PHYLLOXERA AND GRAPE INDUSTRY BOARD OF SOUTH AUSTRALIA

update

Summer 2009 Newsletter

Healthy phylloxera free vineyards for South Australia

Major events in wine growing regions

As the **"Tour Down Under" (TDU)** grows in National and International prominence as a major cycling event, so too does the numbers of spectators who will line the tour course hoping to catch a glimpse of world class cyclists doing what they do best, competing.

Many important wine regions are indeed fortunate to be able to showcase their respective regions through the massive global TV exposure that the TDU offers, as well as cater for the many spectators through cellar doors and food outlets.

The TDU and other major events held in the wine growing regions, have presented the wine industry with an opportunity to be mindful of the importance of managing vineyard hygiene, and in particular, the large numbers of spectators who will set up vantage viewing spots on the tour routes; potentially in close proximity to vines, increasing the risk of pest and disease infestation - in particular from Phylloxera.

To assist TDU organisers with the management of event spectators, the Phylloxera and Grape Industry Board of South Australia has produced a checklist for major event organisers as part of the "At Risk" series, and made it available to the event organisers and local grape grower organisations.

The Board encourages all growers who are uncertain as to whether they are on a tour route, to contact your local Council and seek to discuss your concerns with the TDU event coordinator for your region.

Events such as the Tour Down Under are important for the economic wellbeing of the State and the regions they pass through. Therefore, it would be a State tragedy if the very vines that make these regions tourist icons, were destroyed by a pest such as Phylloxera because vigilance was not maintained.

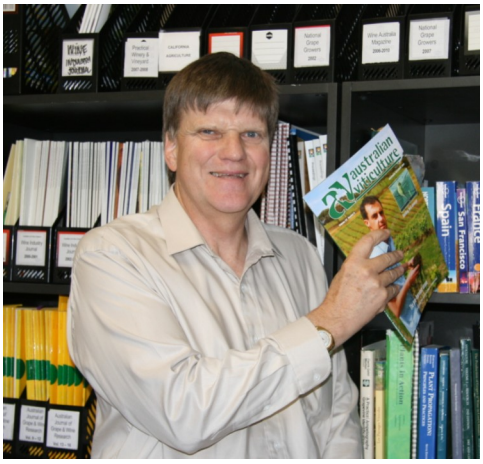
If you require any further information, please contact the Board on 08 8362 0488.

Tour Down Under - Adelaide Australia 17 - 24 January 2010

Matthew Goss rides through Lenswood during stage 2 of the 2009 Tour Down Under from Hahndorf to Stirling on January 21, 2009 in Adelaide, (Photo by James Knowler/Getty Images AsiaPac)

Inside this issue:

From the CEO



CEO—Alan Nankivell

The Growers' meetings in August focused on the latest research into phylloxera with presentations by Dr Kevin Powell, Section Leader of DPI-Victoria and by Dr Tony Jordan, the President of the Yarra Valley Wine Growers Association. They gave very informative presentations on the issues that have confronted the Yarra Valley, as a result of the finding phylloxera in December 2006.

Both presentations have provided the Board with opportunities to revisit the current early detection program, which involves aerial surveillance, followed up with ground truthing of identified sites of low vigour.

The Yarra Valley experience has provided the Board with the opportunity to improve our outbreak management planning and local preparedness. Our goal is to minimise any potential fear and confusion, as was experienced by the Yarra Valley wine industry people when the phylloxera detection was announced. If South Australia did have an outbreak, we would need to manage it professionally.

In late September, the Board held its first Annual General Meeting, with guest speaker Mr Paul Caica, the Minister for Agriculture, Forests and Fisheries. His key message was that the Board had an opportunity to take a national leadership role in the field of best practice for biosecurity, in particular phylloxera management, with the view that what was of benefit for South Australia, was going to be beneficial for all of Australia.

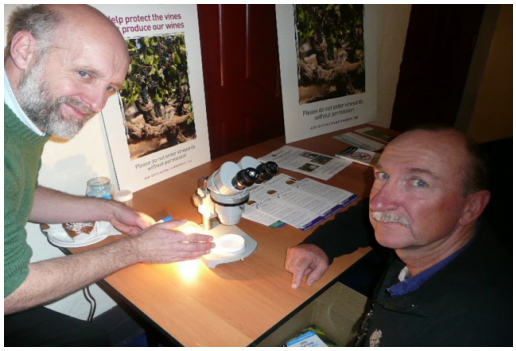
Dr Richard Hamilton (Board Chairman) gave a presentation on other exotic pests and diseases, such as Glassy Winged Sharpshooter and Vine Rust and how fortunate South Australia is to have the Board in place to keep a national focus on these potential risks to a sustainable wine industry into the future, not just in South Australia, but across Australia.

During the year, the Board has implemented a new Regional Committee structure which is incorporated into existing regional groups. To date, this has been of great benefit, and the Board looks to further enhance this structure with a focus on outbreak management planning at the regional level. The regional contacts are listed on page 8.

* * *

On behalf of the Board, I wish to thank you all for your efforts in ensuring that South Australia remains Phylloxera Free in 2010.

Attendees at the Barossa growers' meeting from Henschke Wines, including Prue Henschke, who brought all her workers to the meeting to make sure they were fully informed about phylloxera.



Special guest speaker, Dr Kevin Powell, shows Wayne Newell from Henscke some phylloxera under a micro-scope. (The phylloxera was very dead and preserved in ethanol)

Research Project: Taste testing wine from drought tolerant vines

During the 2008—2009 growing season, grape growers in the Barossa were faced with severe water restrictions as a result of below average rainfall and continuing drought.

A noted characteristic of some American *Vitis* rootstocks is reported drought tolerance (Carbonneau 1985, Nicholas 1997, Dry 2007). The current water restricted environment in the Barossa has intensified the need for greater understanding of rootstock-scion interactions in relation to drought tolerance and the consequences of lack of water on wine quality.

The research project on the effect of water stress on the performance of grafted vines, conducted by Rootstock Project Manager - Cath Cox, aims to determine drought tolerance of rootstocks grown in the Barossa and whether rootstocks can mitigate the effects of water stress whilst continuing to provide quality wine. Drought tolerance of rootstocks is defined as an ability to sustain yield, remain vigorous and sustain a higher leaf water potential (Soar et al. 2006).

The study involves Shiraz clone BVRC30 grafted onto six different rootstocks and its own roots. Each rootstock treatment is divided into irrigated (control) and non-irrigated treatments. Control irrigation for the 2009 season was 0.5ML/ha.

In the first year of the study, results showed that drought tolerance varied considerably between the rootstocks. Rootstock yields were found to be negatively affected by lack of irrigation, irrespective of the rootstock variety.

Leaf water potential varied considerably between the rootstocks, with own roots followed by Ramsey and 1103 Paulsen maintaining the highest leaf water potentials of the non-irrigated rootstocks.

In addition, the Brix levels of the wines were affected negatively by zero irrigation. In the majority of rootstocks, the irrigated treatments had significantly higher Brix levels than the non-irrigated treatments. The highest Brix was recorded for 1103 Paulsen irrigated and the lowest for own roots non-irrigated.

Winemakers from L to R: Steven Frost, Natalie Cleghorn, Stuart Rusted, Nick Bruer, Neil Dodderidge, Tim Smith, Paul Hampton, Teresa Heuzenroeder, Damien Tscharke

Wine quality of each rootstock treatment was assessed by a panel of Barossa winemakers using a standard wine show scoring out of 20. There were 14 wines in all, with three replicates of each wine.

"Wine quality of each rootstock treatment was assessed by a panel of Barossa winemakers using a standard wine show scoring out of 20"

The preliminary results from the wine tasting demonstrate two key points. Firstly: the average wine quality scores between the rootstocks and the own root wines were not significantly different. Secondly: there were no detected differences in wine quality when comparing irrigated and unirrigated treatments, either for rootstocks or for own root wines.

This is a case of where "no news is good news" – ie. the results in this trial indicate that quality is not affected by grafting to a rootstock, or as a result of turning off the irrigation.

It must be noted that the results of the project are preliminary, and final conclusions should not be drawn regarding the performance of the different rootstocks. The work demonstrates the possibility of using grapevine rootstocks in a water challenged environment without adverse effects on final wine quality.

Plant Health Act changes

Implications of the new *Plant Health Act 2009*
The new *Plant Health Act 2009* and associated Regulations came into force on 1 August 2009.

Importer Registration
Section 33 of the Act specifies that "a person must not bring or introduce into the State plants or plant related products* for sale or any other commercial purpose" unless they are registered to do so. Penalties apply!

Provision of Manifests
Transporters of plant or plant related products* into the State for sale or any other commercial purpose must provide a manifest before doing so [Section 14]. Penalties apply!

Import Clearance
Consignments of plants or plant related products must be cleared prior to release within the State. Such clearances can be either via a government inspector or by a business accredited under the new Import Verification Compliance Arrangement (IVCA) [Section 7 and the Plant Quarantine Standard].

If you import or are looking to import grapevine planting material, grapes, must or unfiltered juice into South Australia, these are considered to be **plants or plant related products** and therefore there are implications for you or your business. Significant penalties apply for non-compliance with any of the above requirements!

For further information, please contact the Plant Health Operations Hotline on 1300 666 010 or visit the PIRSA website at:
www.pir.sa.gov.au/biosecurity/planthealth

The new Plant Quarantine Standard, can be downloaded from the Board's website.

* *Plants and plant related products include grapevine planting material (cuttings, rootlings and tissue culture plants), grapes, must and unfiltered juice, etc.*

Want peace of mind? Use the Heat Shed!

As the 2010 vintage is now underway, it is important that South Australian grape growing regions do not have the same experience as growers in the Yarra Valley in 2008, with the further detections of phylloxera.

To ensure that South Australia maintains "Healthy Phylloxera Free Vineyards", we strongly recommend growers adopt best practice to protect vineyards from phylloxera.

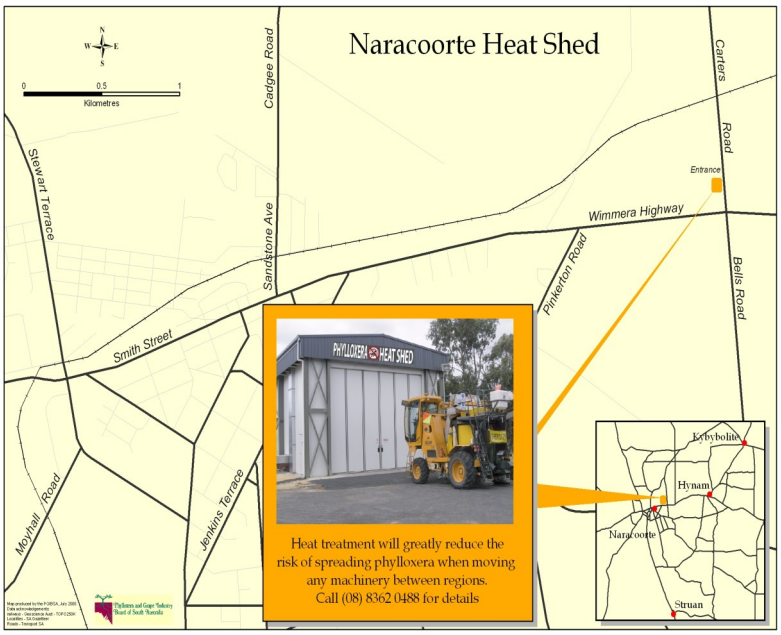
It is important that growers seek clarification from contractors on their previous work location and made sure that the equipment has been cleaned and inspected, to reassure yourself that Biosecurity risks have been minimized before the equipment enters your vineyard. It costs nothing to ask the question and will give you peace of mind.

If you are in any doubt where the equipment has come from, you can require that equipment is treated in the heatshed before proceeding onto your property.

Heat shed bookings
To make a booking for the heat shed, please contact Rachel on 8362 0488 or Tom Davies on 0428 624 939.

You can download a copy of the Vineyard Manager and the Contractor "AT RISK" checklists from the PGIBSA website www.phylloxera.com.au

If you have any question please do not hesitate to contact Alan Nankivell on 0428 260 430.



Rootstock replanting economics

What would it cost you to replant your vineyard on rootstocks?

Other winegrowing countries must wonder why we bother about phylloxera – after all, they have lived with it for over 100 years. "What's the problem? If you get phylloxera you just replant on rootstocks." There may be growers here who also think that if phylloxera ever does come to their region, they'll "just replant on root-stocks". Unfortunately, (or maybe fortunately) it's not that easy. Fortunately, because if growers understand what the costs and implications would be, they will work even harder to protect their vineyards from phylloxera.

Can you afford to replant?

The Board's modelling has shown that, if you replant a 10 hectare block that was all originally planted on own roots over a 7 year period starting 3 years after the initial infestation, the cumulative *loss* of income over the first 12 years is around $75,000, with a maximum loss in one year of $52,900. (This is based on a variety with a yield of 7t/ha and a selling price of $1500 per tonne and management costs of $7000 per hectare.) That means an average loss each year of $6,000! Could you afford to carry that loss over such a long period?

If you had originally planted 50% of your 10 hectare block on root-stock, so you only needed to replant half, your maximum loss in one year would be $14,000 and over the 12 years you would be in the black by $132,000 – even taking into account your higher original planting cost. That's a difference of $200,000 compared with the first scenario. Not a bad return on the extra investment of $30,000 in original planting cost compared with own roots. And of course, if you had originally planted your whole 10 hectares on rootstock, you would not need to replant at all, or suffer any loss in income due to lost production.

"What's the problem? If you get phylloxera you just replant on rootstocks"

Another scenario is where you have a vineyard of premium, precious old vines, low yielding but very valuable.

The modelling shows that, ironically, you would probably be in the best position financially to replant; however, you would certainly not want to, as your replacement vines, even with the best chosen rootstock to suit your conditions and requirements, would be unlikely to make the same quality fruit and command the same price as your original vines.

In our model, the grower in this situation ends up with less than half the annual income they used to have, after the 12 year restructuring period.

What if you were looking for an opportunity to restructure anyway, because you are growing a variety that is not in demand, and barely covering costs as it is. In this case, restructuring is a good option and you can change variety as well as putting in rootstocks. However, the net loss over the restructuring period is higher, because the original profit is lower, and this grower is expected to make a cumulative loss of nearly $150,000, with a maximum loss in one year of $85,000 – because the remaining "old" vines are contributing little to the bottom line while the new vines are yet to come into production. Is this a practical proposition for most growers (or bank managers)?

** Please note - the figures used for the financial modeling are indicative only. For further information, please contact Sandy Hathaway on 8362 0488.*

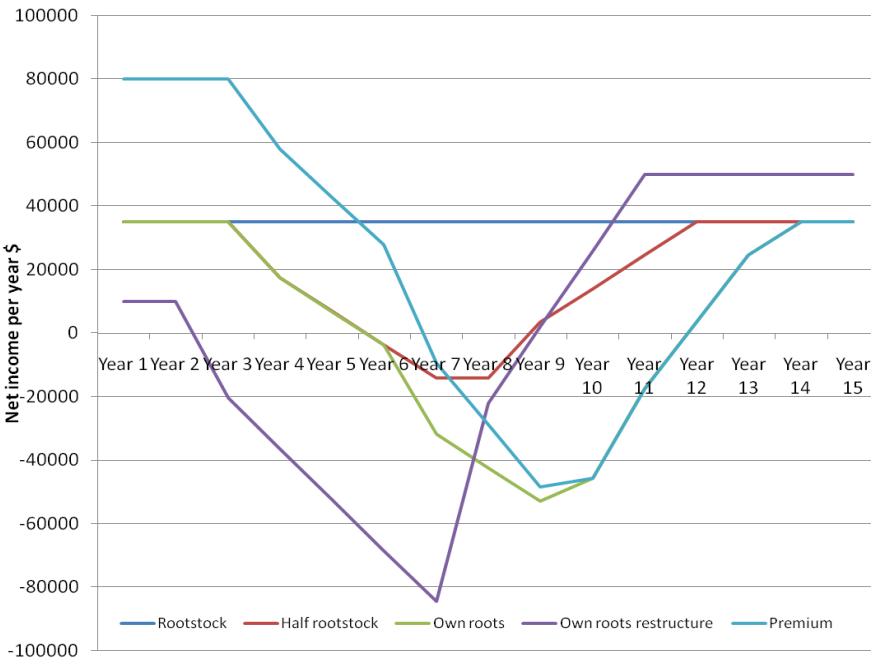


Illustration of planting costs

Utilisation and Pricing Survey 2009

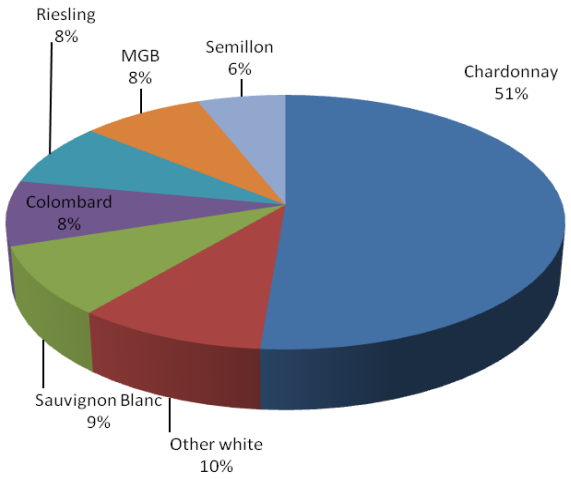
The total crush of South Australian winegrapes in 2009 was 730,904 tonnes. This was 85,000 tonnes (10%) below the 2008 harvest. All regions had a reduced crop compared with 2008 except the Clare Valley and Currency Creek, but most were higher than in 2007.

Most regions had good winter rains, warm dry conditions during spring and a mild early summer, which set the vines up well. The heat wave in late January - early February varied in its impact depending on the timing relative to veraison, condition of the canopy and water availability in each region. Disease pressure was generally low.

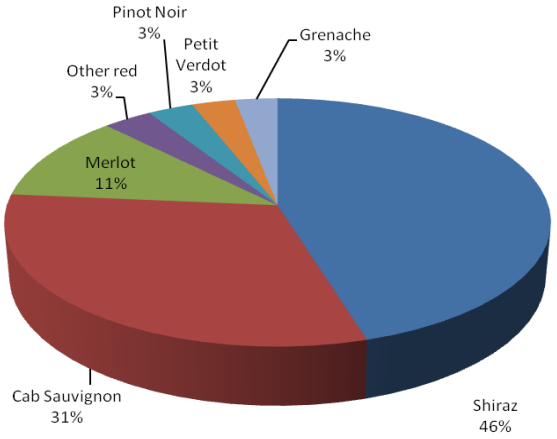
The total estimated purchase value of the crush was $487 million, down by nearly $300 million from last year. The average purchase values for the major varieties in nearly every region decreased, with Chardonnay falling to a record low in many regions.

Among the white varieties, Chardonnay accounted for 51% of the production, more than five times its nearest rival (Sauvignon Blanc), while of the reds, Shiraz accounted for 46%, with Cabernet Sauvignon second at 31% (see pie charts).

Planting data derived from the Board's vineyard register, shows that there were 78,685 hectares planted to vines in South Australia as at 30 April 2009. This represents a net decrease in the total area of around 30 hectares over the preceding 12 months. The most planted new varieties were Shiraz (355 ha), Sauvignon Blanc (140 ha) and Pinot Gris (73 ha) despite indications that there will be an oversupply of Sauvignon Blanc within five years.



Total crush for white winegrape varieties



Total crush for red winegrape varieties

"The most planted new varieties were Shiraz, Sauvignon Blanc and Pinot Gris."

The estimated production for 2010 for South Australia is around 797,000 tonnes – similar to the 2008 harvest. Approximately 800,000 tonnes is either winery grown fruit or already contracted; therefore, there is not expected to be any surplus fruit next year – although the underlying demand (requirement) is only 708,000 tonnes.

The estimated supply of grapes for 2014 is around 880,000 tonnes. This estimate is based on the assumption of a return to 'normal' growing conditions and does not take into account any residual effects of drought and water restrictions or industry restructuring initiatives. This would result in an oversupply of nearly 120,000 tonnes, as winery demand for 2014 as reported in the survey is only 760,000 tonnes.

Considering that the State produced close to 1 million tonnes in 2006, it is possible that the production potential in five years' time could exceed 1 million tonnes which would further exacerbate the oversupply situation. This assumes there is no change in bearing area.

All major white varieties, except Pinot Gris, are likely to be in surplus by 2014 – including Chardonnay (29% surplus) and Sauvignon Blanc (18%).

Among the red varieties, small surpluses are expected in most varieties except Cabernet Sauvignon, but for Pinot Noir there is an expected shortfall of 7,600 tonnes.

The full report can be downloaded from our website: www.phylloxera.com.au

A phylloxera outbreak in McLaren Vale?

In September, at the request of the McLaren Vale Grape Wine and Tourism Association's phylloxera sub-committee, the Board conducted a phylloxera outbreak simulation exercise in McLaren Vale, with over 30 attendees from the local industry.

The purpose of the exercise was to raise awareness among local growers, contractors and industry members about what the impact would be, both in the short term and in the long term, of a phylloxera outbreak in a local vineyard.

The first part of the workshop was a simulation in which everyone was a participant. Most people played themselves, but some were given specific roles to play in order to highlight different points, such as "GLO from winery outside boundary who sources fruit from inside" or "grower inside boundary with fruit processed outside".

The workshop also included individual risk assessments, where participants worked out what their main risks were for getting phylloxera.

Out of the scenario, a number of questions raised were raised, which included:

- Does the grower get compensation because his fruit cannot be harvested?
- Could we eradicate it by pulling out all the infested vines?
- Who will pay for the extra costs of complying with the new restrictions?
- How can we get our fruit processed now that it can't leave the quarantine zone?
- Can we set up a heat shed so I can move my harvesters out of the quarantine zone?
- How do we handle the media?

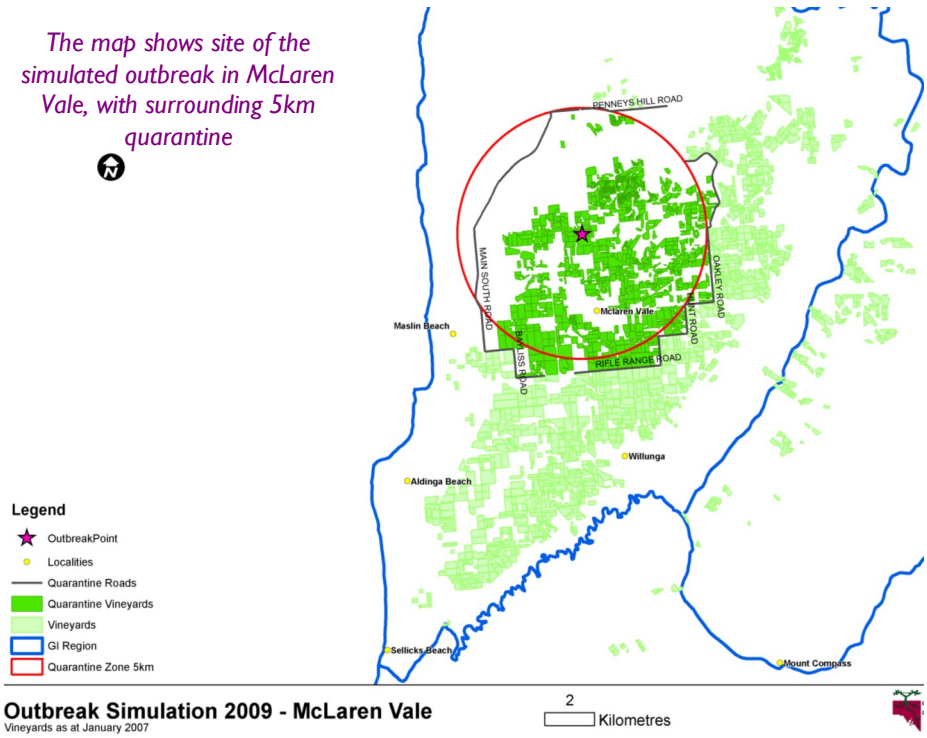
"The main purpose of the exercise was to raise awareness among local growers, contractors and industry members"

The workshop concluded with a second scenario, of a meeting conducted 12 months down the track to discuss long-term options and finalise the quarantine boundary.

The issues raised from the second scenario included:

- When contractors are local and are personal friends, it is hard to confront them and ask them where they have been working prior to coming onto your vineyard.
- A majority of participants had originally indicated that they thought the whole GI region should be declared a quarantine zone. By the end of the exercise, most participants were in favour of keeping the zone as small as possible.
- What is the likely effect on the value of vineyards within the quarantine zones, and how would growers who wanted to exit the industry find a buyer?

The map shows site of the simulated outbreak in McLaren Vale, with surrounding 5km quarantine



Thanks to the phylloxera sub-committee, and in particular Ben Lacey and Jodie Pain for organising the workshop.

The Board will be looking to run more of these simulations in other regions over the next 12 months.

Board members' contact details

Richard Hamilton (Chairman) - Adelaide Hills
0419 861 359

Robin Nettelbeck (Deputy Chair) - Barossa
0412 821 756

David Cartwright - PIRSA
0401 121 913

Peter Dry - Minister's nomination
8313 6600

Peter Balnaves - Limestone Coast
0428 838 702

Jim Caddy - Riverland
0417 844 029

Mark Gilbert - Langhorne Creek
0429 823 597

Alison Phillips - Clare
0425 000 233

Kirsty Waller - Barossa/Riverland
0417 080 042

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Cellar Door Sales

Protecting our heritage

One of the Board's projects this year has been an awareness campaign for cellar door sales.

Sandy Hathaway visited the Barossa Valley, McLaren Vale and Coonawarra; giving presentations and calling in on the cellar door sales outlets in the regions (what a tough job!).

Tourists can potentially spread phylloxera if they walk (or drive) into vineyards in an infested region and then in a South Australian region.

James Yates from Coonawarra

Cellar door sales staff have an important role to play in protecting their winery/vineyard and their region from phylloxera, and in educating tourists who come to their winery. The message is simple: **"Help protect the vines that produce our wines."**

The photo above shows James Yates, who owns Chardonnay Lodge and the Poplars Winery in Coonawarra with wife Anne, holding one of the campaign posters in front of one of the oldest vines in Coonawarra - believed to have been planted over 100 years ago (although in a different location).

New Regional Committee contact details

The Regional Committee groups meet on a regular basis.
Please contact your regional member below for further information.

Region	Member to contact	Phone	Email
Clare Valley	Frank Nicolls	0417 462 146	clare.grapegrowers@gmail.com
Langhorne Creek	Lian Jaensch	8537 3362	info@langhornewine.com.au
Barossa Valley	Elise Heyes	8563 0650	elise@barossa.com
Riverland	Tim Smythe	8582 2952	tim.smythe@riverlandwine.org.au
McLaren Vale	Ben Lacey	0418 415 982	laceyvineyards@bigpond.com
Limestone Coast	Dan Newson	0427 850 022	dnewson@yalumba.com
Adelaide Hills	Clare Hamilton	0439 287 707	clare.hamilton@orlandowines.com