block can vary from one season to another dramatically. The block may be biennial, the seasonal climate can make a huge difference, the market swings. Therefore, when we analyse block performance we must look at it over a number of years. To be able to do this on the demo site, we have gone back and included the OBA block data for the 4-year period 2012-2016 inclusive.

With multiple years' data in, we are now able to see whether the block is consistently performing or not. The "Block Profit SUMMARY" report also calculates both the 3 year and 6 year average which is a useful benchmark to judge longer term performance.

Block profit report

The next report I would like to illustrate is the Block Profit report. The example to run is the Fuji block. To run this report for just the Fuji block, first you need to click into the Fuji block. Once you are in, then look for the graph icon, click that and then select the Block Profit report which is the first report on the list. If you have followed my narration, you should be looking at the report the same as shown in Table 2 below.

Table 2 Fuji OBA profit

Fuji OBA												
Block Description	2016 Actual				2015 Actual				2014 Actual			
	Trees	Age	Area	Trees/ha	Trees	Age	Area	Trees/ha	Trees	Age	Area	Trees/ha
	3200	26 yrs	3,200	1,000	3200	25 yrs	3,200	1,000	3600	24 yrs	3,600	1,000
Yield	Kg	Gross	Class 1	Tonnes	Kg	Gross	Class 1	Tonnes	Kg	Gross	Class 1	Tonnes
	/Tree	Kg/ha	Kg/ha	/ha	/Tree	Kg/ha	Kg/ha	/ha	/Tree	Kg/ha	Kg/ha	/ha
Gross yield	31.3	31,300	20,345	31.3	37.3	37,300	23,499	37.3	21.7	21,700	13,454	21.7
Submitted to Packhouse	100%				100%				100%			
Recovery and Returns	Class 1	Class 2	Process	Av gms	Class 1	Class 2	Process	Av gms	Class 1	Class 2	Process	Av gms
Packouts	65%	15%	20%	190	63%	15%	22%	190	62%	20%	18%	180
Returns	\$2.10	\$0.90	\$0.15		\$2.17	\$0.93	\$0.15		\$2.54	\$0.92	\$0.11	
Direct Financial Result	\$/Tree	\$/Gross	\$/CI	\$/Ha	\$/Tree	\$/Gross	\$/CI	\$/Ha	\$/Tree	\$/Gross	\$/CI	\$/Ha
INCOME	47.89	1.53	2.35	47,889	57.43	1.54	2.44	57,427	38.60	1.78	2.87	38,595
Packing	17.53	0.56	0.86	17,528	20.52	0.55	0.87	20,515	12.59	0.58	0.94	12,586
Packaging	0.00	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Coolstorage	0.00	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Freight	0.63	0.02	0.03	626	0.75	0.02	0.03	746	0.43	0.02	0.03	434
Total post harvest costs	18.15	0.58	0.89	18,154	21.26	0.57	0.90	21,261	13.02	0.60	0.97	13,020
ORCHARD GATE INCOME	29.74	0.95	1.46	29,735	36.17	0.97	1.54	36,166	25.58	1.18	1.90	25,575
Prune	4.00	0.13	0.20	4,000	4.10	0.11	0.17	4,100	4.00	0.18	0.30	4,000
Thin	3.00	0.10	0.15	3,000	3.50	0.09	0.15	3,500	4.00	0.18	0.30	4,000
Harvest	4.70	0.15	0.23	4,695	5.22	0.14	0.22	5,222	3.04	0.14	0.23	3,038
Other orchard exp	20.20	0.65	0.99	20,199	20.40	0.55	0.87	20,396	19.13	0.88	1.42	19,133
Management fee	2.57	0.08	0.13	2,566	2.58	0.07	0.11	2,577	3.24	0.15	0.24	3,236
Total orchard expenses	34.46	1.10	1.69	34,460	35.80	0.96	1.52	35,795	33.41	1.54	2.48	33,407
TOTAL EXPENDITURE	52.61	1.68	2.59	52,614	57.06	1.53	2.43	57,056	46.43	2.14	3.45	46,427
PROFIT	-4.73	-0.15	-0.23	-4,725	0.37	0.01	0.02	371	-7.83	-0.36	-0.58	-7,832

No notes available.

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This report gives the full details for this block of trees over the past three years (including a forecast if you selected add forecast). Craig and I used this example in our recent orchard walk talk. Fuji has been a poor performer for the Model Orchard with losses being made most years. The losses are due to poor production and packout, not due to poor price as the price of Fuji has been very good.

Some simple “what if” calculations are possible which is what we have done within the 2017 forecast. Here we have simply increased production to 50 tonne per hectare and class 1 packout from 65 to 75%. If these two changes were physically possible, the Fuji block profitability could be turned around. Rather than the chainsaw coming out, there may be a better way.

Have a go

Our hope is that this newsletter and the working real life example of the demo site, might encourage some of the BDG members to give the financial functionality of OrchardNet a go. It will take a bit of effort to become comfortable with how it works but if you persevere, the outcomes will be highly useful.

If you are having trouble, please give our OrchardNet developer a call, Adrian Stone, email adrian.stone@agfirst.co.nz or phone +64 6 8727080.

ⁱ OrchardNet is structured to report at the level you're currently in. If you are in a block, it will report only on that block, if you are at a property level, it will report on all blocks in that property, and if you are at the company level, it will report on all blocks within the company.