Dear Grower or Industry personnel

Welcome to the Dec 2016 BDG update. You are receiving this newsletter as a contributor to the APAL Future Orchards program.

In all of these projects, we have captured the majority of the orchard data within the online database called OrchardNet (to access go to http://www.hortwatch.com/orchardnet ). If you have received this newsletter you should already have an OrchardNet subscription but if not or you cant remember, please get in touch with us to set it up (adrian.stone@agfirst.co.nz). Remember the cost of the annual subscription is funded by the Future Orchards project so there is no cost to you other than your own time.

To make it clear, all growers that use OrchardNet, are referred to as the “Business Development Group”.

We like to think that you’re using OrchardNet to make your orchard businesses better.

Fruit Sizing

Last year the number of blocks using the fruit sizing component of orchardnet alone reached 440 which meant that district and national averages were very robust and made for good comparisons. This year the keen growers are already on the case with currently 236 blocks being actively fruit sized. We want to try and reach 500 blocks this year so please get on board and use the service. If you havent used the service before, jump onto the APAL website to view the many resources that give guidance on how to get involved eg http://apal.org.au/wp-content/uploads/Fruit-Size-Monitoring-and-Leader-Extension-Monitoring.pdf

The one piece of data that many growers seem to forget to enter is the Full Bloom date. To make sure you get full functionality out of the system, this date is essential. Because seasons and regions differ in their Full Bloom dates, it is critical when making comparisons to use the Days After Full bloom (DAFB) options. Our target lines also need you to enter a FB date for them to work. Full Bloom date is when the highest percentage of flowers were open, ie the date the block was the most showy. Please don’t forget to make sure all blocks you fruit size have an accurate Full Bloom date entered.

For those growers monitoring large numbers of blocks, you are recommended to use the “Fruit Size Centre”. Once set up this makes viewing reports on multiple blocks easy and painless. Clicking on the fruit size icon (red apple) from your home page takes you to the Fruit Size Centre. This page allows you to create reports with the same sort of options as the individual block pages, but here you can save the report with its custom options intact for future viewing. You can also show more than one block on a single report, and create average fruit size lines of a group of blocks. Custom stacks of reports can also be
saved, so you can access all your required reports with your preferred options at a single click of the mouse. If you have trouble setting it up give us a yell.

**Australian Fruit size Update 2016~17**

In the following two figures (Figure 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 down on 2015 & 2016 and similar to 2014. Take care how you interpret these graphs. The current year line can kick at its end depending on which block was last measured. Look at the trend line where you can see lots of dots which are readings.

*Figure 1 AU Gala fruit Size DAFB*

![Fruit Size Report AU RG by DAFB](amCharts.com)

- National Avg 2017 (Type - Royal Gala)
- National Avg 2016 (Type - Royal Gala)
- National Avg 2015 (Type - Royal Gala)
- National Avg 2014 (Type - Royal Gala)
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.

When you do monitor your fruit size and compare it against national and regional trends, if you see a problem with growth rate, you can do something about it. Possibilities from here on in include:

- If you haven’t thinned yet, do it ASAP and maybe lower your fruit number targets as well.
- If you have already thinned but size is not looking good, consider a second thin in January.
- Look at water and fertiliser inputs. Are they enough to drive performance?
- Consider the use of Retain to extend your growing season.
- Get your marketing team ready for smaller fruit size.
- Make the call whether you will go for short, medium or long-term storage and ensure you have the colour and maturity parameters to fit.
Water Centre

As mentioned in one of our recent OrchardNet newsletters the Water Centre in OrchardNet has recently been upgraded with several key horticultural weather stations close to pomefruit growing regions being available to download ET and rainfall data automatically.

We encourage users to 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 age getting what they need. Remember over irrigating is just as bad as underirrigating.
FOCUS FOCUS

You may have read in the latest APAL magazine, that we have made all the Focus orchard data available online. To access all this data log out of your own Orchardnet login and then enter the system with:

Username : Focus
Password : focus

For details on how to use the site please refer the to magazine article http://apal.org.au/focus-orchards-block-data-mouse-clicks-away/

You want to follow your favourite Focus Orchard, just log in and let your mouse do the walking.

Get on board, give it a go.

AgFirst would like to take this chance to wish you all a very Merry Christmas and a bountiful 2017 harvest.

Regards

Ross Wilson, AGFIRST