

SUMMARY

OBJECTIVES

To determine the effect of applying copper-based fungicides and other desiccant products in pre-harvest on phytosanitary control and wine quality.

METHODS AND RESULTS

During the 2015 and 2016 seasons, experimental wine-growing trials were conducted in commercial vineyards with the Riesling, Sauvignon Blanc, Cabernet Sauvignon and Carmenère grape varieties in different locations of the Rapel and Maule valleys, in order to evaluate the effect of applying copper-based fungicides and other desiccant products in pre-harvest. The impact of the treatment conditions on copper and cation concentration in the must and wine was evaluated, and the physicochemical profile, stability and sensory profile of the wines was also determined.

CONCLUSIONS

The application of desiccant products in pre-harvest only increases the cation concentration in the must, without modifying other qualities or the concentration of those cations in the wine. These applications do not modify the tartaric stability or sensory quality of the wines. For its part, the copper concentration in the wines obtained is always less than 0.5 mg/L.

SIGNIFICANCE OF THE STUDY

The applications of copper-based fungicides and other desiccant products could be used in a complementary or alternative way in the pre-harvest phytosanitary program. These products can be applied in late stages of ripening, at which time the use of synthetic alternatives is not viable due to their shortcomings.