

## Sensory properties of red sparkling wines elaborated by different oenological techniques

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This study evaluated the effect of different oenological techniques on odour activity value (OAV) [1], foam [2] and sensory characteristics [3] of red sparkling wines elaborated with Tempranillo. The techniques studied were, pre-fermentative maceration with dry ice (PM-DI), delestage with partial remove of seed (PM-D), sugar reduction in must by nanofiltration (M-SR), partial dealcoholization by reverse osmosis (M-AR), carbonic maceration (PM-CM) and maceration with pectolytic enzymes (PM-E). The most powerful odorant red sparkling wine was PM-DI, followed by M-SR. PM-E and PM-CM red sparkling wines showed the lowest total OAV. Relationships between instrumental and sensory variables were analysed through Principal Component Analysis. Regarding foam evaluation, PM-DI and M-SR red sparkling wines were correlated with HM and bubble size, and thus related with higher foamability. M-AR and PM-D red sparkling wines showed higher correlations with foam stability. PM-E was closely related with effervescence and foamability while PM-CM red sparkling wine was characterized by better perceptions of foam descriptors. Finally, in the gustatory sensory analysis, PM-DI red sparkling wine showed low levels of acidity and freshness, M-AR was correlated with astringency, and M-SR red sparkling wine was the best-valuated regarding equilibrium, persistence and mouth feel. The PM-E red sparkling wine was correlated with freshness and low bitter, and PM-CM with low persistence.

### References

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