## **Observation Report – Tauranga Hayward - 30 September 2014**



## Location: Tauranga Orchard Elevation: Unknown

Background: This Hayward block is on a colder site and was badly frosted in June 2014. Males are older varieties and were badly affected by Psa-V in spring 2012. In summer 2012 some regrowth of canes occurred and in 2013 year a moderate amount of flower was available for pollination. Small fruit size at harvest 2014 however did indicate pollination had been sub-optimal. Males are bushy, with high growing points off the leader and late season high growth has been retained. Structure would be expected to challenge spray penetration.

A minimal Psa-V protective spray program is in place for this orchard.

Spray programme to date: For 2012-2013 season – one copper (September).

For 2013-4 season two coppers (September /October) and one Actigard (October)

**Observations:** Many of the males were showing very poor bud-break, with some vines appearing quite dead. Female vines in the block are breaking normally. Those males in the most sheltered block positions (row ends adjacent shelter belts) had approximately 15-20% of canes active but the balance of vines (50%) were counted as only having between two and thirteen shoots bursting across the whole vine.

Males were heavily cankered with exudate on canes and expressing at multiple points along leaders.

Adjacent female vines were not currently showing Psa symptoms although some individual canes extending into the male canopy did have exudate expressing through end buds.

Overall 50% of male vines appeared unlikely to provide any flower this season and for the balance the high level of Psa-V was thought likely to compromise flowers. Removal of infected material and an active spray program including copper and Actigard was recommended to reduce risk of female shoot and flower-bud infection. Artificial pollination plus regrafting of males was also suggested.



Figure 1: Sheltered end males showing some budburst.



Figure 2: Figure 2: Example of internal row males with little or no budbreak



Figure 3: High levels of cankering -male vine

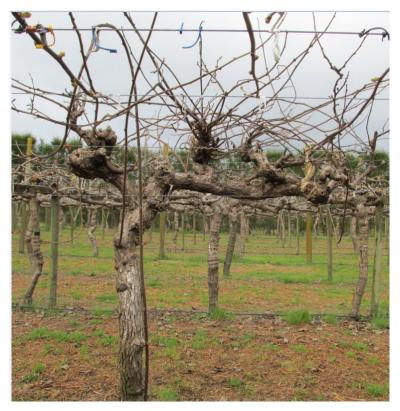


Figure 4: Male vine with high late growth.



Figure 5: High growing points. Minimal bud break.

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