



BLENDING SUSTAINABILITY

“Much has been discovered about wine and we know we have more to learn. Our goal is to improve the sustainability of our wine industry – blending science with our senses to enhance the quality of the wine we produce.”

The Okanagan Valley has come a long way since Father Pandosy came from France, settled in Kelowna and planted the first grapes more than 150 years ago in the Okanagan Mission area.

Today the Okanagan's wine industry boasts close to 200 wineries, many featuring internationally recognized and award-winning wines, with combined sales of nearly \$182 million a year.

And Cedric Saucier, Associate Professor of Chemistry at UBC's Okanagan campus, hopes his research can only improve the region's fine wines.

“I was drawn to this region because the Okanagan has the perfect combination of soil, slopes and sunshine necessary for producing award-winning wines,” says Saucier, an expert in wine chemistry who hails from the Bordeaux region of France. “Our research will help us build on the economic, environmental and cultural sustainability of this growing industry.”

Saucier and his team of students are looking at nitrogen and how it affects the tannins in wine – the chemical compounds that give wine its colour and taste. Given the Okanagan's dry, sandy soils, finding the right balance of nitrogen is key to producing quality wine grapes. Their research on local wines looks at how tannins ripen in the grape and their evolution during fermentation and ageing in tanks, barrels and bottles. They are working to produce molecular markers to help identify when the sugar, acidity and tannins are perfectly balanced, thus enhancing grape-growing and winemaking.

“We want to understand how the tannins in the seeds and the skins of the grapes ripen as they grow and ferment,” says Saucier. “Our goal is to improve the sustainability of our wine industry – blending science with our senses to enhance the quality of the wine we produce.”

Tannins are important not only for the colour and taste of wine but they also contribute to its health properties.

“More recent research provides evidence of the health benefits of red wine in particular – something to be savoured in addition

to its taste,” says Saucier. “The health benefits also add to the cultural and social sustainability aspect of wine as it has become part of the Okanagan lifestyle – the aroma, the taste and the sense of community that comes with enjoying wine with family, friends and neighbours over a slow meal.”

Saucier has established strong connections to the industry. In addition to his research, he is collaborating with the BC Wine Grape Council and working with grape growers.

“It's an exciting collaboration to help support research and ways that we can collectively improve,” says Saucier. “We are able to bring science to the art of growing wine grapes and winemaking. Creating a good product is what sustainability in the wine industry is all about.”

He has also established the first Enology program at a BC university, helping students understand the process of making wines and how to adapt the science to the local conditions.

Saucier's research is an important part of a larger proposal to develop a wine institute at UBC's Okanagan campus that will focus on policy, research and professional education – an indicator the campus is keen to contribute to the sustainability of a key industry in the region. The institute will help facilitate all aspects of the wine industry and related sectors, from policy and production through distribution, marketing, finance, tourism and economic impact.

“UBC's Okanagan campus strongly believes that our research directions should be relevant to the Okanagan while working at the highest national and international standards,” says Doug Owrap, Deputy Vice Chancellor and Principal of UBC's Okanagan campus. “The proposal to build a winery institute meets both of these objectives. It will serve a growing industry in the Okanagan while forming connections around the world. It will advance research, professional education and student learning at an internationally recognized level.” ●