



**EFFECT OF THREE LEVELS OF WATER APPLICATION DURING POST-SETTING  
AND POST-VERAISON OVER VEGETATIVE, PRODUCTIVITY AND GRAPE  
QUALITY ON CV. CABERNET SAUVIGNON**

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**ABSTRACT**

An experiment was carried out to evaluate the effect of three levels water application during post setting and post veraison over vegetative growth, productivity and grape quality on a vineyard, located in the Penciahue Valley, Maule Region of Chile ( $35^{\circ} 22' \text{ LS}$ ;  $71^{\circ} 47' \text{ LW}$ ), during the growing season 2000-2001. The cultivar was a 7 year-old Cabernet sauvignon irrigated by drip irrigation and trained in a simple trellis. The irrigation treatments were of 40%, 70% and 100% of the vine evapotranspiration ( $ET_{\text{vine}}$ ) during post setting and post veraison. The results showed that the better combination of quality of grape, yield and vegetative balance was obtained by applying the 40% and 70 % of the  $ET_{\text{vine}}$  during post-setting and post-veraison, respectively. On the contrary, the worst treatment was obtained with a level of 100% of the  $ET_{\text{vine}}$  during the whole period, presenting an excessive vegetative growth and low grape quality. Also, a big reduction of grape yield was observed in vines which received an application of 40 % of the  $ET_{\text{vine}}$  from setting to harvest presented.