

Protocols for vineyard managers to minimise smoke taint from prescribed burns

AGRICULTURE VICTORIA

Information sheet 4 of a series of 5



The optimum time for prescribed burning is in late summer or early autumn, but this coincides with key berry development phases when many grape varieties are most susceptible to the absorption of smoke taint. Prescribed burning in winter or spring will reduce the impact on wine production, but these burns are less effective and more expensive due to damp undergrowth and low ambient temperatures.

The following protocols provide advice to vineyard managers on how to reduce the risk of berries absorbing smoke from prescribed burns and how to minimize smoke taint compounds in wine.

- Advise local and regional DELWP fire management staff of your location, your enterprise, varieties (early and late ripening), anticipated harvest dates, size and contact details. This can be done as an individual or as a regional industry group.
- Conduct a twice-yearly meeting to discuss the current Fire Operations Plan (FOP) for your region (see <http://delwp.vic.gov.au/fire-and-emergencies/managing-bushfire-risk/fire-operations-planning/approved-fire-operations-plan>). FOPs are released in August and cover the next 3 years of burns to take place. Information can be given to fire managers at this time to allow planning to take into account any burns near your location.
- Use the Planned Burn Notification System (PBNS) on the DELWP website (see <http://delwp.vic.gov.au/fire-and-emergencies/planned-burning-notifications-system>) to determine when burns are planned and if necessary to set up automatic notification about timing of specific burns.

- Update local and regional DELWP fire management staff prior to and during harvest to give fire managers the opportunity to burn in other areas or to undertake extra burns in your area due to an early harvest.
- The risk of smoke taint absorption by berries varies during the season depending on variety (see fact sheet No. 2 “Smoke taint risk and management in vineyards”).
- Measure smoke density, timing, duration and composition to determine the risk of berries absorbing smoke taint compounds (see fact sheet No. 3, “Measuring smoke intensity and smoke composition in vineyards”).
- Test grapes for smoke taint compounds at an accredited laboratory, such as the Australian Wine Research Institute. Visit www.awri.com.au for guidelines for assessing vineyards and grapes for smoke taint.
- Minimise the risk during the winemaking process of contamination with smoke taint compounds in leaf and woody tissue by hand harvesting and reducing Matter Other than Grapes (MOG) in the ferment.
- Minimise skin contact time in the fermentation and implement early press cutoff to reduce the extraction of smoke compounds from skins.
- Conduct a mini bench top ferment of smoke affected grapes to produce a small-scale wine when particularly concerned. Send grape and wine sample to the Australian Wine Research Institute for analysis and interpretation.
- Monitor smoke taint compounds in wine during storage. There is evidence that taint may develop slowly during storage in wine made from berries where smoke taint compounds were not detected despite exposure to smoke.

For more information, please contact the Project Leader, DEDJTR Victoria – Centre for Expertise in Smoke Taint Research, Agriculture Research Branch on 136186.

This document is also available in PDF format at www.victoriangovernmentdepartment.vic.gov.au

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