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Presentation

Session 3 Process

Poster

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**Foam characteristics of white, rosé and red sparkling wines elaborated by the champenoise method**

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Contribution Foam is the characteristic that differentiates sparkling wines from still wines, being the first sensory attribute that tasters and consumers perceive and that determines the final quality of sparkling wines [1]. The foaming properties mainly depend on the chemical composition of wines [2-3], and different factors involved in wine composition will have an effect on foam quality. In Spain, the sparkling wine market focuses on the production of white and rosé sparkling wine, with very low production of red sparkling wines. However, this type of wines is elaborated in countries like Australia, South-Africa, Argentina, Italy or Portugal, with a great acceptance by consumers. No studies on the foaming characteristics of red sparkling wines have been found. Therefore, the aim of this work was to evaluate the foam characteristics of these wines, and compare them with that of white and rosé sparkling wines. Different white, rosé and red sparkling wines were elaborated from different Spanish grape varieties and vintages, and with different aging time on lees, following the champenoise method. The foam measurement of these sparkling wines was carried out using the Mosalux equipment, and three parameters were determined: HM (expressed in mm that represents the foamability), HS (expressed in mm that represents the persistence of the foam collar), and TS (expressed in sec that could represent the foam stability time once effervescence has decreased). The grape variety was the main factor that affected the foam characteristics of the sparkling wines, probably due to grape variety has a great influence on the wine composition [4-5]. The HM values of red sparkling wines were lower than those of rosé wines and some of white wines (Godello and Verdejo). Higher differences between sparkling wines were found in HS and TS parameters. Red sparkling wines showed higher HS and TS values than white and rosé sparkling wines elaborated from other grape varieties. In general, white sparkling wines showed lower HS and TS values than the other wines, with the exception of Verdejo wines that showed similar values than Garnacha rosé wines. Acknowledgments The authors thank the INIA and the Ministry of Economy and Competitiveness for financing this study through the projects RTA2009-00029-C02-01 and RTA2012-00092-C02-01 (with FEDER funds). References [1] Buxaderas, S.; López-Tamames, E. (2012). *Adv. Food Nutr. Res.* 66: 1-45 [2] Moreno-Arribas, V.; Pueyo, E.; Nieto, F.J.; Martín-Álvarez, P.J.; Polo, M.C. (2000). *Food Chem.* 70: 309-317 [3] Gallart, M.; López-Tamames, E.; Suberbiola, G.; Buxaderas, S. (2002). *J. Agric. Food Chem.* 50: 7042-7045. [4] Martínez-Lapuente, L.; Guadalupe, Z.; Ayestarán, B.; Ortega-Heras, M.; Pérez-Magariño, S. (2013). *Am. J. Enol. Vitic.* 64: 39-49 [5] Pérez-Magariño, S.; Ortega-Heras, M.; Martínez-Lapuente, L.; Guadalupe, Z.; Ayestarán, B. (2013). *Eur. Food Res. Technol.* 236: 827-841

Author	Email	Institution
* Silvia Pérez-Magariño	PerMagSi@itacyl.es	Itacyl
Belén Ayestarán	belen.ayestaran@unirioja.es	ICVV
Carlos González-Huerta	gonhueca@itacyl.es	Itacyl
Leticia Martínez-Lapuente	leticia.rioja@hotmail.com	ICVV
Marta Bueno-Herrera	bueherma@itacyl.es	Itacyl
Miriam González-Lázaro	miriam_gonzalez89@hotmail.com	ICVV
Pedro López de la Cuesta	lopcuepe@itacyl.es	Itacyl
Zenaida Guadalupe	zenaida.guadalupe@unirioja.es	ICVV