

Grapevine berry inner necrosis virus



Plant Health
AUSTRALIA

EXOTIC PEST – CALL THE EXOTIC PLANT PEST HOTLINE IF SUSPECTED

What is Grapevine berry inner necrosis virus?

Grapevine berry inner necrosis virus (GINV) (*Trichovirus necroacini*) is a positive-sense single-stranded RNA virus that infects grapes. GINV impacts the health and productivity of grapevines and is associated with leaf mottling, grown abnormalities and internal berry necrosis (death of plant cells or tissues).

GINV was first identified in Japan in the 1980s and has since been reported primarily in East Asia. It poses a potential biosecurity risk to viticulture industries where it is not present, particularly through the movement of infected propagation material.

What are the primary hosts?

Grapevines (*Vitis* spp.) including wine, table and rootstock varieties, are the primary and only known natural hosts of GINV. There are currently no confirmed major alternative crop hosts, although experimental infections have been demonstrated in laboratory indicator plants.

What are the potential impacts?

GINV can reduce vine vigour and negatively affect fruit quality. Reported impacts include:

- reduced shoot growth and shortened internodes
- smaller berries
- internal berry necrosis and discoloration
- altered sugar and acid balance in fruit.

Infected vines may show reduced productivity and compromised fruit quality, which may affect fresh market value or wine production. As with many grapevine viruses, impacts can vary depending on cultivar, environmental conditions and whether other viruses are also present.

What does it look like?

Symptoms can vary between cultivars and growing conditions. Commonly reported symptoms include:

- chlorotic (yellow) mottling or mosaic patterns on leaves
- ringspot patterns on foliage
- leaf deformation in some varieties

- shortened internodes and reduced vine vigour
- smaller berries
- brown or necrotic tissue inside the berry (internal necrosis), sometimes without obvious external symptoms.

Infected grapevines may not show symptoms and symptom severity may be influenced by the timing of infection and environmental conditions.

What should I look for?

In addition to visible symptoms, growers should:

- compare suspect vines with healthy vines of the same cultivar
- look for uneven growth patterns within vineyard rows
- monitor for reduced vigour or abnormal fruit development
- check for co-occurring mite infestations.

Because some infected vines may show mild or no symptoms, routine monitoring and testing of planting material is important.

If you see anything unusual, call the **Exotic Plant Pest Hotline on 1800 084 881**.

**EXOTIC PLANT
PEST HOTLINE
1800 084 881**

What can it be confused with?

GINV symptoms may resemble those caused by other grapevine viruses such as Grapevine Pinot gris virus, grapevine leafroll-associated viruses, or Grapevine fanleaf virus.

Nutrient deficiencies, herbicide exposure, or environmental stresses can also produce similar symptoms. Visual symptoms alone are not sufficient to confirm GINV, with laboratory testing required for accurate diagnosis.



How does it spread?

GINV spreads primarily through infected propagation material, including cuttings, grafts and rootstocks.

There is evidence that eriophyid mites associated with grapevines may assist in virus transmission within vineyards. As the virus infects the plant systemically, all infected plant tissues can serve as a source of inoculum. There is no known cure for infected vines.

Where is it now?

GINV was first identified in Japan and has since been reported mainly in China and other parts of East Asia. There are currently no widely reported detections in Europe or the Americas. GINV has been detected in several grapevines and rootstocks across Australia's eastern seaboard for the first time.

How can I protect my property?

To reduce the risk of introduction and spread:

- source certified virus-tested planting material from reputable suppliers
- maintain records of vine and propagation material sources
- monitor vineyards regularly for unusual symptoms
- implement mite management where appropriate
- avoid sharing cuttings or propagation material of unknown health status

Good vineyard hygiene and biosecurity practices are essential to prevent introduction.



Visit farmbiosecurity.com.au to download the free **Vineyard Biosecurity Manual** along with other resources to implement practical biosecurity measures.

How should I do if I suspect GINV?

If GINV is suspected, report symptoms immediately to the **Exotic Plant Pest Hotline on 1800 084 881**.

Isolate affected vines where possible and avoid moving plant material from the suspect area. Early detection and containment are critical to preventing spread.

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