



29th October, 2023

Bryce Ronald William Polley | PhD Candidate
Queensland University of Technology
School of Mathematical Sciences

Address: Level 8 Y Block, 2 George Street,
Brisbane, Queensland, Australia, 4000
Phone: +61 400 310 105
Email: bryce.polley@awri.com.au

Professor Bojie Fu,
Editor-in-Chief
Geography and Sustainability

Dear Professor Bojie Fu,

**Submission of Manuscript for Consideration by
Geography and Sustainability**

We wish to submit a new manuscript entitled "*The influence of resource use on yield versus sale price trade-off in Australian vineyards*" for consideration by Geography and Sustainability.

In this manuscript we explore natural resource use in agricultural wine production, emphasising sustainability in the trade-off between the sale price and quantity of product. We explore the economic and environmental risks induced by producing grapes at greater yields. We find that lower grape sale price is not solely related to the overall expenditure of resources but rather to efficient management, as well as regional and seasonal variations. We use novel, extensive nationwide data from Australia, collected over a decade by Sustainable Winegrowing Australia. We construct and analyse several models of the multifaceted, multi-resource nature of vineyard management.

We believe that this manuscript is appropriate for publication by Geography and Sustainability as it demonstrates the sustainability of different winegrowing production strategies across winegrowing regions in Australia. These results illustrate the relationship between human interaction and the environment as driven by agricultural management strategies and the resources required to achieve the necessary outcomes to maintain economic sustainability using environmental resources. Thank you for your consideration of this manuscript.

A handwritten signature in black ink that reads 'Bryce R.W. Polley'.

Bryce Polley (corresponding author) on behalf of all coauthors: Kate Helmsted, Mardi Longbottom, Madeline Mitchell, Kerrie Mengersen

Corresponding Author, Queensland University of Technology