



YARRA VALLEY FACT SHEET SERIES: LEARNINGS FOR YOUR REGION

This fact sheet series was developed by Vinehealth Australia for vineyard owners in South Australia and other states and regions.

Its purpose is to share key learnings from Yarra Valley vineyard owners about phylloxera's impact in the Yarra Valley, which has been significant – financial, logistical and social.

The fact sheet series covers:

- What happened
- Impacts
- Key learnings
- What would the Yarra Valley do differently?
- What is the Yarra Valley doing now?
- What the Yarra Valley wishes it had done

Vinehealth Australia thanks Wine Yarra Valley, vineyard owners in the Yarra Valley, and Agriculture Victoria for their valuable input into this fact sheet series.



**FIRST FOUND
IN 2006**

WHAT HAPPENED

- ▶ Phylloxera was first found in the Yarra Valley in 2006.
- ▶ At the time, there was no register of growers or vineyards, no knowledge of rootstock plantings, unrestricted movement of machinery, staff and contractors, and no tracking of visitors.
- ▶ A Phylloxera Infested Zone (PIZ) was established by Agriculture Victoria around the initial outbreak. The boundary was extended beyond 5km to account for bordering vineyards.
- ▶ The infected vineyard was poisoned, and the vines were grubbed to prevent further spread.
- ▶ The owner also implemented biosecurity measures in accordance with Agriculture Victoria legislation requirements for movement outside of a PIZ, including constructing a heat room to sterilise vineyard equipment, and duplicated labour and machinery to prevent spread to other vineyards.
- ▶ The grubbed vineyard may not have been the initial source of the Yarra Valley infestation. As phylloxera takes years to show visual symptoms, the first vineyard that it was found in did not necessarily introduce phylloxera.
- ▶ The Maroondah Phylloxera Infested Zone (PIZ) was officially gazetted on 1 March 2007; however, biosecurity measures were already in place post-detection.
- ▶ Since phylloxera was first found in the Yarra Valley in 2006 there have been further detections within Yarra Valley vineyards.
- ▶ There have been eight boundary extensions due to phylloxera spread since the initial 2006 declaration, with the latest in 2023.
- ▶ Natural dispersion of phylloxera is slow, and further spread was likely to be due to poor farm-gate biosecurity and human-assisted movement before being discovered.
- ▶ Most detections happen during the growing season as symptoms are more easily identified. Optimal times for surveying for phylloxera are between December and March, but this can vary.
- ▶ Symptoms appear within three years of phylloxera infestation, and



**EIGHT BOUNDARY
EXTENSIONS
SINCE 2006**

vine death occurs within six years, depending on the phylloxera genotype and the vine cultivar.

- ▶ Various methods of phylloxera monitoring were adopted after the initial detection.
- ▶ Additional detections often occur because people are aware and actively looking for infestations.

PHYLLOXERA IN THE YARRA VALLEY

2006	Initial phylloxera detection
2007	Maroondah PIZ boundary extension requested by growers to facilitate movement between vineyards and wineries
2009	Phylloxera detections cause Maroondah PIZ boundary extension
2009	Phylloxera detections cause Maroondah PIZ boundary extension
2014	Phylloxera detections cause Maroondah PIZ boundary extension
2016	Phylloxera detections cause Maroondah PIZ boundary extension
2017	Phylloxera detections cause Maroondah PIZ boundary extension
2017	Phylloxera detections cause Maroondah PIZ boundary extension
2019	Phylloxera detections cause Maroondah PIZ boundary extension
2023	Phylloxera detections cause Maroondah PIZ boundary extension

This fact sheet contains information from industry and government sources as well as opinions of individual growers from the Yarra Valley. It was developed for the South Australian grape and wine industry. Different states will have different rules around phylloxera detection. Your state biosecurity agency will advise on what to do if/when detection occurs.



COMPLIANCE
COSTS ARE
SIGNIFICANT

IMPACTS

- ▶ Phylloxera's impact in the Yarra Valley has been significant – financial, logistical and social.
- ▶ Compliance and farm-gate hygiene costs are significant for businesses inside the PIZ such as:
 - Regulatory requirements for infested properties, including accreditation and permitting.
 - Management requirements for operating within a PIZ, including disinfection of equipment between properties.
 - Biosecurity documentation costs to move grapes, machinery and equipment out of the region.
- ▶ Sending diagnostic samples interstate is now onerous.
- ▶ In season detections have immediate impacts on the movement of grapes, vines, machinery, staff, contractors, visitors and the public.
- ▶ Following a new detection, vineyard owners work with their respective biosecurity agency to determine the infection pathway using forward and backward tracing.
- ▶ From here, new gazettals may be made, other jurisdictions will be notified, and vineyard owners will be provided support and education to help determine appropriate actions including rootstock selection.
- ▶ The cost to replant all own-rooted vines, and the loss of revenue until the vines regain normal production in the fifth year, is estimated at \$1 billion for the Yarra Valley region.
- ▶ Currently, the Maroondah PIZ sits inside the Yarra Valley regional boundary.
- ▶ Agriculture Victoria is responsible for PIZ extensions. Delimitation and extension of a PIZ occurs once a full investigation has taken place. The official gazettal process may therefore be lengthy.
- ▶ Yarra Valley vineyards are now gradually being replanted on rootstocks. Property values for vineyards on own roots may be significantly devalued.
- ▶ Despite this, replanting is not considered a priority as phylloxera spread between properties is slow and replanting costs are high (estimated at \$60,000 to \$100,000 per hectare).
- ▶ Stable wine sales also result in low replanting rates. Many vineyard owners delay replanting or may never replant.
- ▶ For most people, the arrival of phylloxera in the district did not have an immediate and devastating impact. Other impacts like bushfires, drought and markets are more pressing.



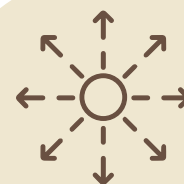
ESTIMATED \$1 BILLION
TO REPLANT
THE REGION



YARRA VALLEY
VINEYARDS GRADUALLY
BEING REPLANTED
ON ROOTSTOCK

- ▶ The Yarra Valley's main goal is to stop the spread of phylloxera to other regions. Regulations are in place to contain the pest.
- ▶ Phylloxera is regulated in Victoria as a containment pest; the movement of host material and equipment out of the PIZ is regulated to stop the movement of phylloxera out of the PIZ.

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PREPARE FOR
SPREAD

KEY LEARNINGS

- ▶ Because phylloxera does not immediately impact vines, it may be some time before phylloxera is discovered on a vineyard. Be prepared.
- ▶ Genotype is important. Find out what genotype is located on the vineyard as this will help determine appropriate rootstocks. Avoid introducing additional genotypes onto your vineyard, which may impact rootstocks in different ways.
- ▶ The region is not doomed. Important old vineyards can survive if biosecurity practices are followed. For example, 1860 vines are still productive in Nagambie.
- ▶ Have biosecurity plans in place.
- ▶ Not all vineyards within the Phylloxera Infested Zone have phylloxera. Good farm-gate biosecurity can slow the spread. For example:
 - Ensure harvesters, other machinery and equipment, including picking bins, are pressure washed to remove soil and plant material and dry heat-treated prior to entering the vineyard.
 - Do not move plant material or soil between vineyards.
- ▶ Establish clear rules for contractors and visitors:
 - Control access to vineyards, ensuring all visitors meet entry requirements, including the use of footbaths for disinfestation of shoes and small hand tools.
 - Ensure the correct footbath procedure is followed: clean boots of all dirt and plant material, then disinfest in either undiluted Dettol or mix a 2% sodium hypochlorite solution (chlorine) in a tub in sufficient volume to cover the top of footwear. If using a 4% sodium hypochlorite product such as White King, mix 1 part water to 1 part product. Soak footwear for at least 60 seconds.
 - Ensure clothing is changed between vineyards.
 - Train all contractors, winemakers, viticulturists and agronomists to follow correct farmgate procedures.
- ▶ Read Vinehealth Australia's Top 10 Farm-Gate Hygiene Activities Fact Sheet for more practical advice.



MAY NOT SHOW UP
FOR YEARS



THERE IS TIME
TO PLAN
DON'T PANIC



WORK TOGETHER
TO CONTROL ITS
SPREAD

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DO NOT POINT FINGERS
AT THE INFESTED
PROPERTY

WHAT WOULD THE YARRA VALLEY DO DIFFERENTLY?

► BEHAVIOUR

- Support the vineyard owner who reports phylloxera first, don't use the blame game.
- Early detection will lead to better outcomes. Encourage all vineyard owners to check their vine roots.
- Encourage and reward self-reporting by vineyards, noting that it is mandatory to report phylloxera.
- Do not fear consumer reaction to phylloxera.
- Be upfront about phylloxera presence when selling vineyards. Know the risks.

► REGION

- Declare the whole Geographical Indication (GI) region a Phylloxera Infested Zone (PIZ) as this will be easier to manage. *Note: Establishment of PIZ boundaries is in accordance with the National Phylloxera Management Protocol.*
- Isolate the entire GI region for inter-region movement of grapes, machinery and equipment. Isolating part of a region will restrict trade without slowing the spread.

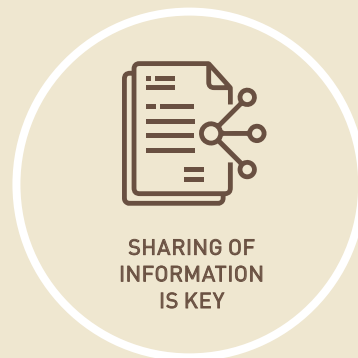
- Ensure a high presence of biosecurity enforcement officers.

► FARM-GATE HYGIENE

- Ensure biosecurity plans are in place.
- If you find phylloxera, contain it with good biosecurity measures.
- Replant on phylloxera-tolerant rootstock.
- Ensure farm-gate signage is rapidly installed.
- Introduce contractor logbooks to trace movements forwards and backwards.
- Ensure that visitation and cellar door events are controlled. Do not allow visitors into vineyards.

► COMMUNICATION

- Broadcast clear messaging about farm-gate hygiene and biosecurity.
- Hold frequent meetings to update growers, winemakers, contractors, suppliers and the public.
- Focus on education of contractors and suppliers and how to best prevent the spread of phylloxera.



► ROOTSTOCKS

- Future proof vine improvement. Have a rootstock matrix readily available, as with grape varieties and clones.
- Run rootstock trials to evaluate suitability to the GI region and suitability for important varieties and wine styles.
- Source cheaper rootstock options to assist adoption.

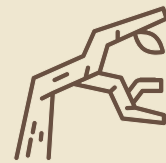
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EDUCATION
IS KEY

WHAT IS THE YARRA VALLEY DOING NOW?

- ▶ Every regional meeting and sub-committee meeting has phylloxera on the agenda. The main goal is education.
- ▶ Yarra Valley Wine is promoting replanting with rootstocks and clean material.
- ▶ Yarra Valley Wine is encouraging all vineyard owners to plant on rootstocks, even outside of the region.
- ▶ Yarra Valley Wine has started rootstock trials to assess suitability to the GI region and sub-regions as every site is different.
- ▶ A clonal assessment and scion program has commenced to identify preferred vine and grape traits.
- ▶ There is an opportunity to revitalise plantings with preferred clones and varieties, with higher productivity.
- ▶ Research is a strong focus in the region. World-leading phylloxera research is being conducted by Agriculture Victoria and co-funded by Wine Australia.
- ▶ Strong farm-gate hygiene and biosecurity practices are in place. As a standard, shoe covers, footbaths for disinfestation, coveralls for clothing, wash down of machinery, tracing of machinery movements, visitor management, hygiene, signage, fences and gates are all part of the regional biosecurity toolkit.
- ▶ Vineyard signs are becoming more prevalent.
- ▶ There is now more equipment, machinery and employees in the region due to less sharing between sites. There has been installation of heat sheds for equipment treatment. Investigation of relocatable/movable heat tunnels is occurring.
- ▶ Growers and winemakers want to know where phylloxera is located to prevent further spread.



REPLANTING WITH
ROOTSTOCKS



FARM-GATE
HYGIENE
IS HIGH



INSTALLING
HEAT SHEDS



Vine roots showing galls produced from phylloxera infestation.

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PLANTED ON
ROOTSTOCKS FROM
THE OUTSET

WHAT THE YARRA VALLEY WISHES IT HAD DONE

- ▶ Planted on rootstocks from the outset. Many of the great regions of the world are planted on rootstocks.
- ▶ Taken biosecurity more seriously before the incursion.
- ▶ Put containment activities into practice quickly.
- ▶ Avoided attaching stigma to infected properties.
- ▶ Communicated more clearly and broadly. Communication is important to ensure growers, wineries, staff, contractors and visitors understand the risk of spread.
- ▶ Encouraged and rewarded growers for reporting phylloxera.
- ▶ Reported bad biosecurity behaviours such as not adhering to farm-gate hygiene practices, and ensured there were consequences in place for bad behaviour.
- ▶ Put in place formal inspectors during harvest for random checks.
- ▶ Discovered how long phylloxera was present before being detected, to assist with tracing.



TAKEN BIOSECURITY
MORE SERIOUSLY



COMMUNICATED
MORE CLEARLY
AND BROADLY

SUSPECT YOU HAVE PHYLLOXERA?

If you suspect your vineyard has phylloxera, you are legally obliged to report it to your [state biosecurity department](#). In South Australia, that's the Department of Primary Industries and Regions (PIRSA) on 1800 255 556. In South Australia, you can also contact Vinehealth Australia on (08) 8273 0550.

Wine Yarra Valley and Vinehealth Australia encourage South Australian vineyard owners who are changing varieties to plant on phylloxera tolerant/resistant rootstocks instead of top grafting.



PUT IN PLACE
FORMAL
INSPECTORS

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