

Project proves geofences protect vines

A VINEHEALTH AUSTRALIA pilot project, which saw virtual fences built around vineyards in the Barossa and McLaren Vale regions to track boundary crossings, has demonstrated the power of geofencing as a biosecurity tool.

Project Boundary Rider is the first known of its kind to assess the value proposition of geofencing technology for biosecurity for the Australian wine industry, which contributes \$40.2 billion in gross output annually.

“Knowing who has been in vineyards and when could help us respond to pest and disease incidents and prevent further spread,” said Inca Pearce, Vinehealth Australia CEO.

The Boundary Rider pilot project was undertaken with more than 30 businesses across the Barossa and McLaren Vale wine regions, with geofences active across five months. A Canadian technology company, Be Seen Be Safe, provided the geofencing software for the trial, which was adapted from the poultry industry.

Virtual fences were created around 129 land parcels. GPS technology was used to detect the movement of each person carrying a smartphone with Location Services enabled. A purpose-built app called BRider then logged movement of the individual in or out of each geofence.

Push notification messages notified the owner/manager of the visitor and welcomed the visitor to the vineyard. The visitor movements were collated into an electronic visitor book for each geofence, providing the visitor name, date of visit, timestamp and visit duration.

The total number of boundary crosses for the pilot was 4,194 pairs, with a

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pair being an ‘in’ and ‘out’ of the same geofence by the same visitor.

“While there were some issues with the geofencing software, which is normal for a new technology project evaluating a minimum viable product, we have confidence in geofencing as an important tool to protect South Australia’s vines,” said Suzanne McLoughlin, Vinehealth Australia technical manager, who managed the pilot project.

“Participant feedback was positive about the value geofencing could offer vineyard businesses in the protection and management of significant pest and disease incursions.”

Ben Zander from Wroxtton Grange vineyards in the Barossa was a pilot program participant.

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the app reinforced how often winery representatives or contractors come onto my property without my prior knowledge. This is valuable information for my own biosecurity planning,” Zander said.

Following the successful pilot project, Vinehealth Australia is confident a geofencing system could add value to biosecurity management for the industry, with appropriate wine industry and government support.

“Project Boundary Rider provided us with a unique opportunity to evaluate geofencing technology for the wine industry with a group of engaged growers,” Suzanne said. “We have every confidence in geofencing as a concept to assist our wine and grape industries in their biosecurity efforts.”

The movement of people and vehicles is a key biosecurity risk for vines, as pests and diseases such as phylloxera can be spread on footwear and tyres.

“Phylloxera doesn’t respect vineyard boundaries or state borders. We must ensure our biosecurity is rigorous and we must be looking at new technology to support vineyard owners in their efforts,” Inca said. “We have the opportunity as an industry to engage with technology providers and drive how it can benefit us in enabling better biosecurity systems for our industry.”

The Boundary Rider pilot project was funded by the State Government (PIRSA) and Vinehealth Australia, and was supported by McLaren Vale Grape, Wine and Tourism Association and Barossa Grape and Wine Association. For more information go to www.vinehealth.com.au/projects/project-boundary-rider/.

Correction

AN ARTICLE FROM the June edition ‘Phylloxera management plan’ (Page 47, Issue 641) contained factual errors. It wrongly stated there was a “new Phylloxera Infested Zone”. There is no new Phylloxera Infested Zone (PIZ)

in Victoria or elsewhere in Australia. However, there has been a recent extension to the boundary of the existing Maroondah PIZ in Victoria arising from further detections inside this zone. <http://www.vinehealth.com.au/media/Maroondah-PIZ-extension.pdf>

The article was incorrect when it said the only states unaffected by phylloxera were the Northern Territory and Tasmania. Currently, the states that are phylloxera free (i.e. where phylloxera has not been detected) are South Australia, Western Australia, Northern Territory and Tasmania (they are Phylloxera Exclusion Zones – or PEZs).

The explanation that Queensland has an isolated case, where the incidents of spreading looked likely was also incorrect. Phylloxera has not been

detected in Queensland since 1967. As noted in the book by Wally Boehm *The Phylloxera Fight* (1996), phylloxera was found in Enoggera in 1910, Myrtle town in 1932 and at Banyo in 1967, where a single specimen was found. All these vineyards have since been removed. Queensland currently has a large inland PEZ, with the remainder of the state a Phylloxera Risk Zone (PRZ). There are no Phylloxera Infested Zones in Queensland as suggested and the article was wrong to indicate that phylloxera is likely to spread in Queensland.

Lastly, the image used with the article was incorrectly credited to Vinehealth Australia. While the image appears on the Vinehealth Australia website, it has been used with permission from Agriculture Victoria (Rutherglen).

