

Monday 6 May 2024

STATEMENT OF POSITION 2024 PROPAGATION SEASON

The Vine Industry Nursery Association of Australia is the certifying body for grapevine nurseries in Australia. Our members are working to be proactive in the viticultural propagation sector and are audited annually for their compliance to our protocols.

VINA is aware that there has been significant industry discussion regarding new science arising from the observation of vines recently showing gall-like symptoms in the absence of the traditionally known causal pathogen.

CURRENT STATUS:

- Crown Gall in grapevines is known to be predominantly caused by *Allorhizobium Vitis* (formerly called *Agrobacterium Vitis* or Biovar 3) and less commonly by *Agrobacterium Tumefaciens* (a strain of Biovar 1).
- A broad array of *Agrobacteria* species are endemic across Australia and are widely found in the environment, including those known to cause Crown Gall Disease.
- Diagnostic testing to try to identify the cause of tumours is difficult as it involves determining the 'Biovar' and strain of any *Agrobacteria* present as well as then understanding if it is pathogenic or not by detecting the presence of a Tumour-inducing Plasmid.
- As yet we do not fully understand which exact *Agrobacterium* strains may be contributing to these gall-like symptoms. Adelaide University is embarking on a research project to classify this and devise appropriate diagnostics.
- Currently there is no test available to show if the tumour inducing plasmids are present so a positive test that confirms the presence of *Agrobacterium* does not necessarily mean that tumours will be induced by wounding.
- The industry has a response in place that is developing further testing procedures.
- Visual inspection of source vines cannot determine the presence of *agrobacterium* or potential for gall-like symptoms.
- *Agrobacterium* is not evenly distributed within the vine so sampling to determine the presence or absence of *agrobacterium* is difficult. Currently there are no standard sampling procedures.
- Hot water treatment (HWT) is the only currently available treatment. HWT reduces but does not eliminate the titre (or amount of) *agrobacterium* in vines. It is not known if HWT works against all species of *Agrobacterium*.
- Expression of gall-like symptoms has been variable, and it is likely that the environment in which they are planted, seasonal weather and cultural practices in the vineyard are contributing factors. Site selection is known to be important to reduce the risk of expression.
- The propagation industry has undertaken trace back of vines that have expressed gall symptoms and is collating and analysing these results.

WHERE TO FROM HERE?

- Currently testing and visual inspection is not definitive and sampling is difficult. This makes testing of limited value until new testing techniques are available.
- The endemic nature and difficulty in identifying Agrobacterium in propagation material or soil means that all producers in the propagation chain are unable to provide assurances as to the status of material.
- Tracing of material that has shown symptoms will be used to guide and minimise where possible further distribution of suspect material.
- The current unknowns around pathogenicity and testing, sampling and treatment difficulties means that supply of propagating material to nurseries, or vines to growers, will occur with some risk of presence of Agrobacterium. It is important that anyone ordering vine material knows and understands these risks and must determine for their own situation what level of risk is acceptable.
- We encourage all growers to discuss with their propagation supplier these risks and determine how to address them.

VINA is continuing to work closely with Vine Improvement Groups, Wine Australia, AWRI and State Departments of Agriculture, University researchers and other international colleagues to improve our knowledge of causality of galls, agrobacterium testing protocols and possible treatments to ensure Australian propagation material is of the highest possible health status.

Ongoing discussion and distribution of best available knowledge is vital to allow vineyard owners and propagators to determine what level of risk is acceptable and what response is appropriate.

AWRI FACT SHEET

A link to the current AWRI Agrobacterium Fact Sheet follows. This fact sheet is in the process of being updated to include further and better information arising from the work of the Agrobacterium Industry Response Group and a link will be available soon on the AWRI website.

<https://www.awri.com.au/wp-content/uploads/2024/03/Crown-Gall-in-Australian-Vineyards.pdf>

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