fact sheet № 4

EUTYPA DIEBACK

WHAT IS EUTYPA?

Eutypa dieback is caused by the fungus *Eutypa lata* and is one of the major trunk diseases of grapevines. Eutypa occurs worldwide in wine regions that exceed an annual rainfall of 350mm. In Australia, eutypa was first detected in the 1930s and is now widespread. Grapevines can become infected by eutypa through fresh cuts such as those made during pruning or reworking, causing a significant impact on the productivity and profitability of grape growing. The fungus grows slowly, causing stunted shoots and eventually the demise of affected vines.







STUDY: Chapel Hill Winery – McLaren Vale

YIELD DECLINE CHANGES CHAPEL HILL WINERY'S APPROACH TO EUTYPA



A significant decline in vineyard profitability convinced Chapel Hill's viticulturist Rachel Steer to take drastic action against eutypa dieback in 2012.

The recommended practice of removing part or the entire infected arm had proven unsuccessful in controlling the disease on the winery's 20-year-old Shiraz and Cabernet vineyards. Machine harvesting and the high number of large wounds left by the use of electric snips had also contributed to the winery's exposure to eutypa.

"We got to the point where our yields were declining and our blocks were becoming unprofitable," said Rachel.

"We found the reworking that was recommended at the time wasn't solving the problem, so we looked at the more drastic approach of chain sawing the vines and retraining."

Chapel Hill Winery began with a small, two-row trial in 2012. The new reworking process involves severing the vine 40cm above ground level, or another 10cm below the infection point if still visible, directly followed by the application of Greenseal™ (Tebuconazole) on the open wound. Infected vines are dragged into the row and collected for burning, followed by a final walk-through to uncover any vines left behind.

The next stage involves stringing watershoots from the trunk to the cordon wire and using a tape gun to loosely wrap shoots along the wire; this is done as often as fortnightly. While rare, vines that don't shoot are managed by layering to fill the gaps. Chapel Hill also maintains water shoots in the years leading up to reworking. Ongoing management involves the application of the fungicide Emblem® (fluazinam) at label rates, usually within 24 hours of pruning, or at least within three days.

"We expanded that trial in 2013 and by 2014 we'd decided this reworking process was the direction to head in."

"Our vines were back in full production very quickly and we were able to retain trellis and irrigation infrastructure, which was cost-effective."



"It's kind of strange that the wine we are most known for, The Dead Arm Shiraz, is named after the disease we spend so much time and money trying to eradicate. The truth is we learn to live with eutypa and minimise the casualties."

Chester Osborn

Chief Winemaker & Viticulturist, d'Arenberg

"We're looking at stringing adventitious water shoots on the vine trunks the year before we cut the infected section of the vine. The idea is that it will reduce our time out of production by 12 months."

Bill Potts

Manager, First Pick Viticulture





"It's about ongoing management and doing something before it gets too late."

"There's a lot of work involved in the process. Not only the cutting, but also removing and burning all of the material to ensure the spore load and fruiting structures are removed from the vineyard."

"But I believe if you want to grow quality, uniform fruit, you really have to take eutypa seriously."

Sam Bowman Viticulturist, Bleasdale Vineyards

"You can reduce the impact on your crop yield by staging reworking over a period of time."

"While it is costly and time-consuming, the end product is a revitalised vineyard that's back in full production."

Richard Hamilton

Viticulturist, Hamilton Viticulture



What other research or information is available?

Eutypa Dieback factsheets and other resources http://research.wineaustralia.com/resource_categories/eutypa-dieback/

Agrochemicals registered for use in Australian Viticulture http://www.awri.com.au/industry_support/viticulture/agrochemicals/agrochemical_booklet/

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