

# How does the fungal floral of the berry surface influence fruit quality?

Project ID: NWGICH2

Species of the fungi *Aspergillus* and *Alternaria* are frequently isolated from plant surfaces, some of these species are associated with the rotting of berry crops at harvest, although the majority are associated with the natural microflora of the berry surface. Species that are responsible for berry rots form unwanted fungal taints and off flavours, and in some cases, mycotoxins harmful for human health. Populations of the other, non-pathogenic species increase on damaged fruit, but the impact these have on berry quality is not known. This project will examine the impact of fungal contamination on grape berries and other small berry fruits, such as blueberries, at harvest. The project will combine skills in plant pathology, microbiology, horticulture and analytical chemistry.

We seek a highly motivated PhD candidate with a high level Honours or Masters qualification or equivalent in one or more of the following areas, plant pathology, microbiology, horticulture or plant chemistry. The project will be based at the Wagga Wagga campus of Charles Sturt University.

## References

Steel, C.C., J.W. Blackman, and L.M. Schmidtke (2013). Grapevine Bunch Rots: Impacts on Wine Composition, Quality, and Potential Procedures for the Removal of Wine Faults. *Journal of Agricultural and Food Chemistry* **61**, 5189-5206. doi: 10.1021/jf400641r.

Steel, C. C. (2018). Grape bunch rots and thresholds for wine contamination. AWRI Webinar, 19<sup>th</sup> January 2018.

<https://www.youtube.com/watch?v=5B-qp4umOBo&feature=youtu.be>

For additional information please contact:

Prof Chris Steel

National Wine & Grape Industry Centre

Charles Sturt University

<https://www.csu.edu.au/nwgic/about-us/our-people/profiles/research-staff/chris-steel>

Email: [csteel@csu.edu.au](mailto:csteel@csu.edu.au)

Ph +61 (0)2 6933 2721