

AWRI

Smoke Samples

Frequently Asked Questions



Where are my samples going?

If you have chosen for your samples to be analysed by The AWRI then they will be sent to Adelaide via transport organized by the DPI Sample Coordination Sites. DPI has organized freezer storage at Adelaide airport for samples to be stored in prior to collection by AWRI. Please note that this only applies to samples sent via the DPI Sample Coordination Sites. For information on the Sample Coordination Sites please contact Ricky James, DPI Vic on 0447 341 373 or email Ricky.James@dpi.vic.gov.au

How much does it cost?

# of samples	1	2	3	4	5	6	7	8
All inclusive cost	\$107.80	\$188.10	\$268.40	\$384.70	\$429.00	\$509.20	\$589.60	\$669.90
	9	10	11	12	13	14	15	16
	\$750.20	\$830.50	\$910.80	\$991.10	\$1,071.40	\$1,151.70	\$1,232.00	\$1,312.30
	17	18	19	20				
	\$1,392.60	\$1,472.90	\$1,553.20	\$1,633.50				

How do I pay for my analysis?

If you are an existing client with AWRI's Analytical Service, you will be invoiced as normal. If you are not an existing client with the Analytical Service you will need to complete a **Prepayment Account Application Form** which is available from the DPI Sample coordination sites. This form will need to be completed and signed before any analysis can be performed.

How long will it take to get my results?

The AWRI has committed to 3 working days turnaround time **from the receipt of samples**. Please be aware that your samples may need to be frozen at the DPI Collection points for 24 hours in order to obtain a Plant Health Certificate.

How will I receive my results?

Results are sent via fax therefore it is important that Analytical Service have your fax number. If you do not have an appropriate fax number please contact Customer Service on (08) 8303 6600 to arrange a suitable delivery method.

What should I do if I have not received my results?

If you have not received your results after the nominated turnaround time please contact Customer Service on (08) 8303 6600.

Who should I contact for results interpretation?

Analytical Service does not provide interpretation of results. For general information on smoke taint and winemaking and viticultural strategies to limit the impact of smoke taint, please contact Con Simos, Winemaking & Extension Services on (08) 8303 6600 or 0448 889 432. Due to potentially large volumes of calls please understand that a message may need to be taken and your call returned.

Some general information about smoke taint

The most effective time to test levels of guaiacol and 4-methyl guaiacol in grapes is as close to harvest date as possible. It should be noted, however, that a finding of low concentrations in grapes at harvest is not a guarantee that any wine made from those grapes will be free from smoke taint. Guaiacol can be released during fermentation as a result of precursors and bound forms. Research is currently underway to characterize these precursors and to develop diagnostic or predictive assays to quantify the potential for release of guaiacol during fermentation, however such assays are not currently available.

For growers and wineries with a number of vineyards that may require sampling and testing, a strategic approach should be adopted. All vineyards do not need to be sampled at the same time. Sample those varieties which ripen the earliest first (e.g. Pinot Noir and Chardonnay). It is important to note that for lighter style varieties such as Pinot Noir, smoke taint characters might be perceived as more pronounced than full bodied styles such as Cabernet Sauvignon and Shiraz. It is important to sample in a procedure that provides the most useful information first. For example for a number of vineyards of the same grape variety, sample the vines considered to be first exposed to smoke. This is likely to provide an idea of the worst case scenario. When sampling it is important to gather as representative sample as possible.

In response to issues associated with the release of bound forms of guaiacol and 4-methylguaiacol during winemaking, a number of winemakers are opting to conduct laboratory-scale ferments in an attempt to better understand the actual impact on the final wine. This could give a good indication of a presence of taint and its likely severity. Smoke taint can impart a back-palate 'excessively drying' character to affected wines and a lingering retro-nasal 'ash' character. Some typical smoke descriptors which you may perceive in the finished wine might be 'burnt,' 'smoked meat,' 'leather,' 'salami' and 'ashtray'. Sensory studies at The AWRI have shown that the sensory threshold in white wine was 6 µg/L and approximately between 15 and 25 µg/L in red wine.

If you choose to proceed with making wine there are some practices that may help to limit the extraction of smoke compounds into the final wine.

- Hand harvest including no leaves
- Bunch press
- Chill the fruit overnight before bunch pressing (white wine)
- Avoid long maceration periods (red wine)
- Yeast and tannin combinations could offset some of the smoke character
- Perform carbon trials at the juice stage and fine as early as possible i.e. pre-fermentation.
- Reverse osmosis has been proven to reduce guaiacol and 4-methyl guaiacol.

To discuss winemaking practices with an experienced winemaker please contact Con Simos, Winemaking & Extension Services on (08) 8303 6600 or 0448 892 432.