Yarra Valley: the cost of outbreak

In the November-December issue we reported that the financial impact of phylloxera on the Yarra Valley is an estimated $1 billion. In this issue we look at the spread of the pest in the Yarra Valley, the immediate business and social impacts, and the longer-term implications for the region.

As news breaks of more phylloxera detections in the Yarra Valley, the wine region is grappling with how to stop the spread of the deadly insect pest.

"It's clear that despite significant efforts to contain phylloxera in the Yarra Valley, it's not working," says Rob Sutherland, viticulturist at De Bortoli Wines in the Yarra and member of the Yarra Valley Technical Committee. "Phylloxera is ahead of any zone or line on a map."

One of the latest detections, announced by Agriculture Victoria in February, is outside the Maroondah Phylloxera Infested Zone (PIZ) boundary, in the Yarra Junction area. The Maroondah PIZ boundary will likely be extended to take in the new detection and Agriculture Victoria is working with affected wineries and growers to determine any long-term market access impacts.

To examine the impacts of phylloxera on the region, Vinehealth Australia took a group of 35 people working in and around the wine industry to the Yarra in November 2019. For many, it was the first time seeing the tiny but destructive pest live in the field.

Speaking at the Phylloxera Immersion Tour, Rob said phylloxera has caused significant pain in the Yarra – financial, logistical and social. And he said significant pain is still to come, as more growers begin the slow and expensive process of replacing infested vines with new vines grafted onto phylloxera-tolerant rootstocks.

Where did the phylloxera story in the Yarra Valley start?

The first reported case began in April 2006 when vineyard staff noticed several vines yellowing off a little earlier than surrounding vines. Then following a severe frost in spring, the vines struggled to recover.

To narrow down possible causes, an excavator was used to dig alongside the struggling vines to expose the roots. On examination of roots, galls typical of phylloxera feeding were found.

The vineyard was immediately locked down to stop machinery or equipment moving on or off until Agriculture Victoria could examine the site and soil samples.

Following the confirmation of a phylloxera infestation, a 5km quarantine zone was drawn around the property boundary.

The owner of the vineyard poisoned and removed the vines, constructed a heat room to sterilise vineyard equipment, and duplicated labour and machinery to prevent spread to other vineyards.

A dramatic regional reaction also occurred.

A community meeting was organised by the Yarra Valley Wine Grape Association to discuss the detection and what it meant for businesses and the region. It was attended by 250 plus growers and winemakers.

It was a tense and heated meeting, with blame thrown around.

"It was very emotional, and understandably. Because most had realised that it wasn't just a problem for the infested vineyard, it was a big regional problem," Rob said.

"We knew from international experience that phylloxera was here to stay and that it would likely spread. The social fracturing that went on around it was pretty drastic."

Despite traceback being undertaken by DPI Victoria and the vineyard, it has never been confirmed how phylloxera was introduced into the Yarra Valley and the vineyard that first reported it.

The Maroondah Phylloxera Infested Zone (PIZ) was officially gazetted on 1 March 2007.

As more detections have occurred over the years since then, the PIZ boundary has been extended seven times, with another extension likely to come this year due to recent detections. All of these detections are a result of industry self-reporting.

There are 2,500 hectares of vines in the Yarra Valley and more than 1,000 hectares of these have been confirmed as infested with phylloxera.

The Yarra Valley Technical Group of Wine Yarra Valley has estimated that the financial cost to industry of phylloxera in the region is $1 billion, based on replanting nearly the whole region to rootstock and accounting for losses due to production lag.

But many vineyard owners with infested vineyards are yet to replant on phylloxera tolerant rootstock – the Technical Committee estimates that only 14 to 15 percent of vineyards in the Yarra Valley are currently planted on rootstock.

"That's created a problem for the Yarra Valley," Rob said. "Prices are going up now, there's a bit of an upswing in the whole wine industry, due to China. So, nobody wants to pull out their vines and replant.

"It looks like the Yarra Valley is going to miss out on that export wave this time because our tonnes will just slowly decrease as our vines die and we won't have any grapes to sell. And even planting now will have a lag of several years until full production.

"Add to that the high costs of replanting, which is off-putting. The difference between an own-rooted vine and a vine grafted onto tolerant rootstock is about $1.20 compared to between $5-$6.

"You can see the car crash happening."

Rob said an additional barrier to replanting was the general low volume of rootstock material available to the wine industry.

"You have to order grafted vines two years out from when you want them. And then the supply isn't guaranteed," he said. "As an example, we ordered 6,000 vines and when we were ready to plant, the nursery said I've only got 1,200. Bad luck. That's the loss of that vineyard's production for a year."

Compliance costs are also significant for businesses inside the PIZ, especially those that want to move machinery and equipment outside the zone and then back in again. Costs include for example, setting up heat treatment facilities to disinfest machinery and grape bins between vineyards during vintage, and having this treatment certified. This all adds time and cost.

"Dealing with phylloxera has been my working life. It is as bad as it seems," said Franco D'Anna, from Hoddles Creek Vineyard and president of Wine Yarra Valley.

"As an association, our main goal is education about farm-gate hygiene and disinfestation to slow down the spread. And we're working with Agriculture Victoria to try to declare all of the production area of the Yarra Valley as the PIZ, to make life easier for those inside and those outside the current PIZ to trade.

"For the Yarra, we know the horse has bolted. We can't stop it within the Yarra Valley, but as an association, we really want to stop it spreading to other regions."

Vinehealth Australia CEO Inca Lee said there was significant work and investment needed nationally, by both industry and government, to better understand how best to manage phylloxera and to prevent its spread into new regions and states.

"Three critical areas of work are developing an early detection method for phylloxera, effective and practical sterilisation treatments and ensuring access for growers to phylloxera-tolerant rootstocks," Inca said.

Inca said it takes courage for vineyard owners to report pests that could destroy vines, especially given a vineyard owner may not have introduced the pest to the region, but may be the first to detect and report it.

"Prompt identification and reporting are imperative, so that financial, operational and social impacts can be minimised for the benefit of the vineyard, the region and the wine industry," Inca said.

"And the simple message for vineyard owners is this: get serious about farm-gate hygiene. If growers assume that every person and machine coming onto their vineyard is a risk, and they manage those risks accordingly, they'll be in a good position to avoid an outbreak." ♦