

In the Okanagan and across the globe, more vineyards and wineries are leveraging the power of chemical analysis to produce top quality wines. At Supra Research and Development, we have state-of-the-art instrumentation that allow us to provide a comprehensive range of high-end analyses for grapes, juice, and wine.

Supra Research and Development is an ISO 17025 accredited laboratory specializing in:

- Contract Research and Development
- Laboratory and Quality Training
- Analytical and Consulting Services

We currently offer several established methods and can develop custom methods to analyze other compounds as desired. We will work with you to define a scope of target compounds and detection limits suited for your requirements.

Contact Us

Please contact us for further details including sampling protocols, related analyses such as Brettanomyces and cork taint, and development of any other analytical methods:

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Analytical Services for Grapes, Juice and Wine



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ISO 17025 Accredited Laboratory
“Your Quality Solution Provider”



Testing Grapes and Wine for Smoke-Taint Markers

Changing climatic conditions continue to increase wildfire activity each year in regions around the world where wine grapes are grown. From June to August, the danger and severity of fires in Western North American regions are the highest.

Smoke exposed grapes may yield unpleasant smoky aroma and ashy/smoky flavours in wine. Grape growers and winemakers need tools to help them predict if harvests exposed to smoke will produce tainted vintages, potentially damaging a winery's reputation. Supra Research and Development has developed world-leading tests to help growers and winemakers quantify smoke-taint marker compounds in grapes. Such tests are a critical component to help mitigate risk and potentially avoid the expense of producing smoke-tainted wines.

“The period of peak sensitivity for grapes being impacted by smoke-exposure coincides with the onset of full veraison and continues for a couple weeks. Smoke-exposure after this two-week period and leading into harvest can also impact grape quality”

Dr. Matthew Noestheden, COO, Supra Research and Development



The smoke-taint analysis offered by Supra Research and Development includes either the free forms of the volatile phenolic marker compounds, or a combination of the free and sugar-bound forms. We test for the free and bound forms of guaiacol, 4-ethylphenol, 4-ethylguaiacol, 4-methylguaiacol, syringol and cresols.

Because we developed and extensively validated our acid hydrolysis procedure to capture the entirety of the sugar-bound forms, our test provides the best available estimate of the total volatile phenol load in smoke-exposed grapes, juice or wine.

# Samples	Free Forms	Free and Bound Forms
1-10	\$180	\$200
>10	\$162	\$180

Turn-around-time for this test is targeted at 72 hours from sample receipt.

Pesticide Testing

Some pesticides have been banned from use, but many are still allowed and can persist through the entire wine making process. Regular consumption of wines with pesticide levels above allowable thresholds can accumulate in fatty tissues and lead to adverse health effects. A vineyard can control their pesticide management, but it might not be able to prevent propagation of pesticide residue from other cultivars in the vicinity or irrigation water.

Responsible pesticide screening can differentiate your winery from competitors and enhance trust with your consumer base.

Supra Research and Development uses the Thermo Trace 1300/TSQ 9000AEI GC-MS/MS for low detection and accurate quantification of smoke-taint compounds and pesticides

