

Future Orchards Business Development Group (BDG) Update

December 2017

Dear Grower or Industry personnel

Welcome to the Dec 2017 BDG update.

Full Bloom Dates

Although FB dates vary considerably between each growing region, the national average gives some idea about timing of each season. In our experience although growing season heat units also play a big part, the FB date is the building block with regard to seasonal timing. Based on the averages recorded in Table 1 below, this 2018 season started 6-10 days ahead of last year and is similar to the 2015 year with the exception of Granny Smith.

Table 1 Australia National Average Pomefruit full bloom dates

	2015	2016	2017	2018
RG AU average	11/10/2014	18/10/2015	16/10/2016	7/10/2017
PL AU average	6/10/2014	4/10/2015	15/10/2016	5/10/2017
Fuji AU average	11/10/2014	9/10/2015	19/10/2016	13/10/2017
Granny AU average	10/10/2014	12/10/2015	13/10/2016	2/10/2017

Source: OrchardNet

The one piece of data that many growers often forget to enter, is their **Full Bloom date**. To make sure you get full functionality out of the Orchardnet system, this date is essential. **Please don't forget to make sure all blocks you fruit size have an accurate Full Bloom date entered.**

Fruit Sizing

Last year the number of blocks using the fruit sizing component of Orchardnet reached 322 which was down on the previous year of 458. We want to try and build it back up to 500 blocks this year, so please get on board and use this really useful tool. Its really simple once you've got yourself organised and can help management in many ways.eg:

- Is my growth rate satisfactory? If not, why not? Adjustments can include irrigation, nutrition, crop load and Retain
- Its not too late to reduce crop load if fruit numbers and fruit size are not up to target. A quick 20-100 fruit measure can tell you a lot.
- Retain use. Help identify the blocks that would benefit the most from Retain.

- Being market ready. Is your crop predicted to be large, medium or small. Make sure you have your market aligned with your crop.

For a refresher on how to use the fruit sizing tool in Orchardnet, read <http://apal.org.au/wp-content/uploads/Fruit-Size-Monitoring-and-Leader-Extension-Monitoring.pdf>.

And read pages 76-81 of the Orchardnet online manual. Once you're logged into Orchardnet, look for the "User manual" icon on the left.

For those growers monitoring large numbers of blocks, we recommend you learn how to use the "Fruit Size Centre". Once set up this makes viewing reports on multiple blocks easy and painless. We have updated the Online manual so you can follow the simple steps, refer to pages 82-93 of the Orchardnet user manual.

Australian Fruit size Update 2017~18

Table 2 below shows the average fruit size in grams by variety over the past three years. The striking feature is the consistency of average fruit size between each of the three years. The only exception being Fuji which was larger than average in 2015.

Table 2 AU fruit size average (gms)

	2015	2016	2017
AU RG average	166	167	168
AU PL average	176	174	173
AU Fuji average	192	186	186
AU Granny Smith average	171	174	175

Source: OrchardNet

In the following two figures (Figures 1 & 2) we show the YTD national averages of the 2 biggest volume varieties, Gala and Pink Lady. Data for both varieties shows fruit size this year is very similar to 2016 & 2017. We would therefore predict at this early stage that Gala is on target to average 167 gms and Pinks 174 gms based on Table 2 above.

Figure 1 AU Gala fruit Size DAFB

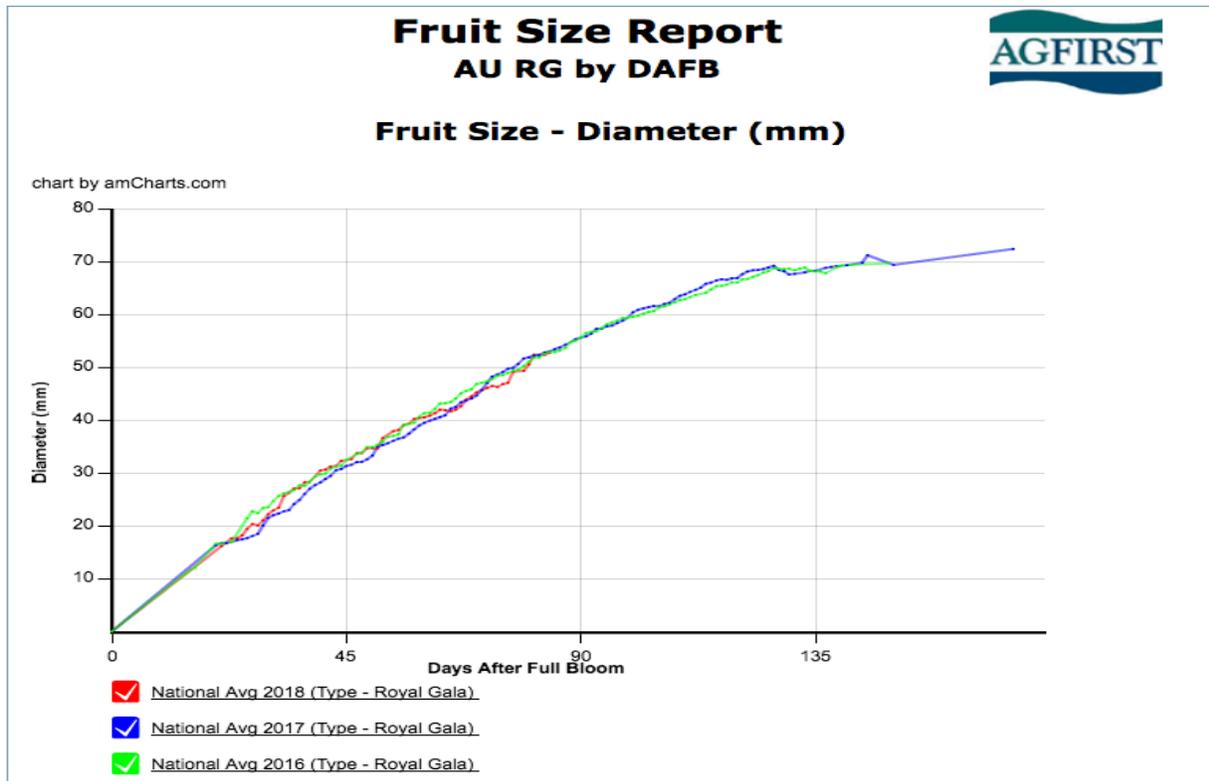
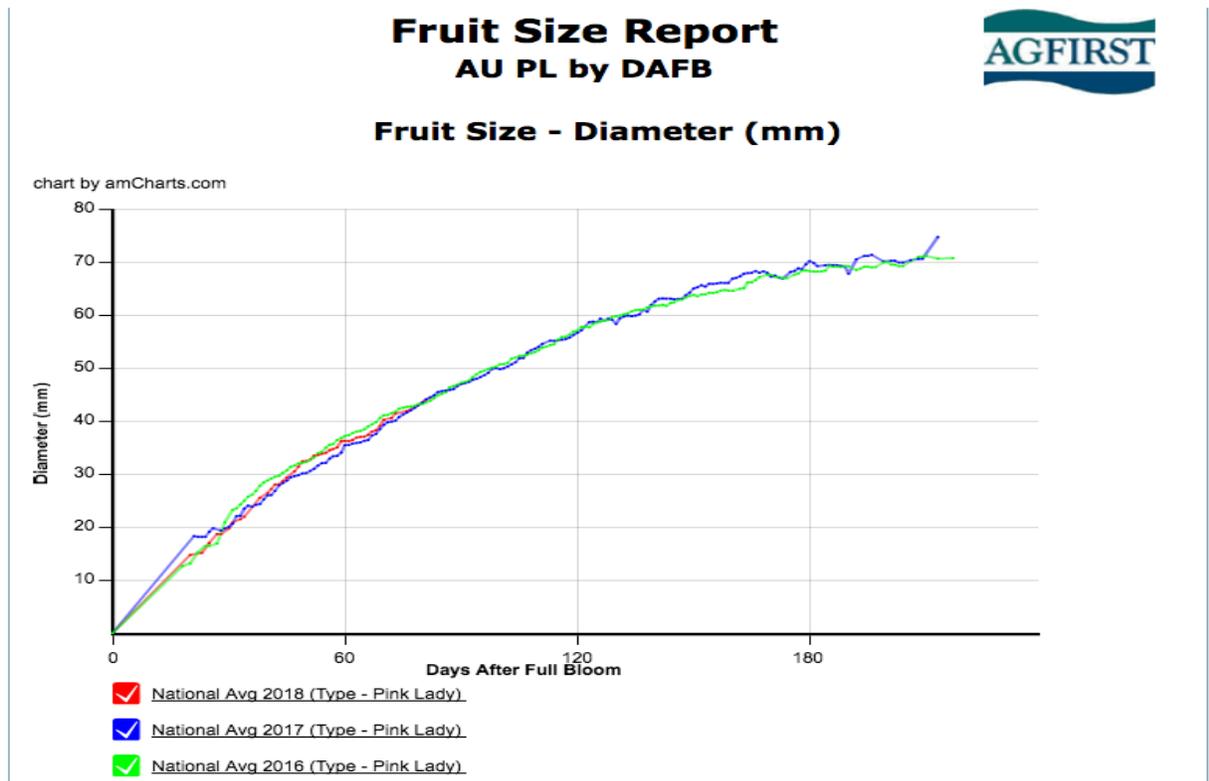


Figure 2 AU Pink Lady fruit size DAFB



How do your blocks compare? Rather than try and interpret these graphs why don't you get on board? We'd love to see as many growers as possible using the service.

Water Centre

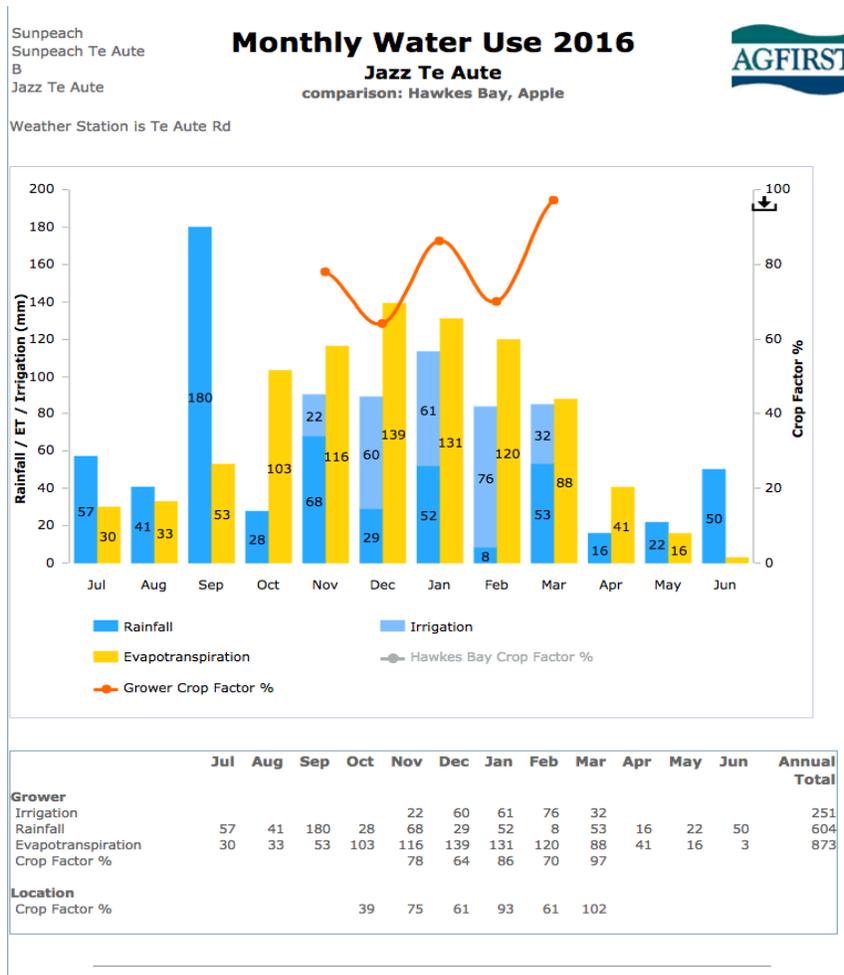
Now is also the time to utilise the water centre in Orchardnet. To start, make sure that the correct weather station is assigned to each property. Once this is done, try entering your irrigation details to be able to run the various reports that track your water use against all others in the database. To enter irrigation into Orchardnet you need to be able to calculate what your irrigation system applies as effective rainfall ie mm.

Effective rainfall per hr = sprinkler or emitter output (l/hr) / sprinkler spacing (m²). Eg sprinkler applying 35 l/hr spaced at 5m * 2.0 m. Application rate = 35/(5*2)= 3.5 mm per hr. Calculate the hours the irrigation ran in the month and enter the total mm of irrigation into OrchardNet. Eg system ran for 6 hrs per week * 4 weeks = 6*4*3.5= 84mm irrigation.

A fully mature apple or pear canopy using minisprinklers should need 70- 80% of ET if you only irrigate the trees and not the grass sward. Figure 3 below shows how one of the water reports can work for you if you enter your irrigation. Its one of my own blocks and although our crop factor varied a bit by month the average over the dry summer months was (75+61+93+61+102) / 5 = 78%. "Right on target".

We encourage many more growers to use this tool. Just the discipline of calculating effective irrigation and monitoring ET will empower your irrigation decision making. Don't just rely on what your soil moisture readings tell you, understand this water budgeting technique to ensure your trees are getting what they need. "Remember over irrigating is just as detrimental as underirrigating".

Figure 3 Monthly Water Use ~ Sunpeach Jazz 2015~16



Growing young trees

In the last BDG newsletter, I listed the key points that Tom Auvil (USA) raised to maximise young tree performance. The Leader Extension monitoring system in Orchardnet is a great way to measure how your young trees are performing.

The article <http://apal.org.au/wp-content/uploads/Fruit-Size-Monitoring-and-Leader-Extension-Monitoring.pdf> also gives guidelines on how to start leader extension monitoring. Again its simple, you just need the discipline to set it up and instruct a staff member how to do it once every week or at an interval that suits you.



Figure 4 Ross Wilson measuring twin stem Envy with 630mm leader extension by 20/12/2017 (green tip 1/10/2017)

You want to log in to Orchardnet and don't know where to start, contact your local FLA or the AgFirst Orchardnet specialist.

STATE	CONSULTANT	EMAIL	PHONE
OrchardNet specialist	Adrian Stone	adrian.stone@agfirst.co.nz	+64 6 872 7074
AgFirst NZ	Ross Wilson	ross.wilson@agfirst.co.nz	+64 27 449 0775
AgFirst NZ	Craig Hornblow	craig.hornblow@agfirst.co.nz	+64 27 436 8441
AgFirst NZ	Steve Spark	sspark@agfirst.co.nz	+64 27 437 2344
AgFirst NZ	Jonathan Brookes	jonathan.brookes@agfirst.co.nz	+64 27 208 8750
FLA North Victoria	Julie Goodwill	ido@fgv.com.au	+61 400 795 539
FLA South Victoria	Jabbarh Khan	jabbarhs@yahoo.com.au	+61 417 044 549
FLA Batlow	Kevin Dodds	kevin.dodds@dpi.nsw.gov.au	+61 427 918 315
FLA Orange	Adam Coleman	adam.coleman@dpi.nsw.gov.au	+61 429 088 395
FLA Queensland	Stephen Tancred	stephen@orchardservices.com.au	+61 407 762 888
FLA Western Australia	Susie Murphy-White	susiemurphywhite@gmail.com	+61 429 413 420
FLA South Australia	Paul James	paul@lenswoodcoop.com.au	+61 419 826 956
FLA Tasmania	Sophie Folder	sophiefolder@internode.on.net	+61 439 247 172

The APAL, AgFirst, SPW and FLA Future Orchards team would like to wish all growers a very Merry Xmas and a bountiful 2018.

Regards

Ross Wilson, AGFIRST