

Maia Meladze¹, Londa Mamasakhlisashvili², Levan Ujmajuridze^{2,3}, Daniele Migliaro⁴, Corrado Domanda⁵, Laura Rustioni^{5*}

Neglected cultivars for the Mtskheta-Mtianeti region (East Georgia): ampelography, phenology, and agro-climatology

Affiliations

¹Institute of Hydrometeorology of the Georgian Technical University, Tbilisi, Georgia

²Scientific Research Center of Agriculture, Tbilisi, Georgia

³Faculty of Viticulture and Winemaking, Caucasus International University, Tbilisi, Georgia

⁴CREA – Research Centre for Viticulture and Enology, Conegliano, Italy

⁵Dipartimento di Scienze e Tecnologie Biologiche ed Ambientali, Università del Salento, Lecce, Italy

Correspondence

Maia Meladze: m.meladze@gtu.ge, Londa Mamasakhlisashvili: londa.mamasakhlisashvili@gmail.com, Levan Ujmajuridze: levan.ujmajuridze@srca.gov.ge, Daniele Migliaro: daniele.migliaro@crea.gov.it, Corrado Domanda: corrado.domanda@unisalento.it, Laura Rustioni*: laura.rustioni@unisalento.it

Supplementary material



Figure S11: Mtskheta-Mtianeti region map

Table S12: Change of agroclimatic characteristics in dry subtropical, mountainous and high-mountain zones of the region Mtskheta Mtianeti according to the periods 1948-1982 and 1983-2017

Zone	Periods (1948-1982, 1983-2017)	Data of transition air temperature >10°C	Data of transition air temperature <10°C	Duration of the vegetation (days)	Sun of active temperatures (>10°C)	Sun of precipitations (mm), IV-X	HTC (IV-X)	Sun of active temperatures (>10°C), VI-VIII	Sun of precipitations (mm), VI-VIII	HTC (VI-VIII)
Dry sub-tropical	Period (A) 1948-1982	April 11 th	October 25 th	197	3477	416	1.2	1948	185	1.0
	Period (B) 1983-2017	April 8 th	October 27 th	202	3607	391	1.1	2013	171	0.8
Mountain	Period (A) 1948-1982	April 20 th	October 20 th	183	3049	522	1.7	1751	229	1.3
	Period (B) 1983-2017	April 15 th	October 21 st	189	3141	495	1.6	1832	198	1.0
High mountain	Period (A) 1948-1982	May 22 nd	September 18 th	119	1571	516	3.2	1271	363	2.9
	Period (B) 1983-2017	May 21 st	September 25 th	127	1684	435	2.9	1305	348	2.5



(c) The author(s) 2023

This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/deed.en>).

Table S13: Nuclear SSR profiles of the 4 varieties analyzed. Pinot and Chardonnay SSR profiles are added as reference varieties

Variety name	VVS2	VVMD5	VVMD7	VVMD25	VVMD27	VVMD28	VVMD32	VrZAG62	VrZAG79	VMC6E1	VMC6G1	VMCNG4B9												
Tabidziseuli	141	145	236	236	249	253	241	267	176	180	236	236	262	272	200	292	237	255	141	143	177	181	158	174
Daisi	133	145	238	242	239	239	239	239	190	195	235	244	244	272	188	188	243	259	143	167	193	197	158	158
Qvelouri	141	141	234	236	239	253	249	267	180	180	234	236	250	252	188	200	249	251	141	165	177	181	172	172
Bazaleturi Colikouri	143	145	228	234	249	253	239	255	180	186	236	258	250	262	194	196	239	251	121	141	177	177	154	172
Pinot (ref.)	137	151	230	240	239	243	239	249	186	190	218	236	240	272	188	194	239	245	151	165	169	177	158	162
Chardonnay (ref.)	137	143	236	240	239	243	239	255	182	190	218	228	240	272	188	196	243	245	143	151	177	197	158	158

Allele lengths are expressed in base pairs. Allele lengths for VVS2, VVMD5, VVMD7, VVMD25, VVMD27, VVMD28, VVMD32, VrZAG62, and VrZAG79 are provided using the VVC allele sizing.