Apata Christmas Field Day 27th November Jerome Hardy

A. Export packout: Future-proofing our business

- How the landscape ahead is changing: my take on volume and demand
- Reject fruit: The Consumer's problem to deal with or Mine?
- Our response as growers: Strategies to lift Export Packout: Set yourself a BHAG and target 90%
    - Pruning: Tree size affects pest monitoring, spray coverage, tree health, fruit size, picking efficiencies:
        - Pruning should be an annual exercise, even though the emphasis will be heavier in the lighter crop years. If you do not do an annual sweep of the orchard you will miss opportunities (i.e. that tall branch that carried a heavy crop over the past season needs to be cut down NOW or it will be even taller next year (and carrying another heavy crop).
        - Reduce complexity in your canopy and create **bold space** around your selected leaders.
            - 10 years ago: One large tree meant one huge bearing unit which was difficult to access.
            - Today: One large tree means 3 smaller bearing units with ample light and space around each, and much easier to access
        - 'Succession Plan' i.e. variable height with the guiding principle being that the highest wood will be your heaviest cropping wood over the next season but also the next in line for removal.
    - Pest Monitoring and Sprays: *See Avoco handout*

LEAFROLLER: Control options should be rotated and are Prodigy, Proclaim, Success, Sparta. Altacor and Comic are good options but be careful with long WHP's.

Mavrik and Lorsban should not be used.

GREENHOUSE THRIP:
React to a 2% threshold with a back-to-back spray.
Remember to spray your *Cryptomeria* shelter as this is a strong host for greenhouse thrip.

Control options are Calypso, Sparta (at the 40ml/100litre rate), Diazinon, Fyfanon and if there is a drift risk to neighboring kiwifruit in the summer/autumn- apply Pyganic in the evening (to avoid breakdown by UV).

B. Six spotted Mite Control: *Becoming more challenging and requires a change in strategy*

Mite infestations can occur at all times of the year. Mites are an arch-enemy of leaf/canopy health so pest-monitor regularly.

Paramite: Our most effective tool. Apply once a year only. Slow-acting as it disrupts moulting in the nymphs and sterilizes the adult females (so the adults still have 30 days of feeding on leaf sap). Longevity of effect is not what it used to be and we cannot rely exclusively on Paramite as we are getting more than one sustained rise in mite numbers every year. If mite numbers are increasing rapidly and already high i.e. you have any in the 10+ category then you should apply **a combined Avid and Paramite.**

Avid is a cheap and effective knock-down option especially if applied back-to-back, and also offers moderate control of leafroller. Apply a maximum of 3 sprays a year. A temporary measure only…. buys time. Include oil at 0.5-1% if applied in the autumn / winter / spring but beware of phytotoxicity. Will not check a sustained population 'explosion'.

If we are getting more than one sustained increase in mite numbers, then what other measures can we use.
Mit-E-Mec is an expensive option and only for use in the late spring and summer as the effectiveness is heavily dependent on soft flush. My experience is that it is barely effective in the autumn, winter and early spring.

Strategy (always subject to pest monitoring data): *Aim to push Paramite as late as possible into the winter (July)…*

Between now and February: Deal with a mite infestation using MiteMec + non-ionic surfactant

March to June: Buy time using Avid+Oil

July: Apply Paramite allowing a 63-day WHP before harvest. Add Avid if pressure is high (keeping to a max of 3 x Avid applications annually).

FINALLY, if we are to maximise production and packout then a keygoal is Tree Health. Pruning and Six-spotted Mite Control which we have discussed above are key drivers towards tree health. The third should not go un-mentioned is Phytophthora Control.

Ensure all trees are treated once annually for *Phytophthora* (preferably during March to June) using low-pressure injection at the rate of 15 % phosphonate.

Mix to achieve 15% concentration :

- 3 parts chemical to 5 parts water if using 400g/litre formulation such as Foschek.
- 1 part chemical to 3 parts water if using 600g/litre formulation such as Agri-fos600.

Number of syringes:

- Apply 1 syringe per meter of canopy diameter for trees 4 years old to 15 years old.
- Apply 1.5 syringes for every metre of canopy diameter on trees 15+ years old

Syringes should be evenly distributed around the trunk.