

AROUND THE NELSON REGION...

ZINC

A number of Apple leaf test results across the district are showing low Zinc values. Deficiencies of this micronutrient may not show up in the earlier round of leaf testing as fungicides such as Polyram often contaminate the leaf samples, masking low levels and causing the lab results to read high. The target range for an apple leaf is 20-50ppm.

Zinc has a role in the hormone production of buds and the movement of calcium within the tree. Deficiency mainly effects the above ground portions of the trees with poor leaf and shoot growth and this results in less carbohydrate production from the flowers and developing fruit.

Low levels of Zinc are best addressed with a foliar spray. This should be a Post-harvest application as applications at this stage of the season now may cause russet on the fruit.

Sarah

MATURITY TESTING

Identical to past season, people seem to love to have a yarn about maturity progression and where things are headed.

We all know that starch assessments can leave some room for interpretation, but generally the average result will be fairly consistent between people. but it really comes down to being accurate when collecting the sample.

We are collecting a 20 fruit maturity sample out of a block. If that block is 1ha in size, with 3,000 trees and 180 fruit/tree we are dealing with 540,000 fruit per hectare. A 20 fruit sample is a very small proportion of that. The aim is to collect a selection of fruit that accurately represents the actual maturity in that block.

We collect samples from at least 4 rows in a block, avoiding the 5% most advanced fruit. If your maturity results seem odd, test again. Keep in mind that a 20 fruit sample is a small number and specific choices when sampling can make your SPI results appear progressing rapidly or flatlining.

Ulf

KIWIFRUIT TRUNK GIRDLING

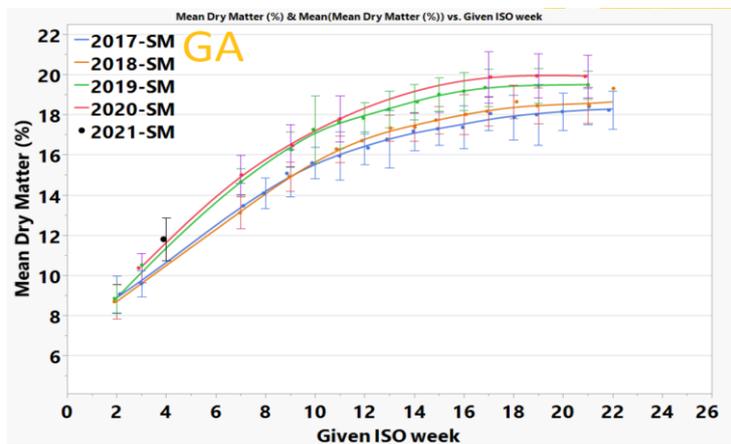
Trunk girdling of both male and female Gold3 and Hayward vines will begin later next week and into the following week. This is the most important girdle of all as it has the biggest affect on dry matter, therefore careful checking of every girdle is important. I have had more issues caused from poor girdling at this time of year than pretty much any other factor affecting fruit dry matter. It is also important to girdle the male vines as well as this helps bring the flowering forward next spring and encourages better synchronicity.

Even hail damaged blocks that have no fruit for harvest this year should girdle the male vines to close the flowering gap between females and males.

Steve

GOLD3 AND HAYWARD UPDATE

The first round of Zespri national smart monitoring was completed recently and the results from week 4 show dry matter tracking around 12% for Gold3 at an average of 100gm fruit size. Locally Nelson is similar although very few samples have been processed. Hayward fruit size is a little smaller at 70gm and dry matter at 10.24%. It is still early days and any growers wanting monitoring done locally can contact our local office in Nelson or Hbay to arrange testing.



Steve

AROUND THE HAWKE'S BAY REGION...

THE INFLUENCE WATER HAS ON FRUIT QUALITY AT HARVEST

For late varieties, right now one of the most important factors to get right is irrigation. Water will have an influence on fruit quality leading up to harvest. Generally, if you are over irrigating dry matter and pressures are reduced and if you are under irrigating fruit size takes a hit.

Optimal irrigation can be achieved by using a combination of soil moisture monitoring and basic water budgeting techniques. All too often growers will depend on just one of these tools and compromise yield and fruit size as a consequence. The two combined provides a useful cross reference to ensure that irrigation inputs are optimised.

An appropriate crop factor must be used to calculate evapotranspiration (ET) for your crop, reflecting the amount of water likely to be lost from the growing system. Research suggests that mature apple and pear trees typically have a crop factor of 70% (50% in drip irrigation) of reference evapotranspiration.

Irrigation applied can be calculated by dividing the irrigation output per sprinkler/dripper by the surface area covered per sprinkler as in the following example:

- Irrigation output/sprinkler = 30 l/hour
- Surface area covered/sprinkler = 16.9m(4.5m x 0.75m x 5 trees)
 - o Effective irrigation = 1.78 mm/hour (30L/16.9m²)

We do not want to be at field capacity for too long. Some root zone drying is good as it helps to improve our fruit quality. This is more important as we get closer and closer to harvest. In a dry year like this, the frequency of your irrigation will influence your harvest outcomes. It is better to be irrigating regular and often, especially on sandier soils to ensure the roots are getting access to a good distribution of water. It is also important to note that fruit quality will reduce in varieties that suffer from internal issues with large quantities of water applied. Effectively you are filling the pores in the fruit restricting their ability to 'breathe'.

Jump onto the monthly water analysis tool in OrchardNet to cross check how your water budgeting is going this season and keep your finger on the pulse.

Jack

QUANTIFYING ORCHARD VARIABILITY

AgFirst HB had the opportunity to assess variability for a block of Breeze™. To assess the variability, we flew our drone over the orchard and captured images of the block.

We created vigour zones (Figure 1) and determined the area for each zone from the images. What we discovered was that the block had more variability than initially thought.

We ground-truthed the results and found that the trees in the Red Zone (Figure 2) were significantly smaller than the trees in the Orange Zone (Figure 3).

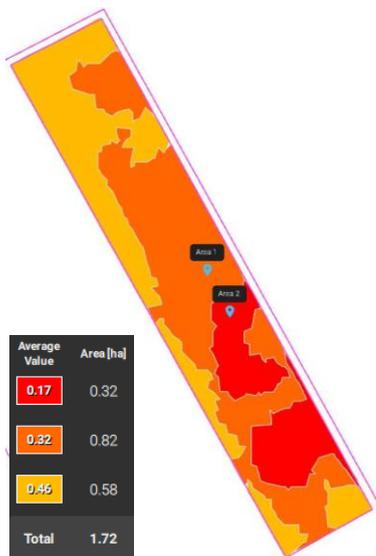


Figure 1. Vigour zones in a block of Breeze™ with the area quantified (in hectares).

With this information, the grower will increase N and adjust fruit load in the Red Zone to bring the tree size up.

This assessment can be used to identify zones for any horticultural crop.

Call or email Justin to book a survey for your orchard.



Figure 2. Photo of small trees in the Red Zone.



Figure 3. Photo of average size trees in the Orange Zone.

Justin