



Maximizing the Use of OrchardNet ~ Part 1: Production Components

OrchardNet is a powerful orchard management tool that does so much more than track fruit size and leader extension. All Future Orchards Business Development members have the ability to use the full site and harness its true potential.



This article takes you through a step by step process of how to enter your production data into OrchardNet and then harness its power. This article supports the online Manual which can be found on the left hand toolbar of the OrchardNet site. Look for the purple question mark.

The system will be much more powerful if you have 2 years actual data and a forecast for the upcoming crop. Remember apples are not an annual crop.

Step 1: Block Details

Make sure the Block Details table is complete. The only fields that are non-essential are RPIN, and soil profile. Make sure all others are filled in. The year planted is critical to be able to run the Tree Age reports.

Step 2 Block Year Details

Make sure the essential block year details are all recorded. This includes tree number, row and tree spacing, and planted area. Prodn Site, Management Area, Packhouse and Marketer are optional.

Step 3 Block Production Actual

For the past two cropping years, enter the actual block production. Although you won't have the full details of the crop that has just been picked, you will have bin numbers off the block, and I bet you have a pretty good idea of packout and size. Remember OrchardNet is a dynamic database, what you enter now can be updated with more precise data later. You have 3 methods to enter production data: either kgs, tces or bins. Refer to the online manual for assistance with this. We would encourage you to get used to using the kg form. Gross kgs is the total volume harvested off the block including any juice picks.

“kg to packhouse” is the volume submitted for packing. Fruit size is the average fruit weight in grams. Hopefully the rest is self explanatory.

Step 4. Now have some fun running a couple of production reports.

The two reports you can now run are the “Block Prodn by Year” and “Block Prodn vs. Tree Age”. The reports can be run at a company, property or block level. All reports can be accessed by clicking on the graphical icon. The report you get will depend on what part of the site you’re in when you click the graph. E.g. if you’re in the block, you will only get a report for that block. If you’re at the company level you’ll get a report for the entire company.

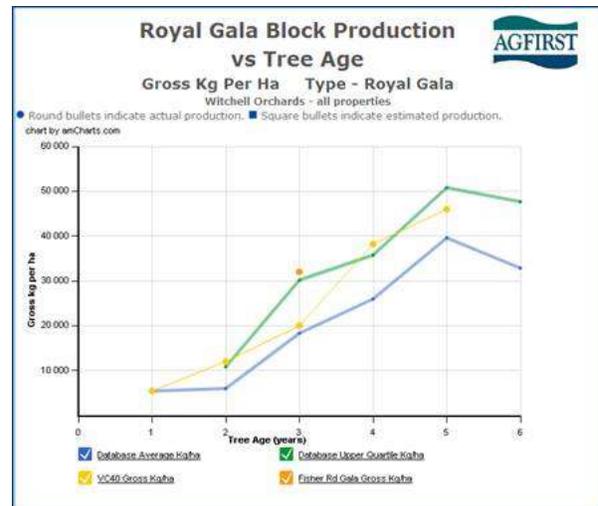
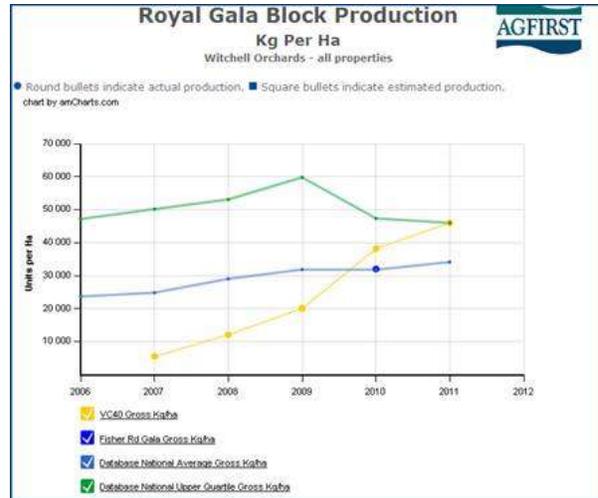


These two report’s will be able to compare your production by year or by tree age with the database average and upper quartile. Note in the graph to the right the average yield for 5th leaf Royal Gala is 40t/ha and the Upper Quartile 50t/ha.

Step 5: Setting the target for next year

With the data above and your knowledge of your trees and your market, set up your target’s for the next season. The critical component here is setting a target that is appropriate for the block and for “your market”. As an example we will consider VC40 which are the graphs above. I have assumed I have measured the trunk cross sectional area and it is now at 16cm². The tree age trend line suggests 55t/ha is achievable in 2012 so this is our first target. Remember the target can be reviewed as the season progress’s so your first attempt may not be your last. We then enter the 2012 target into the Block Prodn Estimate” table. When you do this make sure you enter all fields including the fruit size target.

Also entering a couple of pieces of data into the “Block Metrics” table will help. I would suggest as a minimum you enter the Truck Cross sectional area of any block less than 8 years old and the bud numbers required per fruit. If you have no idea on target bud numbers required on your trees I would work on 1.2-1.5 bud’s per fruit on non biennial varieties and 2.0-2.5 on biennial varieties. Once you get



more and more knowledge you can start to be more precise with this as we have discussed on previous Future Orchard walks.

Step 6 Run the Winter pruning and Thinning management reports

Once this is done you can now run several more reports including the Winter Pruning Report, and the Thinning Report.

Company: Witchell Orchards Property: Young Orchard Block: VC40		Winter Pruning Report Season Ending 2012									
Blockname	Ssn	Gross Kg/ha	Class1 Kg/ha	Fruit Harvested Size /Tree	Fruit /Tree	TCA Harvested /TCA	Buds/ Fruit	Target Buds/Tree post-prune	Monitor Buds/Tree	Actual Buds/Tree post-prune	
Young Orchard											
Royal Gala											
VC40	2012	55,000	46,364	100	191	16.00	11.9	1.1	211	-	
	2011	46,000	40,480	100	160	13.45	11.9	1.1	176	-	
	2010	38,200	32,088	101	134	11.00	12.2	1.1	148	-	
	2009	20,000	17,000	108	75	7.50	10.0	1.1	83	-	

Orchardnet® is a product of AgFirst
Phone: 64 6 872 7080

The winter pruning report shows very clearly the historical performance of the block and the target number of buds per tree. This means you as the grower can now prune a few monitor trees, count bud and modify the level of pruning before the whole block is completed. Good management stuff.

Company: Witchell Orchards Property: Young Orchard Block: VC40		Thinning Report Season Ending 2012									
Blockname	Ssn	Gross Kg/ha	Class1 Kg/ha	Fruit Harvested Size /Tree	Fruit /Tree	TCA Harvested /TCA	Tree Pickout %	Target Fruit/Tree post-thin	Actual Fruit/Tree pre-thin	Actual Fruit/Tree post-thin	
Young Orchard											
Royal Gala											
VC40	2012	55,000	46,364	100	191	16.00	12.0	95	202	-	
	2011	46,000	40,480	100	160	13.45	11.9	95	169	-	
	2010	38,200	32,088	101	134	11.00	12.2	95	141	-	
	2009	20,000	17,000	108	75	7.50	10.0	95	79	-	

Orchardnet® is a product of AgFirst
Phone: 64 6 872 7080

The thinning report will be used at hand thinning time next November/December. This shows similar data to the pruning report but is focused on fruit numbers required per tree. A critical piece of information in the thinning report is the tree pickout. This is the number of fruit that is lost between thinning and the bin. On most varieties it is a minimum of 10% but on some varieties which have a drop tendency can be as high as 20%. Consult your advisor on this figure.

Step 7 : Record your Plans and Objectives

And while the results of the current crop are fresh in your mind remember to record your plans and objectives for each block into the “Block Notes” table. (see below)

Block Notes:

add a year: 2010 2009 2008 2007

x Year Note

X 2012 Set target at 55t/ha, 12 fruit per cm². Everything worked in 2011 so just repeat 2011 plan but with a higher yield.

X 2011 Target 100 count avg size, mid harvest and maximum colour. Set target at 50t/ha, 13 fruit per cm². Chemically thin aggressively, use BA 1/ha 3 shots, hand thin to target prior to mid December. Dont use Relective as too hot and this blk doesn't need it. Aim to harvest at SPI 1.5-3.0 to maximise storage life. Use Smartfresh and CA on late market fruit.

Step 8 Only for the advanced

In the next article I will explain how to use the financial components of the website but judging by some of your emails, a number of you are well ahead of the pack. Suffice to say at this stage, have a go and see how you get on. Returns are entered as gross returns net of commissions. Consult the online manual for description of how to enter costs. Once these are entered you can run the “Block Profit” and “Block Profit Summary” reports.

Ongoing OrchardNet Use

To clarify the use of OrchardNet going forward. Over the period 2012-2014 APAL are funding the use of OrchardNet in Australia through the Future Orchards “Business Development Program”. This ends on the 31/3/2014. Depending on APAL’s plans, there is the possibility that this funding may stop (in a worst case scenario). Under this eventuality, growers will continue to have online access to their online data but beyond 31/3/2012, they will no longer have an active subscription, which means that no changes or additions of data will be able to be made.

If you can see the power of OrchardNet and would like to continue with an active subscription you will be able to for a cost of \$25 per block per annum plus GST.

Until next time, good luck with the harvest of those last few bins and may the market continue to pay fair money.

Ross Wilson

ross.wilson@agfirst.co.nz



Funded By

