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**Bryce Ronald William Boyd | 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

**Editorial Board,**  
PLOS ONE

Dear Members of the Editorial Board,

#### **Submission of Manuscript for Consideration by PLOS ONE**

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 PLOS ONE.

In this manuscript, we explore natural resource use in agricultural wine production, emphasizing sustainability in the trade-off between the sale price and quantity of product. We examine 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 climatic variations. We use novel, extensive nationwide data from Australia, collected over a decade by Sustainable Winegrowing Australia. We construct and analyze several models of the multifaceted, multi-resource nature of vineyard management.

The research presented in this paper is part of my PhD program at QUT, where I am investigating sustainability in viticulture. This submission represents the first paper in a series of studies we are conducting. Our aim is to produce several papers using different transects of the data to explore various aspects of this topic comprehensively. We are excited about the potential findings and their implications for sustainability and informing decisions in vineyard management.

Additionally, I would like to inform you that another paper, titled "An Analysis of Underlying Relationships Between Factors Related to Operating Costs and Revenue in Australian Vineyards," is currently under review by the Journal of Agriculture and Food Research. In that paper, we delve deeper into these trends from an economic perspective, highlighting the interconnectedness of the variables and how they impact vineyard revenue and operating costs.

We believe that this manuscript is appropriate for publication by PLOS ONE as it demonstrates the sustainability of different winegrowing production strategies across Australian winegrowing regions. 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. Boyd'.

Bryce Boyd (corresponding author) on behalf of all coauthors: Kate Helmstedt, Mardi Longbottom, Kerrie Mengersen

*Corresponding Author, Queensland University of Technology*