

# **INTRODUCING WINE SCIENCE IN THE HIGH SCHOOL CHEMISTRY CURRICULUM: A TEACHER'S WORKSHOP**

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The Queensland wine-making industry has improved dramatically over the last 5-10 years and trends point towards the opportunity for further development in the industry with improved education options. The recently developed Queensland College of Wine Tourism (QCWT) is jointly managed by the University of Southern Queensland (USQ) and has been built as Queensland's first specific wine training facility. The QCWT together with the USQ provides a 2-day workshop for teachers who are interested in introducing wine science into high school chemistry curriculum.

Topics in wine science offer an excellent opportunity for high school teachers to present commonly taught chemistry principles that are real to students and the topics can be assimilated into a variety of courses. The workshops are designed to give chemistry teachers exposure to the many techniques involved in wine making and analysis by providing hands-on demonstrations and sample lessons. The topics and demonstrations covered are in response to teachers who have frequently asked if there are investigations that can be carried out using existing school laboratory equipment. Such demonstrations include hydrometry, refractometry, pH, titratable acidity, ethanol concentration using distillation and determination of free and total sulfur dioxide and tannin content using titration. In addition a variety of middle school projects are discussed including how temperature, carbohydrates and pH can affect fermentation.

It was found that high school teachers are interested in incorporating wine science into their curriculum, but feel inadequately prepared to do so. The 2 day workshop for teachers provides a platform for them to share resources, experience hands-on work and it enables them to feel more confident about implementing the content in the school setting.