



Grafted Grapevine Standard

Ensuring Premium Healthy Vines

The New Zealand Winegrowers Grafted Grapevine Standard (GGS) was developed by New Zealand Winegrowers in 2006 in conjunction with a technical advisory group that includes industry practitioners, nursery representatives and scientists.

Its purpose is to provide assurance to growers, viticulturists, winemakers, and other stakeholders, that the grafted grapevines they purchase meet set standards.

The GGS is reviewed annually by the technical advisory group.

What is the Grafted Grapevine Standard?

When you buy GGS Certified vines you know they meet with the requirements of the New Zealand Winegrowers Grafted Grapevine Standard. A vine that carries the GGS certification has met the requirements in the following areas:

- ☐ True to type by variety
- ☐ Testing for GLRaV-3
- ☐ Vine health
- ☐ Documentation & Management systems
- ☐ Physical specifications

Grapevine nurseries may also choose to seek PlantPass certification through an equivalence arrangement with the GGS, by completing an additional Biosecurity Management module. More information about the PlantPass scheme is available at <https://www.plantpass.org.nz/>

✓ True to Type by variety

Rootstock and scion material have been subject to either ampelographic or DNA testing to determine trueness to type to the varietal level. This testing has been carried out by qualified and approved ampelographers and laboratories.

✓ Testing for GLRaV-3

All mother vines used to supply material for the production of grafted grapevines have been 100% virus tested for GLRaV-3 in the first year of use. Provided the vines are clean, a nursery can move to an annual programme, testing at least 33% of its scion wood and 20% of its rootstock every year to ensure it is GLRaV-3 free. Nurseries have a rotation plan so all scion mother vines are tested every three years and all rootstock mother vines every five years. Any positives found will be removed from the collection programme and the nursery will increase the frequency of testing. As an extra safeguard, virus testing is carried out on finished vines in the nursery beds. Samples of vines from individual graft lots are selected and tested for virus presence prior to lifting from the nursery beds. This process is supervised by an independent auditor.

✓ Vine health

Nurseries implement best practice aimed at reducing/ minimising the spread of fungi with the potential to cause grapevine trunk disease and young vine decline, including:

- Pest and disease monitoring and control in source and nursery blocks
- Application of pruning wound protection to all cuts
- Implementation of a nursery soil management plan – including a one year rest period after four years of use as a nursery, and the use of cover crops

✓ Documentation & management systems

Nurseries must follow documented procedures for the production of grafted grapevines based on an analysis of risks using HACCP, NZS ISO 31000:2018 Risk management or similar standard.

All aspects of the nursery operation

must be audited against the GGS annually.

✓ Physical specifications

Vines meet a series of detailed physical specifications. These are discussed in detail on the following page.



Figure 1. Grafted vines packed in sterile growing media.



Figure 2. Newly grafted vines being dipped in wax for graft wound protection.

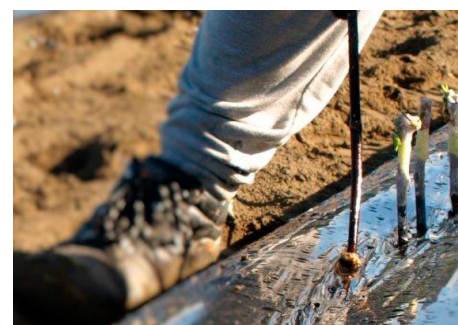


Figure 3. Newly grafted vines being planted in nursery field.



Figure 4. Vine being grafted in V graft machine.



How to tell if vines are Certified

Check the Label it should say –
“Certified to New Zealand
Winegrowers Grafted Grapevine
Standard, Version 4.1 - Schedule
xx xxx”

Look for the black and white GGS logo

How does the GGS link with SWNZ?



The Sustainable Winegrowing New Zealand (SWNZ) programme promotes viticultural and winemaking practices that protect the environment while efficiently and economically producing premium wine grapes and wine. GGS vines are an important part of the programme and SWNZ members are asked to commit that all future plantings are GGS certified.

What to do if you have concerns

If you think more than 2% of your vines are not up to standard, contact the nursery you purchased them from and let them know as soon as possible. If you have serious concerns about the ongoing quality of vines being sold as GGS certified vines please contact biosecurity@nzwine.com

What are second grade vines?

Second grade vines have been produced using the same procedures as GGS vines, including virus testing and trueness to type. However, they are **not certified** as they have **failed to meet one or more of the GGS physical specifications only**. Purchase of second grade vines should be discussed with your nursery.

For more information

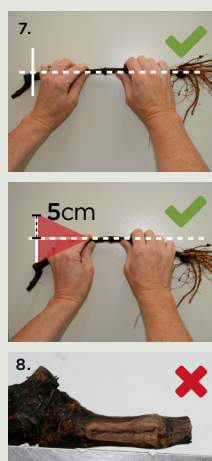
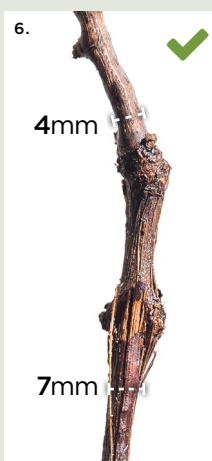
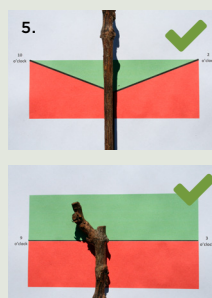
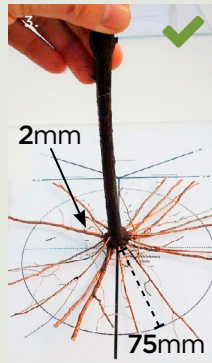
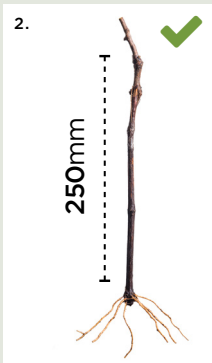
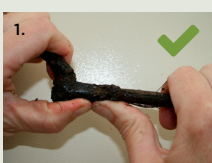
If you have any questions regarding the GGS, please contact New Zealand Winegrowers at biosecurity@nzwine.com

Check your vines on delivery!

Your vines are certified to meet a series of physical specifications. However it is still important that you check the vines when they arrive, to ensure you are confident they meet the GGS physical standards. Consignments of certified vines may contain up to 2% of the total that are outside these specifications - this is recognition that there will always be some variation in the supply of living products.

- Vines must be checked and concerns raised with the nursery within the timeframe stated on your supply contract.
- Sample across many boxes –orders under 1000 vines, inspect 5%. Orders over 100,000 vines, inspect 1%.

The following is a guide of the physical specifications you should expect for GGS vines. Check for:



1. Graft union Able to withstand the stress/bend test with medium pressure in two directions. Callus has no visible cracks or damage.

2. Stem length 250 mm min (base of rootstock to base of the first season's growth).

3. Roots At least 3 strong live roots (2 growing in opposite directions) with others evenly distributed. Root diameter 2 mm min at 10 mm from the base of the trunk, visually healthy, and if trimmed, at least 75 mm in length.

4. Buds At least 1 visible dormant bud above graft union

5. Curvature Rootstock curvature not angled beyond 10 and 2 o'clock from the perpendicular. Scion wood curvature not angled beyond 9 and 3 o'clock from the first bud of the previous season's growth

6. Thickness Rootstock 7mm min immediately below graft, and 4mm min for scion wood at the first clear internode. Both should be measured on the wider diameter if oval stock.

7. Flexibility Rootstocks shall be able to withstand moderate bending in two directions. As a guide, both vine ends should move about 5cm from the horizontal when bending without breaking.

8. Damage no more than 20mm damage or cracks on the budwood or rootstock.