

Supplementary Material

Characterization of musts, wines, and sparkling wines based on their elemental composition determined by ICP-OES and ICP-MS

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Table S1. Main geographical and agricultural characteristics of vineyards of Xarel·lo samples.

Vineyard classification according to quality	A	B	C	D
Reference/Name	AK627/La Fideuera	AB264/Peixo-Montagull	IB657/Pla-Les Cabanyes	AU095/Mateu-Refugi vell
Main characteristics	Homogeneous vineyard, good transparency of vegetation (40%), grapes do not touch between vines, breezy and slightly shaded, 15 sprouts/m, length of 80-100 cm	Homogeneous vineyard, with good transparency of vegetation, grapes are breezy and slightly shaded, 15 sprouts/m, length of 80-100 cm.	Homogeneous vineyard, with good transparency of vegetation, grapes are breezy and slightly shaded, some vines touch each other but they are not packed, 20 sprouts/m, length of 110 cm	No homogeneous vineyard with an excess of vegetation, grapes hidden from the Sun, no breezy, over 20 sprouts/m, length over 150 cm
Type of soil	Calcareous/clayey	Calcareous/clayey	Calcareous/clayey	Calcareous/clayey
Agricultural practices	Ecological faming	Ecological faming	Conventional faming	Ecological faming
Geographical location	Olèrdola (Penedès)	Subirats (Penedès)	Les cabanyes (Penedès)	Santa Margarida i els Monjos (Penedès)
Climate	Mediterranean	Mediterranean	Mediterranean	Mediterranean
Vineyard altitude	210 m	225 m	270 m	180 m
Conduction system	Arbor – <i>Cordó Royat</i>	Traditional vessel	Arbor – <i>Cordó Royat</i>	Arbor – <i>Cordó Royat</i>
Plantation year	1993	1965	2003	1990
Yield obtained in the 2019 grape harvest	8.000 kg/ha	10.000 kg/ha	12.000 kg/ha	12.000 kg/ha

Table S2. Main geographical and agricultural characteristics of vineyards of Pinot Noir samples.

Vineyard classification according to quality	A	B	C	D
Reference/Name	DOC-PN-15/La Pleta	SAL-PN-F3	SAL-PN-84	VAL-PN-SAIRA
Main characteristics	Very balanced old vineyard, where all is done manually is removing the excess of sprouts and grapes	Young vine in which during the spring the excess of sprouts and grapes are removed	Young vine in which during the spring the excess of sprouts are removed to homogenize the remaining grapes	Old vine but very heterogeneous, in which only the necessary actions to guarantee the health of the grapes are carried out
Type of soil	Frank and granular texture, consisting of lutites between 1-2 m	Limestone soil, frank and clayey, with large calcareous rocks on the surface and lutites between 1-2 m	Limestone soil, frank and clayey, with large calcareous rocks on the surface and lutites between 1-2 m	Frank and granular texture, consisting of lutites between 1-2 m
Agricultural practices	Conversion	Ecological	Integrated production	Integrated production
Geographical location	Raimat	Raimat	Raimat	Raimat
Climate	Continental, semiarid	Continental, semiarid	Continental, semiarid	Continental, semiarid
Vineyard altitude	280 m	280 m	280 m	315 m
Conduction system	<i>Royat Doble</i>	<i>Royat Doble</i>	<i>Royat Doble</i>	<i>Royat Doble</i>
Plantation year	1991	2010	2014	1999
Yield obtained in the 2019 grape harvest	5.600 kg/ha	7.800 kg/ha	12.520 kg/ha	6.620 kg/ha