

Future Orchards “Business Development Group” Newsletter

Prepared August 2015 by Ross Wilson AgFirst

OrchardNet Update

The winter months are a great time to sit down in front of your computer, enter your historical data, and start planning your 2016 crop.

If you don't have a plan, “you'll do what you've always done” and probably get the same result or worse. Use OrchardNet to track the history of your blocks and to benchmark with other blocks of the same variety and age. Set a goal for 2016 and then work out what inputs will be required to achieve that goal.

The OrchardNet database continues to grow with currently; 158 companies, 291 properties and 1,498 blocks registered. The production and fruit size databases are now large, robust sets of data that means you can have confidence with the various benchmark comparisons.

Production

One of OrchardNet's key functions is to be able to track a blocks productive performance and set targets for the year ahead. We encourage growers to use OrchardNet to plan forward as much as to look back. If you haven't done so already, we would thoroughly recommend that you enter the last two years production details for each block. The system is setup to allow you to enter the data in multiple forms: either kilos, bins, or tonnes per ha.

Once you have done this, you can benchmark your performance against all other blocks in the database. As mentioned, the databases are strong. As an example, currently we have approximately 200 blocks of Gala and 200 blocks of Pink Lady in the 2013 and 2014 databases. Once your data is in, use the “Block Analysis” and both the yearly and tree age “Production” reports to see how your blocks compare to the national and regional averages and upper quartiles.

Two very interesting reports out of OrchardNet over the page show how the gross production of Pink Lady and strains is tracking. Figure 1 shows production by year. Note that average production has lifted from 30t/ha in 2006 to 55 t/ha in 2015. This graph is average production across all tree ages. This graph also shows that average productivity for Pink Lady is lifting by about 8% per year. We would attribute that to trees getting older and growers achieving higher and higher yields.

Figure 2 shows the yield profile for the Pink Lady group by tree age. Mature yield is averaging 58t/ha with the average block taking 10 years to reach full production. Compare that to upper quartile blocks that are achieving 90t/ha as a mature yield. That means the Upper Quartile blocks are achieving 55% more productivity per ha than the average, a massive difference.

Where do your blocks sit on these curves? Enter your data and have a look. If you're upper quartile, just keep up the good work. If you're below upper quartile, ask yourself why that is, then come up with a continual improvement strategy. It could make a huge difference to your business.

Figure 1 Pink Lady Gross Production by Year

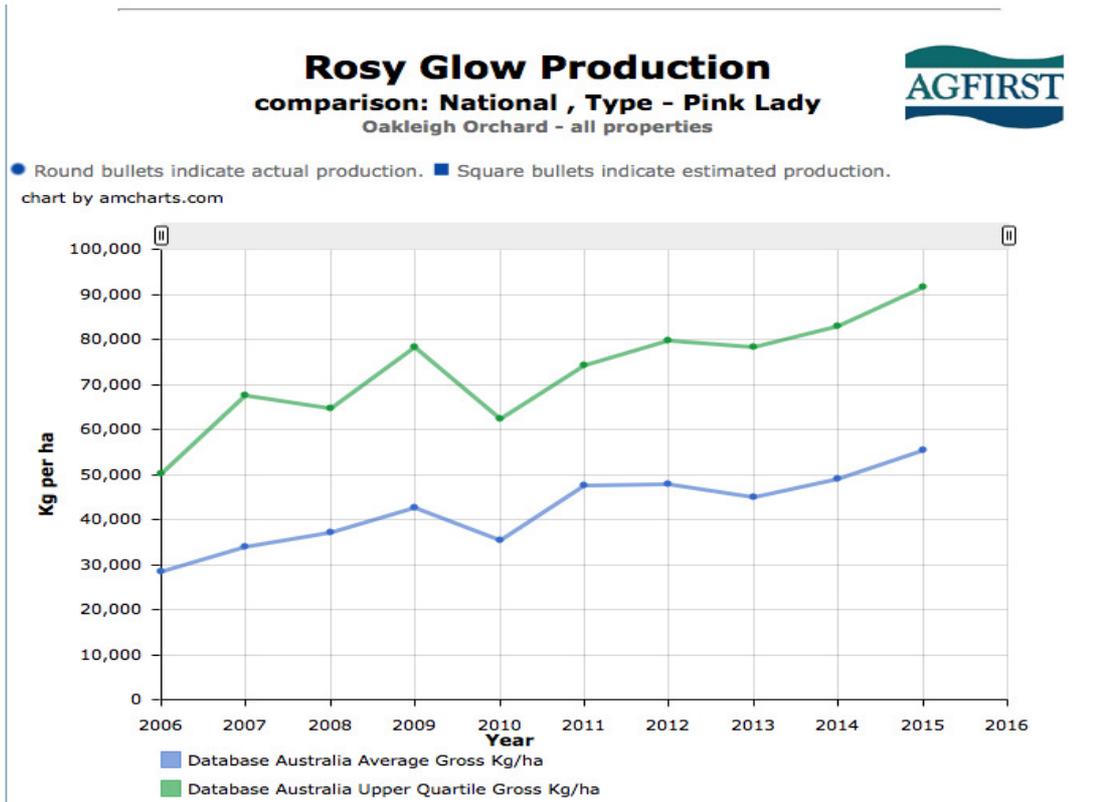
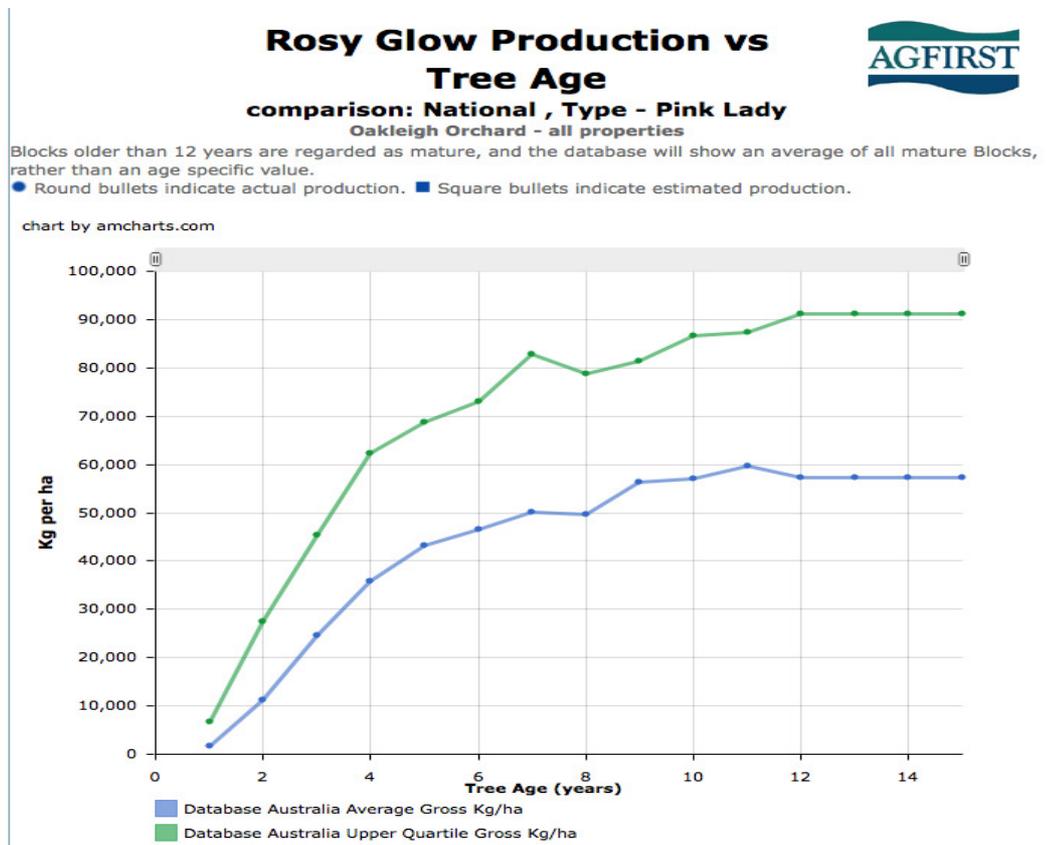


Figure 2 Pink Lady Gross production by tree age



But don't stop there; use your historical data to set a 2016 "sweet spot" target for each block of trees. Then use the winter pruning and thinning reports to help you farm towards your "sweet spot" targets.

OrchardNet Upgrades

We are continually working on ways to improve OrchardNet as a tool for the fruit industry. Two of our recent improvements include a "Water Centre" and a "Nutrition Centre".

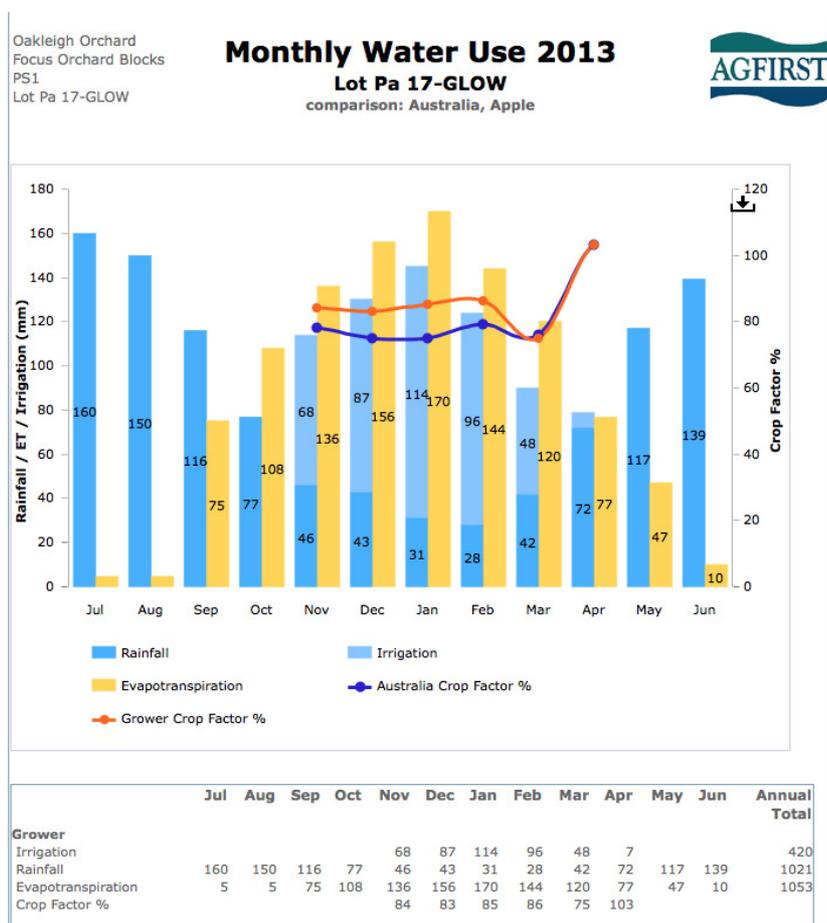
Water Centre

The water center in OrchardNet is designed to be able to track your irrigation water use against ET and rainfall. It is a long term planning tool rather than a daily or weekly irrigation-scheduling tool. All you need to do is enter ET, rainfall and irrigation data, then OrchardNet can produce nice, easy to understand reporting such as the monthly water use graph over the page.

Figure 3 shows water use for Rob Green's Rosy Glow Blk 17 in 2013. This block has been well reported before, consistently producing 100 t/ha of high quality fruit. Interesting Rob used 4.2 ML per ha irrigation water to grow the 2013 crop. However, unless you're a neighbour of Robs, the 4.2 ML means absolutely nothing as your ET and rainfall will be very different to Oakleigh Orchards.

The real take-home is the crop factor he effectively used. The crop factor is the percentage of water going into the crop compared to reference ET or ETo. In Rob's case his crop factor was 85% in the 2013 irrigation season. The water scientists tell us that the crop factor for a mature apple canopy is likely to be 70-80% in full summer if you only irrigate the trees not the grass sward in between. Rob's trees have a large Tree Row Volume and he root prunes for vigour control. This may be a good reason for his irrigation regime to be at 85% as shown.

Figure 3 Oakleigh Blk 17 Water Use 2013

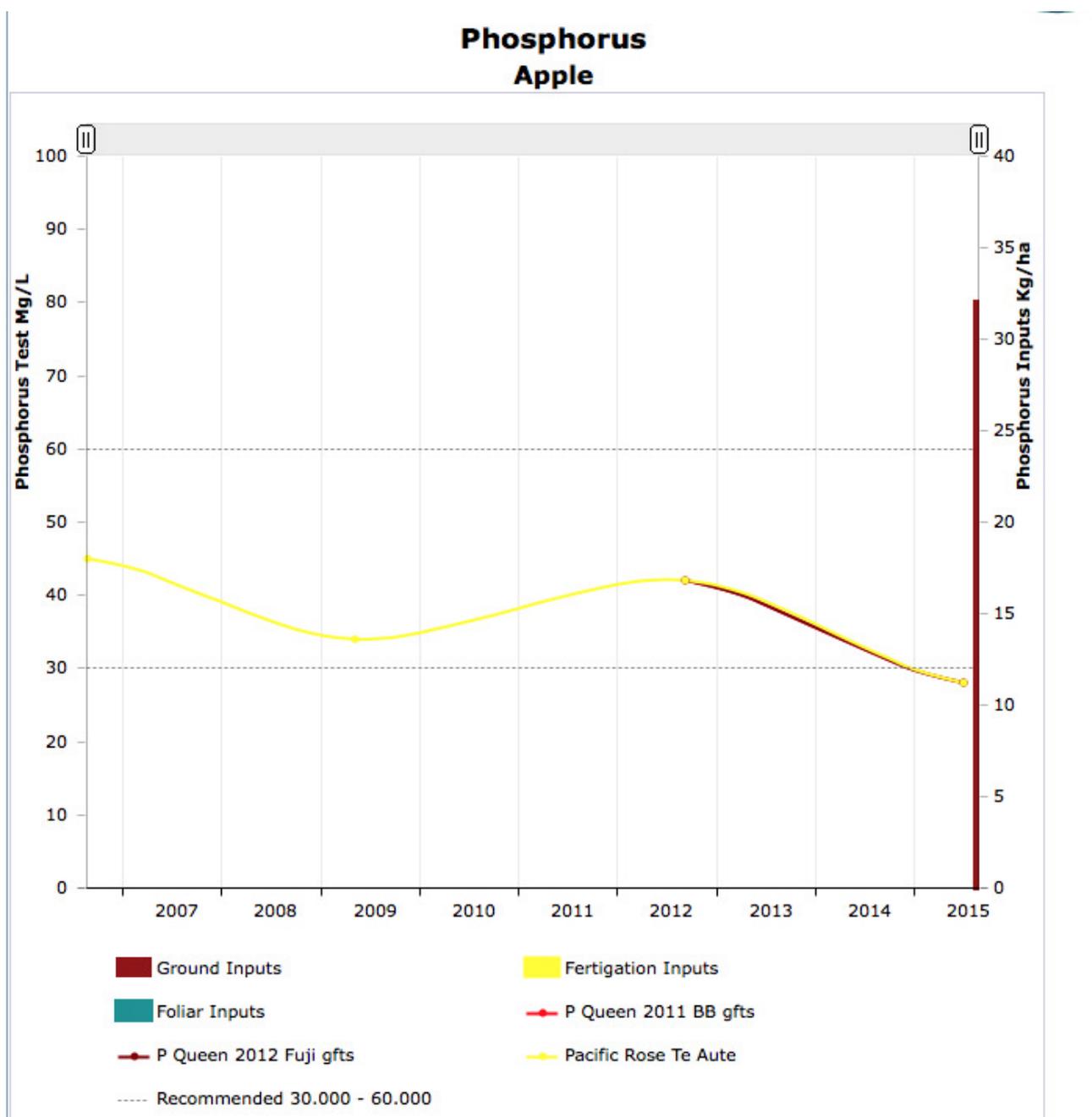


Nutrition Centre

Have you ever wanted to be able to see how your nutrition levels have changed over time. How your soil nutrition levels have responded to various fertilizer inputs? Well OrchardNet can now achieve both of those objectives plus a lot more. We have developed reports to track soil nutrition, fertiliser inputs, leaf and fruit test levels.

With good historical data in easy to read reports, fertilizer applications can become more fine-tuned to your own orchard rather than using the current broad-brush recommendation method. (Fig 4)

Figure 4 Sunpeach Phosphorus soil levels over time.



Both new tools are well described in the online manual. Have a go with a couple of blocks. We hope you'll like what you see.

OrchardNet now compatible with all tablets and smartphones

The full OrchardNet functionality is now available on smartphones and tablets. No need to go back to the office to enter data or view reports.

Now all graphs, including the fruit size graphs can be accessed in the field on the go. No need to spend time in the office and no need to print reports. That must be good.

For help or support with OrchardNet contact either your local Front Line Advisor or your Agfirst consultant. Contact details are shown in the table below.

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