

## Focus Orchard Case Study: Growing good yields of big Gala

**Orchard:** Battunga

**Orchardist:** Mark Trzaskoma

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Figure 1: Mark Trzaskoma, Battunga Manager

### Background

Battunga invested significantly in modern intensive plantings of Brookfield and Buckeye Gala between 2002 and 2006. A total of 26.4 ha were planted at 3.7 \* 1.5 m spacing, predominately on M9 rootstock. Although yields had been steadily increasing, management were disappointed that they were only achieving an average of 32 t/ha, approximately national average. . Something needed to change.

### Objective

To average 40 t/ha, 160 g and 85% C1 recovery off all Gala blocks by season 2014.

### Method

During the business planning sessions, several potential improvements to the Gala production were identified. Many blocks had a significant WAA bud damage carry over problem (Fig 2).

The strategies included:

- Finish the netting to cover 100% of the Gala area in 2013



Figure 2: WAA Bud Damage on Gala winter 2012

- Prune to calm pendant fruiting units aiming for 1.5 buds per fruit.
- Change chemical thinning regime from multiple secondary Carbaryl/Thiram combo thinners to a more aggressive bloom thinning program of Ethrel, ANA and combinations of both. The aim was 2 fold; 1 to set optimum crop load more quickly and, 2, to avoid the negative IPM issues of multiple Carbaryls.
- Hand thin as soon as possible to a target fruit number. These were accurately calculated for each block using historical performance with OrchardNet.
- Weekly fruit size monitoring of 20 fruit per block to identify stress points
- Avoid the use of all pesticides known to impact on A Mali populations and use Confidor™ root drench for better WAA control.
- Close monitoring and management of nutrition and irrigation
- Be prepared to take multiple selective picks rather than strip pick

## Results

- A good pruning job was carried out with the bud density ended up averaging 1.8 buds per fruit (Fig 3)
- The aggressive primary thinning program worked well, with most blocks only requiring one secondary thinner. BA was the secondary thinner of choice to avoid the use of Carbaryl.
- Hand thinning was all completed prior to Xmas, with fruit counts against target giving good QA confidence.
- Fruit Size monitoring identified stress points that were acted on e.g. a hard mow in Block 32 resulted in a fruit size drop off mid January due to excessive heat (Fig 4).



Figure 3: Typical Gala setup after pruning 2012

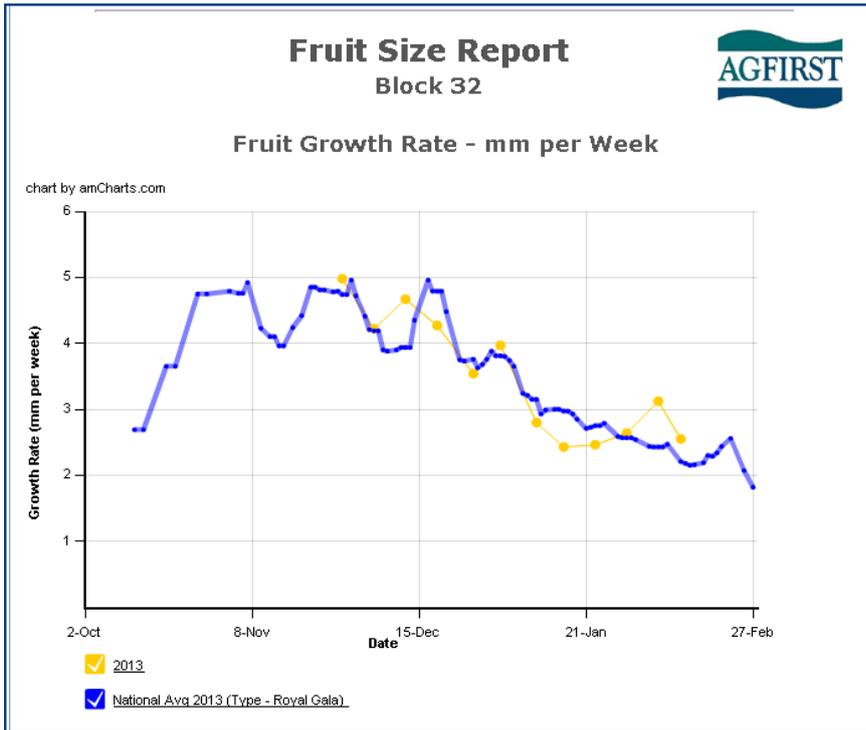


Figure 4: Fruit Growth Rate Block 32

- The WAA program of Confidor and nil use of antagonistic pesticides resulted in a WAA free crop.
- Water supply was tight and got down to 7mm per week effective.
- Most blocks had 4 picks due to the poor colouring conditions this year. The cost per bin was only increased by \$2/bin over the rate a strip pick would have been (a great investment). The marketer is excited by the consistency and quality of the product and is expecting a good market result.
- The 2013 Gala crop lifted to 35 t/ha average, estimated Class 1 packout of 90% and an average fruit size of 170 g. Buckeye Blocks averaged 43 t/ha (Fig 5 & 6)
- Post harvest inputs have been maintained and a lack of WAA damage has set up good bud strength for 2013~14.
- Battunga is on target to achieving the goal of 40 t/ha in 2014.



Figure 5: Block 23 just prior to 2013 harvest

# Buckeye Gala Block Production



Kg Per Ha

Battunga Orchards - all properties

● Round bullets indicate actual production. ■ Square bullets indicate estimated production.

chart by amcharts.com

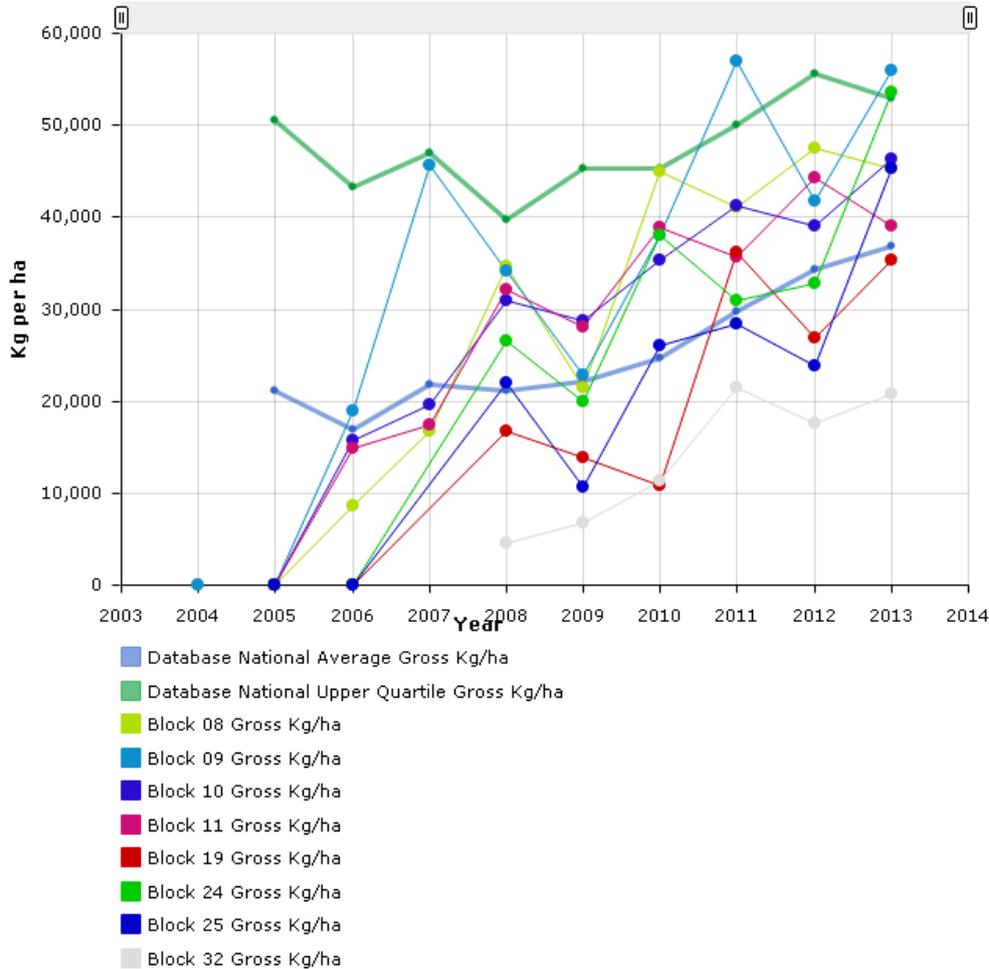


Figure 6: Battunga Buckeye Gross Yields

