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Comparing valpolicella autochthonous grapes, international varieties, and piwis as sparkling wine bases via sorted napping

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Abstract

The Valpolicella wine region is globally recognized for its red wines. However, evolving consumer preferences are prompting a re-evaluation of traditional cultivars for alternative styles. This study compared the orthonasal and retronasal-gustative sensory profiles of experimental sparkling base wines produced from red and white grape varieties from the Valpolicella production area (Corvina, Corvinone, Rondinella, Oseleta, Garganega). Wines were compared with those produced from traditional sparkling wine varieties (Pinot Noir and Chardonnay) and from two resistant varieties (Charvir and Pinot Regina).

The sensory evaluation was conducted by a panel of 22 experienced wine assessors using the Sorted Napping methodology.

Panelists were instructed to position the samples on a sheet according to the similarities and differences in their orthonasal and retronasal-gustative profiles. After arranging the samples, judges selected descriptive terms from a predefined list of sensory descriptors to characterize the sensory space of the wines. Data collected was analyzed through a multiple factor analysis (MFA), separately for orthonasal and retronasal-gustative profiles.

The first dimension of the MFA performed on the orthonasal profile discriminated Charvir and Pinot Regina, which were associated with vegetal and reductive attributes, from rosé Pinot Noir, characterized by ripe fruit and woody notes. The second dimension was mainly associated with lower aromatic intensity, with some of the Chardonnay samples and Corvinone positioned positively along this axis.

The retronasal-gustative profile clearly separated four samples: Charvir and Corvina were associated with floral notes, whereas one Chardonnay wine and the rosé vinification of Pinot Noir were characterized by woody and ripe fruit attributes. The sensory mapping highlighted the relative proximity among varieties, suggesting that Corvinone may produce sparkling base wines with sensory profiles comparable to Chardonnay.

Keywords

sorted napping, sparkling wine base, sensory mapping, wine sensory profiling