Managing berry heterogeneity
Project ID: ICHDR11 (PhD)

Uneven ripening and variability in berry size and composition can be detrimental to wine quality. Growers of premium grapes seek to minimise such heterogeneity by selectively thinning slow-developing berries or by sorting postharvest, which are costly and time consuming. Ideally, uniformity would be achieved by vineyard manipulations during ripening. A scoping project in the current ARC Training Centre for Innovative Wine Production points to the benefits of this approach: uniform berry size and composition (aromas, flavours, colour), delayed ripening to yield lower grape sugar (thus wine alcohol) content, and fewer losses due to ‘dropping’ or sorting fruit.

This project will define ways to decrease variability via grapevine cultural practices and to assess the effects of these practices on grape and wine composition and quality. Growers will get the best return from their blocks and consumers will see high quality and better value wines.

We seek a highly motivated PhD candidate with a high level Honours or Masters qualification or equivalent in oenology or a chemistry-related discipline (e.g., grape and wine chemistry, food science or flavour chemistry, natural products, (bio)analytical chemistry, (bio)organic chemistry). The project will be based at the Waite campus of The University of Adelaide. The candidate will develop skills/techniques in design and conduct of research trials, grapevine physiological and hydraulic measurements, instrumental methods of chemical analysis, statistical analysis, and working with research end-users.

References

For additional information please contact:
Associate Professor David Jeffery
The University of Adelaide
https://researchers.adelaide.edu.au/profile/david.jeffery
Email: david.jeffery@adelaide.edu.au
Ph: +61 (0)8 8313 6649