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POSTER COMMUNICATION

Chromatic characteristics of Nermantis and Termantis wines from traditional and withered grapes

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ABSTRACT

The work aims to characterise the colour features of the wines of two new resistant varieties bred at the Edmund Mach Foundation (Italy) and recently inscribed in the Italian National Registry of Vine Varieties.

Twenty-seven experimental wines of Nermantis and twenty-six of Termantis were produced using the same skin-contact fermentation protocol over six consecutive vintages, with grapes harvested according to the technological maturity for each year and plot. The colour characteristics of wines were determined according to CIELab colour space with a D65 standard illuminant, as well as spectrophotometric measurement of absorbance at 420 nm, 520 nm, and 620 nm wavelengths. Analyses were performed during aging, indicatively between 5 and 9 months after harvest, ensuring uniformity for all wines within the same year. Among the CIELab parameters, only lightness (L^*) was found to be different between varieties ($p < 0.05$), being higher in Nermantis, consistent with the lower colour intensity depicted by the spectrophotometric measurements. Although hue (h) was not differentiated, b^* was 5 units higher in Termantis, contributing to an overall $dE^* > 14$ between varieties in favour of the former. Noteworthy, the colour intensity of Termantis was higher than that of its parental variety, Teroldego; however, no h differences were observed for either Nermantis or Termantis with Teroldego.

During three consecutive vintages, grapes of both varieties were withered to 28-29°Brix, consistent with the sugar concentration target for the production of Reboro and Amarone wine styles. L^* , a^* , and h decreased in wines produced from withered grapes for both varieties, whereas colour intensity significantly increased in all instances, maintaining the distinctions between cultivars in traditional wines. The chromatic characteristics of withered wines were compared to those of the principal varieties typically employed in their production. In relation to those of Amarone, Nermantis and Termantis improved every colour parameter of wines. The colour intensity was 3.5-fold and 7-fold higher than that of the Croatina, the richest among those studied, and consistent with the lower L^* . The chromatic characteristics of Rebo wines exhibited similarity to those of Nermantis wines. In

comparison to Termantis, Reboro wines demonstrated a lower colour intensity, whilst no discernible differences in h were observed.