

# 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, growth 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, signs and symptoms?

Symptoms can vary between cultivars and growing conditions and reported impacts from overseas and limited local infections may include:

- reduced shoot growth and shortened internodes
- chlorotic (yellow) mottling or mosaic patterns on leaves
- ringspot patterns on foliage
- shortened internodes and reduced vine vigour
- smaller berries
- tightly packed grape bunches on vines
- brown or necrotic tissue inside the berry (internal necrosis), sometimes without obvious external symptoms
- 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.

Most observations of GINV have occurred overseas, local infections may have altered symptomology or be asymptomatic.

## 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.

## 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**



### 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.

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.

### What 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.



Visit [farmbiosecurity.com.au](https://farmbiosecurity.com.au) to download the free **Vineyard Biosecurity Manual** along with other resources to implement practical biosecurity measures.

### Laboratory contacts

Agriculture Victoria: (03) 9032 7515 or [chs.reception@agriculture.vic.gov.au](mailto:chs.reception@agriculture.vic.gov.au)

New South Wales Department of Primary Industries and Regional Development: 1800 675 623 or [laboratory.services@dpiird.nsw.gov.au](mailto:laboratory.services@dpiird.nsw.gov.au)

**DISCLAIMER:** The material in this publication is for general information only and no person should act, or fail to act on the basis of this material without first obtaining professional advice. Plant Health Australia and all persons acting for Plant Health Australia expressly disclaim liability with respect to anything done in reliance on this publication.

