# **KVH Information Sheet**

## **M33 Information Sheet**



#### **Psa-V Susceptibility**

This information is compiled from growers, consultants, orchard management staff, KVH observations and industry feedback.

- M33 is not resistant to Psa-V, but appears to be the most tolerant male cultivar suited to Gold 3 and Green14.
- M33 scions grafted into more established rootstocks appeared to be more Psa-V tolerant than those grafted into younger rootstocks.
- In orchards with high Psa-V pressure, M33 scions have remained relatively free of Psa-V. Some cane removal and minimal cases of partial leader removal were reported. Only one case of full leader removal was
- In one exceptional situation, three vines were completely removed. These vines were grafted seedlings
  planted in 2010 in an unfavourable growing environment. The vines were already stressed before Psa-V
  infection occurred.



- In a clonal trial block of male pollinisers in Te Puke there are a small number (seven) of M33 vines in the block. None of these have been removed due to Psa-V.
- In the limited 'bioassay' work that has been conducted M33 scores towards the 'least susceptible' end of the scale, alongside Chieftain.<sup>i</sup>

#### **Flowering**

This information is compiled from growers, consultants, orchard management staff, KVH observations and indusry feedback.

The timing and length of flowering was similar for all reported regions in 2011 (Katikati, Tauranga, Te Puke, Opotiki and Gisborne).

- Flowering generally began mid-October and ended mid-November.
- Flowering overlapped well with Gold3 and Green14 flowering.
- M33 was reported as the most floral male variety for all but one orchard surveyed. (Up to three times more floral than M91).

It is important to note that it is is undesirable to have only one male polliniser as synchronicity from year to year with each cultivar is not possible to guarantee.

### **Additional observations**

- Growth is moderately vigorous less vigorous than M91 and Bruce.
- Stronger healthier vines are more floral.
- Blocks with high water tables, shaded canopies, and prolonged periods of leaf wetness have higher disease incidence and are less floral.
- The most successful grafts were those grafted in mature rootstocks, in a good growing environment, with short periods of leaf wetness.

#### **Moving Budwood**

Movement of plant material poses one of the greatest risks in the long distance transfer of Psa-V. Presently there is no effective way to 'clean' infected material or guarantee the status of any material. Movement of plant material from or within areas known to have Psa-V carries added risk.

All suppliers of budwood are required to comply with <u>KVH protocols</u>. All growers receiving budwood do so at their own risk as Psa-V free budwood cannot be guaranteed.

Records of the source KPIN for the budwood must be maintained and receiving growers need to also confirm the Psa-V status and region of the supplying KPIN and ensure <a href="KVH movement protocols">KVH movement protocols</a> have been observed.

#### **Additional Information**

There are other males for Gold3 and Green14 that are under development but they are not likely to be released before May 2014.

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<sup>&</sup>lt;sup>i</sup> Plant and Food Research has developed a woody stem 'bioassay' as an indicator of tolerance to Psa-V. The 'bioassay' is still in the early stages of development and should not be interpreted as an absolute measurement of tolerance.