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Future Orchards

Business Development Group Update

Issue 15

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IN THIS ISSUE

Welcome to the latest installment of the Business Development Group newsletter and the first that I (Nic Finger) am writing.

For those who don't know me I joined the AgFirst team in July of 2017. I'm originally from the Yarra Valley in Southern Victoria with the last 7 years being spent between the University of Melbourne and the CSIRO.

Here's hoping I can continue to highlight the potential benefits that OrchardNet can provide to your business as well as an appreciation of the sort of data you need to be collecting to ensure you can effectively monitor your business' performance.

Viewing Focus Orchards

As part of the Future Orchards you can view "Focus Orchard Network" grower data on OrchardNet. Observing the results at these blocks can provide a good insight into some of the issues discussed at Future Orchards walks and gain an insight of the tools and outputs that OrchardNet can provide.

To login and look at Focus Orchards :

1. Go to www.orchardnet.co.nz
2. Username: focus
3. Password: focus

After you've logged in you should be able to click through each of the focus orchard companies (visible on the left pane) and look at their individual blocks.

What can I do with it?

A great place to start with the Focus Orchard Blocks is the "Block Reports" tool.

Once you have chosen a block select:



A new page will then appear with several reporting options.

I'd suggest trying out the "block analysis" report (second on the list).

Click show report and the block you're looking at will be ranked against all other Australian growers with data for that variety on OrchardNet (based on Orchard Business Analysis returns and costs data).

Interesting to see where someone else's blocks sit...if you'd like to see where yours rank it might be time to get some of your data into OrchardNet.

If you need some help don't be afraid to get in contact with myself or any other member of the team (see last page of the newsletter).

The rest of the newsletter looks at the abovementioned block profit benchmarking tool and fruit size monitoring portions of OrchardNet.



Block profit analysis: Where do you rank?



Fruit Size update for season 2018

Why fruit size monitoring is useful (and how to participate)

Block Profit Analysis

Block Analysis



2017 Gala

ranked by: Profit per ha

Comparison: **Australia Type - Royal Gala** (162 Blocks 581 ha)

Actual industry costs and returns are not currently available for this year, so estimated values have been used

The block analysis tool provides a simple way to benchmark your business against other Australian growers.

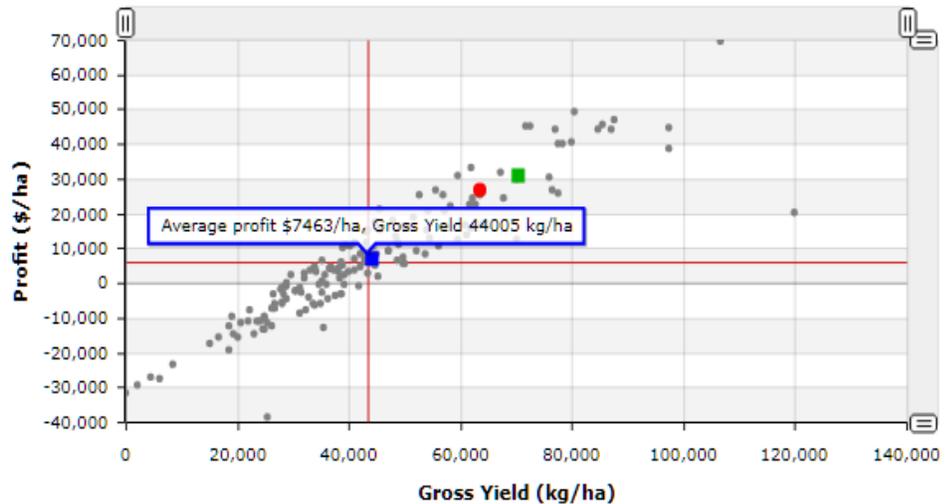
Using the results of the Orchard Business Analysis (where many growers anonymously provide their costs and returns data for their business) a series of average national figures are generated for orchard costs and returns for each variety.

Once you input your data into OrchardNet you can see where your block ranks based on those average figures and get an anonymous look at what other growers are doing.

Comparative benchmarking underpins several functions within OrchardNet; as you can see in the 2017 Gala figures to the right there is a huge difference between the top 10 and the grower highlighted in red.

Everyone would like to see their blocks at the top end; find out where you sit and then look to identify where you can improve to be performing alongside the best.

Can you lift your production and packout to move up the ladder? Is your fruit size undesirable? (too small/large)



Rank	Block Name	Gross Kg per ha	Class 1 Kg per ha	Packout %	Fruit Wt (g)	Hg%	Income	Profit	
		Upper Quartile	70,071	53,262	77%	168	32%	\$116,369	\$31,193
		Average All	44,005	33,442	77%	166	33%	\$72,737	\$7,463
1		106,615	83,162	78%	160	80%	\$182,965	\$69,317	
2		80,471	64,376	80%	165	50%	\$143,242	\$49,234	
3		87,692	70,154	80%	169	0%	\$146,579	\$46,981	
4		85,529	68,423	80%	170	0%	\$143,360	\$45,436	
5		71,628	64,465	90%	160	0%	\$134,257	\$45,087	
6		72,480	65,232	90%	163	0%	\$134,887	\$45,034	
7		97,333	63,267	65%		50%	\$147,794	\$44,822	
8		77,037	61,630	80%	160	80%	\$135,584	\$44,234	
9		84,571	67,657	80%	169	0%	\$141,362	\$44,180	
10		87,000	65,251	75%	155	50%	\$141,928	\$44,083	
11		80,000	64,000	80%	165	60%	\$134,004	\$40,360	
12		77,538	58,154	75%	165	50%	\$130,777	\$40,124	
13		78,261	60,261	77%	194	50%	\$131,652	\$40,011	
14		97,385	58,431	60%	170	80%	\$140,440	\$38,794	
15		61,846	52,569	85%	170	0%	\$113,776	\$33,317	
16		67,333	50,500	75%	160	80%	\$114,655	\$31,758	
17		59,564	50,629	85%	170	0%	\$109,577	\$30,917	
18		75,920	56,940	75%	169	50%	\$119,824	\$30,401	
19		70,000	56,000	80%	155	0%	\$115,739	\$29,835	
20		76,560	55,616	73%	160	0%	\$116,322	\$26,917	
21		55,556	47,222	85%	165	0%	\$102,139	\$26,637	
22		63,623	48,989	77%	194	0%	\$107,027	\$26,593	
23		77,500	54,250	70%	166	50%	\$115,580	\$26,041	
24		56,901	47,700	84%	168	0%	\$101,776	\$25,400	
25		63,529	50,824	80%	169	0%	\$106,190	\$25,294	
26		52,705	46,642	89%	159	80%	\$98,901	\$25,129	
27		67,727	47,409	70%	160	50%	\$106,712	\$24,464	
28		62,259	49,807	80%	170	50%	\$104,355	\$24,443	

The results of the "block analysis" feature in OrchardNet. All growers with data in the system are ranked (anonymously) and your own data is identified in red. Each grey dot represents a single block of Gala (in this case). The blue square represents the "average" block and the green square represents the upper quartile (top 25%) of blocks.

THE MINIMUM DATA YOU NEED IN ORCHARDNET TO GENERATE THIS REPORT

- Block details (planted area in hectares, variety)
- Tonnes picked/sent to packhouse
- Class 1 packout %
- Fruit weight (grams)

Fruit Size 2018: Update

The below analysis has been derived from fruit size measurements taken by growers and uploaded to the OrchardNet database.

Participation rates in fruit size monitoring decreased slightly from last season. On the next page (pg. 4) I give an overview on why fruit size monitoring can be a valuable part of your orchard management and a couple of options to make it a bit quicker.

Gala

Looking at the size profile for Gala within OrchardNet fruit diameters are lower relative to previous years. Most of this reduction is related to the number of growers who have uploaded their data in the tail-end of the 2018 season. For those of you participating this year you would notice the reductions in the national/regional averages (depending on your location) towards the end of the season. This is likely attributable to some growers choosing to stop uploading their data later in the season.

2015	166 grams
2016	167 grams
2017	166 grams
2018 predicted	164 grams

Pink Lady

Pink Lady fruit size is tracking well in 2018, closely mimicking the 2016 fruit size curve (see image to right). The big 'kick' at ~180 days after full bloom (DAFB) is due to an incomplete dataset. This is expected to drop once growers in alter regions upload their data.

2015	171 grams
2016	174 grams
2017	171 grams
2018 predicted	173 grams

Fuji

Generally, Fuji fruit size has remained consistent in recent years across most growing regions. The 2018 season is likely to have a slightly increased fruit size. Grower measurements have Fuji diameter at 3 mm more compared to the same growth stage last year *(based on days after full bloom)

2015	192 grams
2016	185 grams
2017	185 grams
2018 predicted	188 grams

Granny Smith

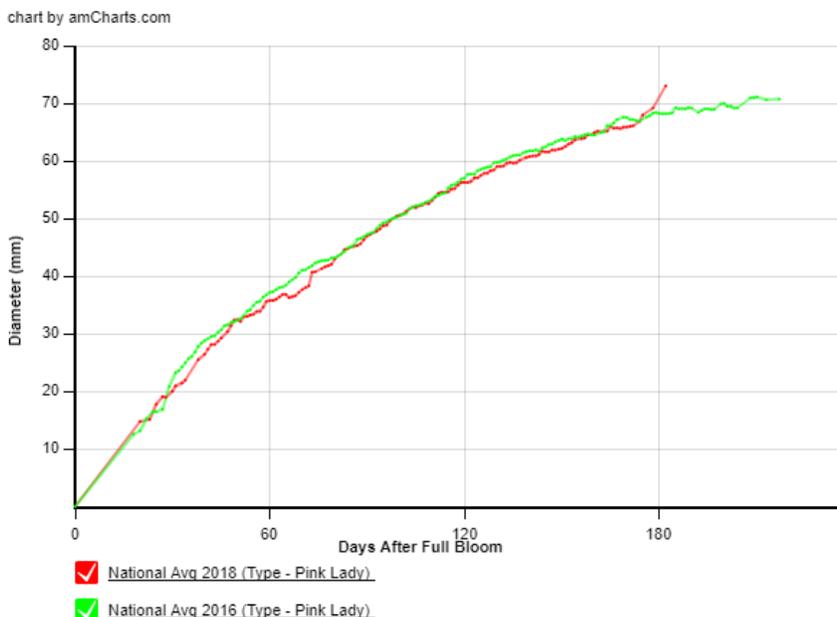
Being the biennial off-year for much of the Goulburn Valley, the expectation is for larger fruit relative to last year. Average fruit size data within OrchardNet confirms this trend but fruit size remains largely consistent for all varieties.

2015	171 grams
2016	174 grams
2017	172 grams
2018 predicted	173 grams

Fruit Size Report AU PL by DAFB



Fruit Size - Diameter (mm)



The results of Pink Lady monitoring to date (red line) compared to 2016 (green). The 'kick' at 180 DAFB is related to the different DAFB (when that is relative to a date varies by region) and will flatten out once more data is entered.

Fruit Size Monitoring: Why and how?

Season 2018: How'd we go?

Participation in fruit size monitoring program reduced this season relative to 2017. Participation in fruit size monitoring can be a valuable part of your business.

Variety	2017	2018
Gala	82	64
Pinks	87	65
Fuji	28	16
Granny Smith	28	11
Jazz	20	18
Reds	7	3
Kanzi	4	7
Pears	9	5
Others	52	22
TOTAL	317	211

Why do it?

Monitoring fruit size, particularly in relation to growth rates, can provide key metrics to ensure that you can maximise your fruit's potential. Some additional thinning, irrigation or fertigation can do wonders for your fruit size if applied in a timely manner.

Useful data is crucial to making well-informed decisions.

What do I need to do?

You need to measure the diameter of at least 20 fruit per block that are individually marked (flagging tape/bread ties work well). Don't just pick the biggest/best fruit; you want to get a representative sample (e.g. a 'normal' mix for the block). If the fruit size is variable within your block a higher number of samples may be better.

If you're not too sure how to get started get in contact with your local FLA or one of the AgFirst team.

Get in the habit; you might be surprised by its usefulness.

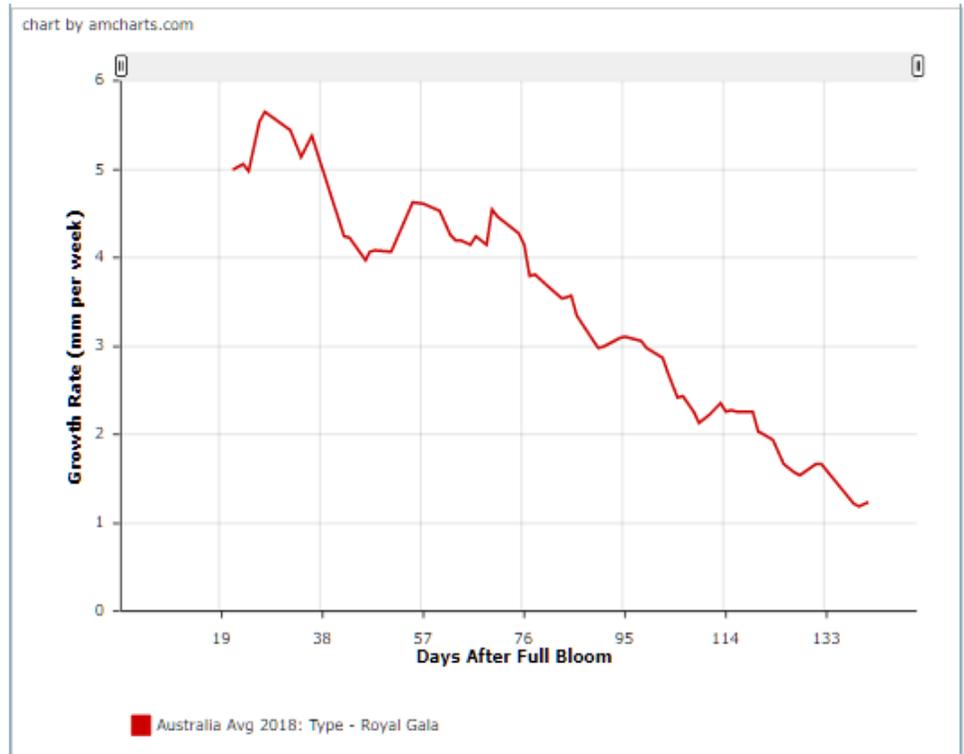
When do I start?

I'm a firm believer in starting the process early in the season. Both to ensure that your fruitlet growth rate is 'normal' and to get you and your staff in the habit of collecting the data early in the season (e.g. every Friday

Fruit Size Report Gala DAFB



Fruit Growth Rate - mm per Week



Monitoring fruit size growth rates can be an effective way to schedule interventions to address stalled fruit growth. A sudden drop in growth rate may signal the need for irrigation, fertigation or additional thinning. Monitoring your fruit growth rates can help you to spot the issue before it's a major problem.

morning). I'd personally start 4-6 weeks after full bloom.

Is there an easier way to collect the data than using pen and paper?

At AgFirst we use the "WEL Bluetooth caliper" to automatically log our results as we take the data. On my family farm the "Guss Today electronic fruit size measurer + datalogger" has also proven to be an effective timesaver.

There will be other products on the market; ask around and decide if a similar tool could save you time when monitoring fruit size next year.



Interested in trying OrchardNet within your business?

OrchardNet takes some perseverance and may require a different way of thinking to what you're used to. Look at the focus blocks for an understanding of the sorts of data you need to input to get the outputs you would like.

If you're not too sure how-to login to OrchardNet, enter data, add blocks or you just need a few extra pointers don't be afraid to get in contact with your local Front-Line Advisor (FLA), the OrchardNet Administrator (adrian.stone@agfirst.co.nz) or a member of the AgFirst team.

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