



# RIVERLINK

Linking Horticultural Centres  
in Sunraysia - Riverland

## Media Release

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*For immediate release*

*8 March 2005*

### **Study to investigate sun damage in Chardonnay**

Victoria University Honours student Nerida Crothers is currently looking at the impact of sun-induced browning on Chardonnay grape and wine quality. Based at DPI-Mildura as part of the Riverlink Postgraduate Research Network (Riverlink.PRN), Nerida's work will contribute to the wider understanding of sun damage in grapes and its effects on final wine quality.

Browning in white winegrapes is a recurrent problem in white winemaking, and a source of significant economic loss. Anecdotal evidence suggests that browning in the fruit is most likely caused by oxidation of phenolic compounds in the grape. Furthermore, it is generally thought that this occurs as a result of excessive sun-exposure. Previous research has shown that the phenolic composition of grapes can be influenced by the environmental factors such as temperature and sun exposure. While it is generally assumed that increased bunch exposure results in higher wine quality, over-exposure of fruit is reported to have a negative impact on quality.

While over-exposed Chardonnay grapes are widely considered to have a detrimental effect on wine quality, there is little in the scientific literature that examines these wines either by analytical or sensory methods. A better understanding of the nature and impact of sun-induced browning in white grapes and subsequent wines will enable the Australian wine industry to develop strategies to manage this phenomenon.

Nerida's work compliments the work of previous Riverlink.PRN students in the region. These include Rosie Hannah who compared the accumulation of anthocyanins (the coloured compounds in grapes) in exposed and shaded grapes from around 30 different cultivars; and Marica Njegovan who examined the extractability of anthocyanins from red winegrapes into the wine. It is expected that Nerida will complete the Sunraysia component of her research in May.

Further information on the project is available from Nerida Crothers or Dr Mark Downey at DPI-Mildura on 03 50514500.