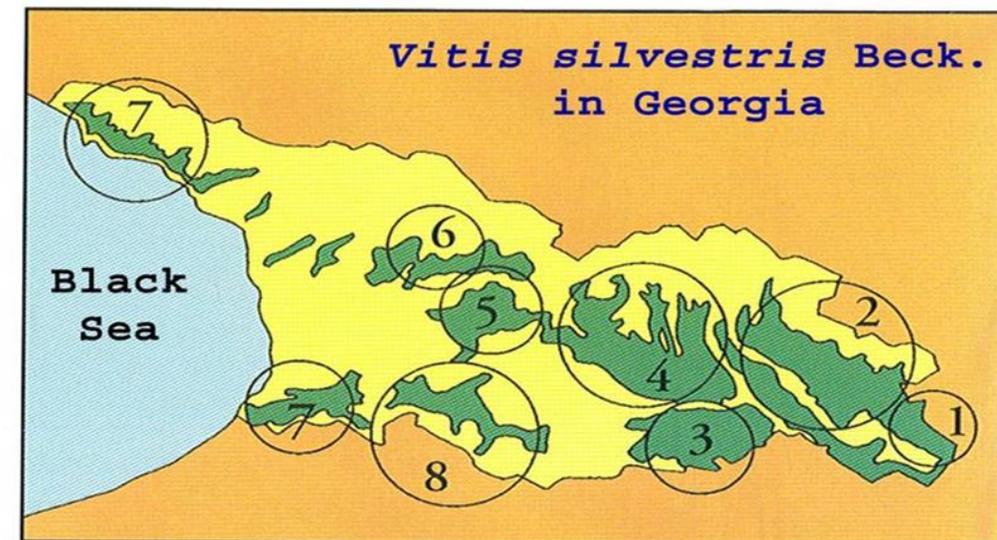




Wild grapevine *Vitis vinifera ssp. Sylvestris* Gmel. Is a typical representative of the flora of the Caucasus and Georgia among It. This plant is a lodger of almost all woody regions, most part in forests on lowlands and rivers' banks up to 1200m above sea level in Georgia. It grows sporadically on the territory of the country.



History of wild grapevine in Georgia should be separated in two periods. 1) since the earliest period until the second part of 19 centuries, when there was the best conditions for growing of this plant here. 2) Since 60 of 19 century until today when fungal diseases and Phylloxera and plus expanded human activities, destroyed spontaneous development of wild grapevine populations.



History

The first researcher who started investigation and made systematization of wild grapevine of Georgia was Fr. A. Kollenati (1846). Revaz Ramishvili investigated wildy growing grapevine of Georgia in the second half of 20 century. He has organized research expeditions almost in all regions of the country and collected about 400 genotypes in a field collection. Based on investigation of the XX century a map for spreading of wild grapevine in Georgia in its 8 main centers of concentration has been singled out



Ninotsminda 11

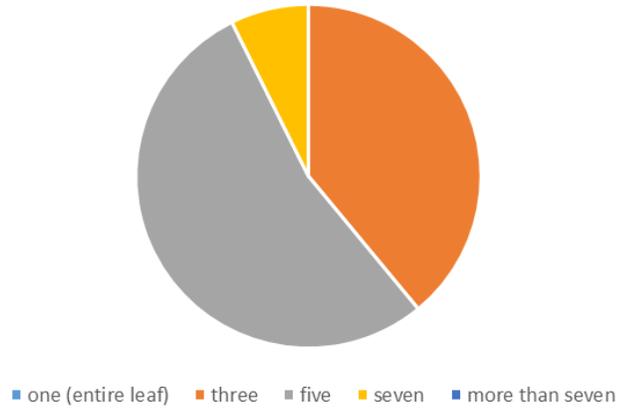
Research



Meneso 02

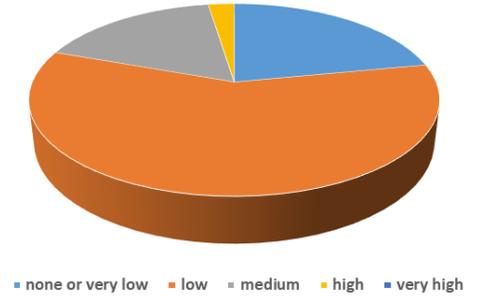
- The aim of the research was studying of the wild grapevine accessions of Georgia origin in the Jighaura field collection by using methods of ampelography, biochemistry, and agronomy with specific tasks.
- It was included 41 accessions of wild grapevine in this study. These accessions represent 20 populations from Eastern and Western parts of Georgia. The accessions were discovered in Georgia during expedition of 2003 - 2013.
- Based on discovered plants it was established the first set of grafted field collection in Jighaura in 2014. The genotypes included in this study were selected from this collection. Each accession in the collection is represented with 1-6 plants.

OIV068 Mature leaf: number of lobes



The summarized ampelographic description of the studied accessions of wild grapevine is provided. It demonstrated that 8 descriptors are homogenous and other are heterogeneous

OIV084 Mature leaf: density of prostrate hairs between main veins on lower side of blade

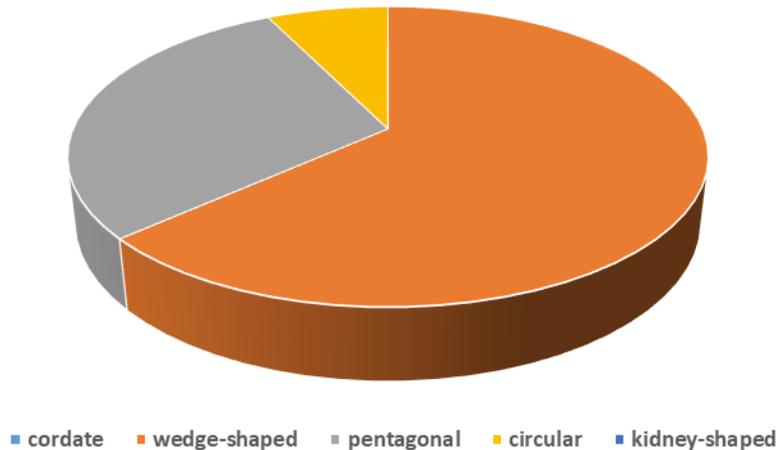


The shape of the leaf is mostly wedge-shaped, rarely pentagonal. The leaf is five- or three-lobed

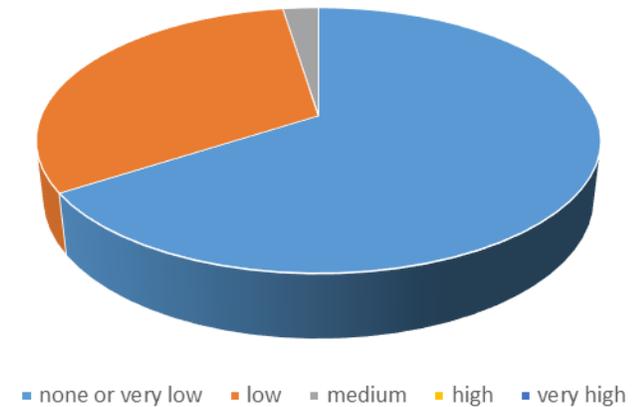
Ampelography

The underside of the leaf mostly has little or no hair between main veins.

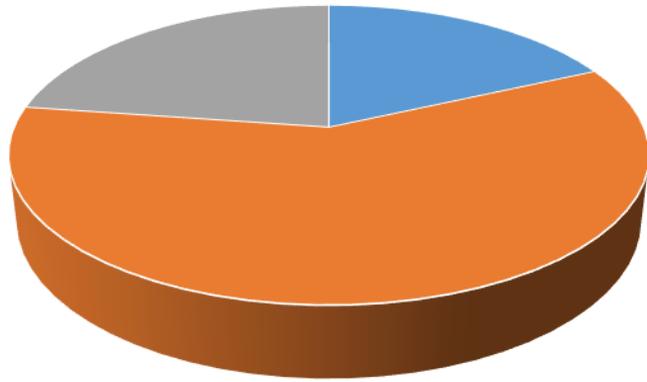
OIV067 Mature leaf: shape of blade



OIV087 Mature leaf: density of erect hairs on main veins on lower side of blade



OIV204 Bunch: density



■ very loose ■ loose ■ medium ■ dense ■ very dense

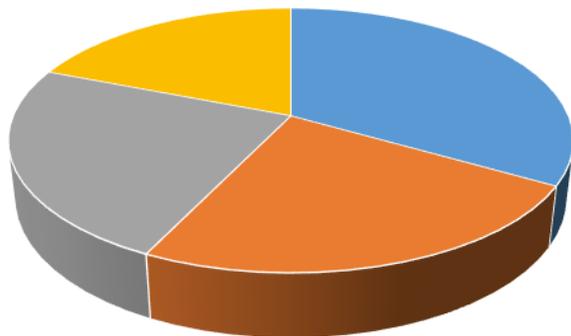
Bunch to density, we find 4 very loose, 13 loose, and 5 medium.



Ampelography

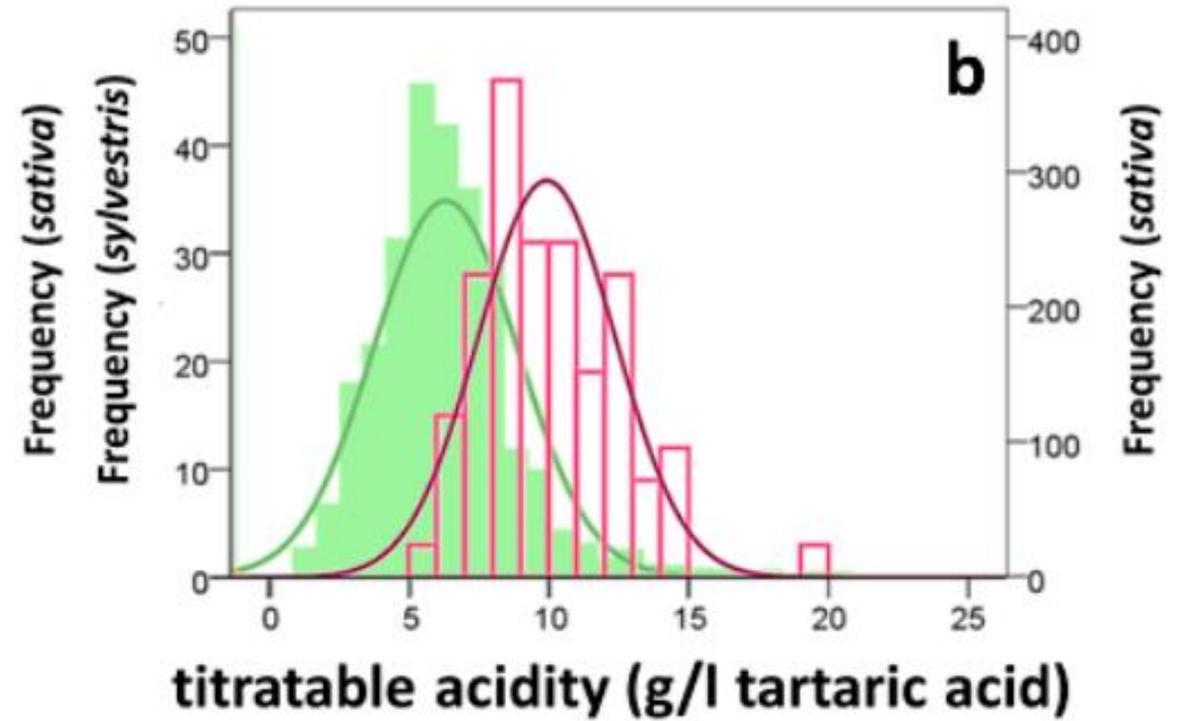
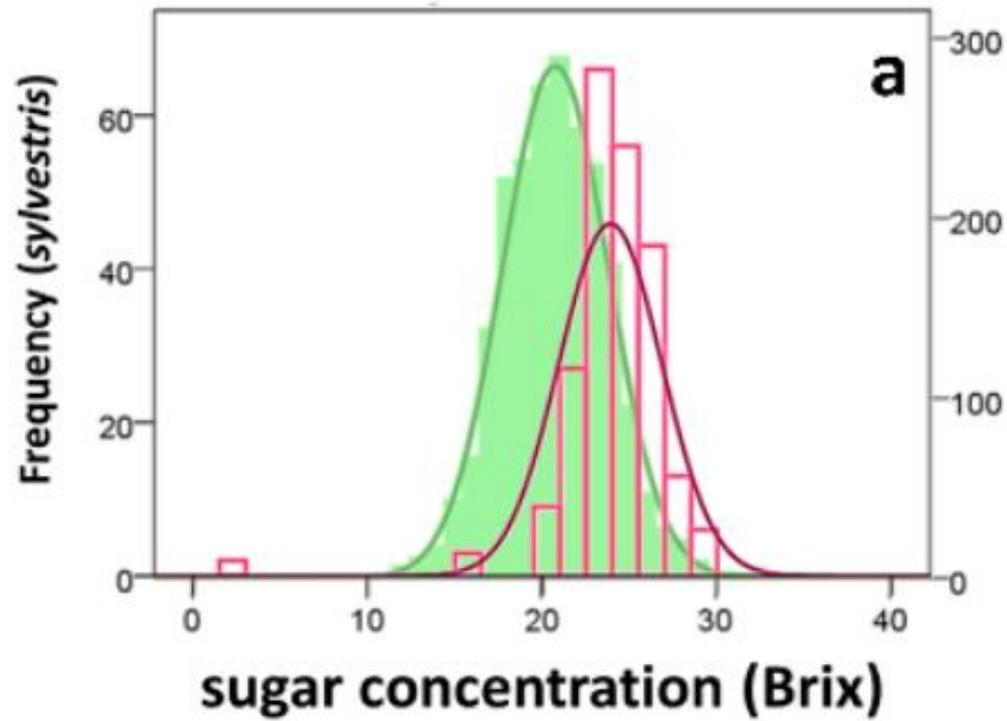
Intensity of flesh anthocyanin coloration in Berry were:
Anthocyanin coloration is absent or very weak (3 samples), weak (6), medium (9) and strong

OIV231 Berry: intensity of flesh anthocyanin coloration



■ none or very weak ■ weak ■ medium ■ strong ■ very strong

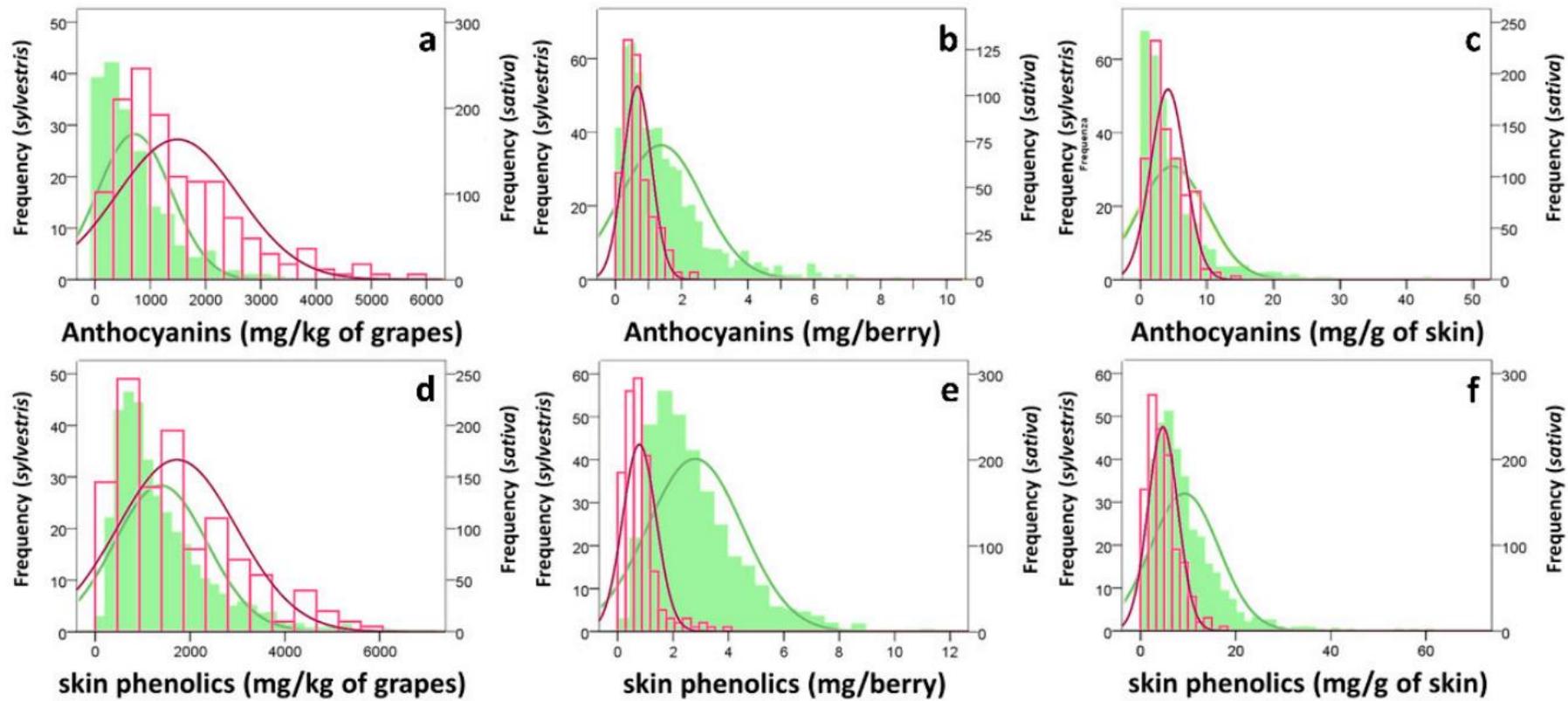




Comparison between the Grape Technological Characteristics of *Vitis vinifera* Subsp. *sylvestris* and Subsp. *Sativa*. D. Maghradz et al. 2021

Eno-carpology

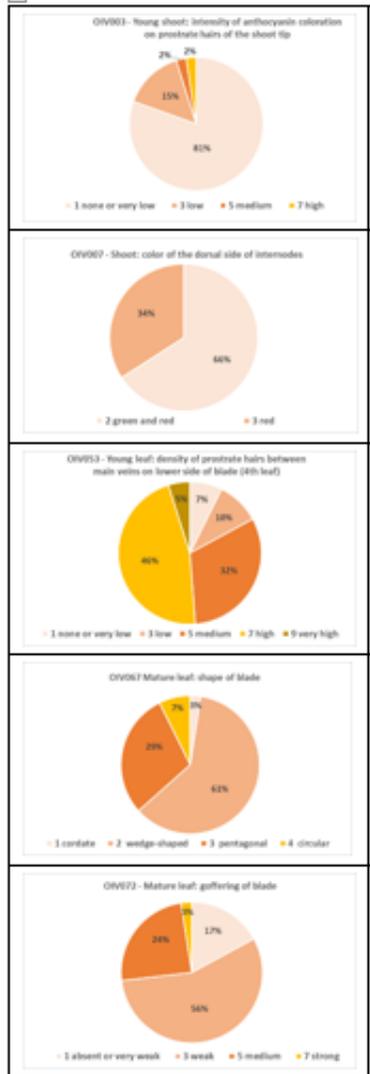
The number of seeds per berry was similar among the subspecies, with a slightly larger number in the *subsp. Sylvestris*. Nevertheless, despite the seed weight being generally lower in *subsp. sylvestris*, the contribution of seed to the total berry weight was higher in the *subsp. sylvestris* due to the smaller berries with less pulp. The *Vitis vinifera subsp. sylvestris* musts were more concentrated than *Vitis vinifera subsp. sativa* in both sugars and acids.



Comparison between the Grape Technological Characteristics of *Vitis vinifera* Subsp. *sylvestris* and Subsp. *Sativa*. D. Maghradz et al. 2021

The grapes of *Vitis vinifera* subsp. *sylvestris* had a higher concentration in anthocyanins than *Vitis vinifera* subsp. *sativa*. However, this is mainly due to the carpological features of the grapes, with higher proportions of pigmented skins in subsp. *sylvestris*. In fact, the accumulation of pigments in the skin tissue was very similar among the two subspecies and, thus, a small *sylvestris* berry had a lower amount of anthocyanins. The grapes of *Vitis vinifera* subsp. *sylvestris* had a higher concentration in seed phenolics than *Vitis vinifera* subsp. *sativa*, due to the higher seed percentage of the. Nevertheless, the higher skin percentage of the berry weight ensured a slightly higher phenolic concentration in *sylvestris* grapes.

Investigation of Wild grapevine *V. vinifera ssp sylvestris* Gmel.



Delisi 06

Protoplast information

Number in collection	GE0008-W2014-009
Color of berry	Black
Taxonomy	<i>Vitis vinifera ssp. sylvestris</i> (C. C. Gmel.) Hegl
Country	Georgia

Synonymy, meaning of name
Delisi is a name of locality close to Tbilisi, where the plant was discovered.

Historical facts and distribution
The plant was discovered in the river basin of Sidivari (Kura) - in 2008. It is grown on the South - directed slope. Recently the plant is preserved in Ighvira collection.

Basic ampelographic characters

Young shoot

QV001	Opening of the shoot tip	3	Fully open
QV003	Intensity of anthocyanin coloration on prostrate hairs of the shoot tip	1	none or very low
QV004	Density of prostrate hairs on the shoot tip	5	medium

Shoot

QV006	Attitude (before tying)	3	semi-erect
QV007	Color of the dorsal side of internodes	2	green and red
QV008	Color of the ventral side of internodes	1	green
QV016	Number of consecutive tendrils	1	2 or less
QV195	Fertility of basal buds (buds 1-3)	9	very high

Young (4th) leaf

QV051	Color of upper side of blade	1	green
QV053	Density of prostrate hairs between main veins on lower side of blade	7	high

Mature leaf

QV067	Shape of blade	3	pentagonal
QV068	Number of lobes	3	five
QV070	Area of anthocyanin coloration of main veins on upper side of blade	3	up to the first bifurcation
QV072	Guffering of blade	1	absent or very weak
QV074	Profile of blade in cross section	2	V-shaped
QV075	Bifurcating of upper side of blade	3	weak
QV076	Shape of teeth	3	both sides convex
QV079	Degree of opening / overlapping of petiole scars	3	half open
QV080	Shape of base of petiole scars	1	V-shaped
QV081-1	Teeth in the petiole scars	1	absent
QV081-2	Petiole scars how limited by veins	1	not limited
QV083-2	Teeth in the upper lateral sinuses	9	present
QV084	Density of prostrate hairs between main veins on lower side of blade	3	low
QV087	Density of erect hairs on main veins on lower side of blade	1	none or very low
QV094	Depth of upper lateral sinuses	3	shallow

Delisi 06

Flower

QV151	Sensal organs	4	inflated stamens and fully developed gynoecium
-------	---------------	---	--

Woody shoot

QV103	Main color	2	brownish
-------	------------	---	----------

Bunch

QV202	Length (pedicel excluded)	1	very short
QV203	Width	1	very narrow
QV204	Density	1	very loose
QV206	Length of pedicels of primary bunch	3	short / medium
QV208	Shape	1	cylindrical
QV209	Number of wings of the primary bunch	2	1 - 2 wings

Berry

QV220	Length	3	short
QV221	Width	3	narrow
QV223	Shape	2	globose
QV225	Color of skin	6	blue black
QV231	Intensity of flesh anthocyanin coloration	5	medium
QV235	Firmness of flesh	2	slightly firm
QV256	Particular flavor	1	none
QV241	Formation of seeds	3	complete

Elements of productivity

QV302	Single bunch weight	1	very low
QV303	Single berry weight	1	very low
QV304	Marionette	3	very low

Characteristics of grape juice

QV505	Sugar content of must	9	very high
QV506	Total acidity of must	5	medium
QV508	Must specific pH	7	high

Degree of resistance to Phloxera

QV432-1	Leaf degree of resistance to Phloxera (leaf disc test)	3	medium
---------	--	---	--------

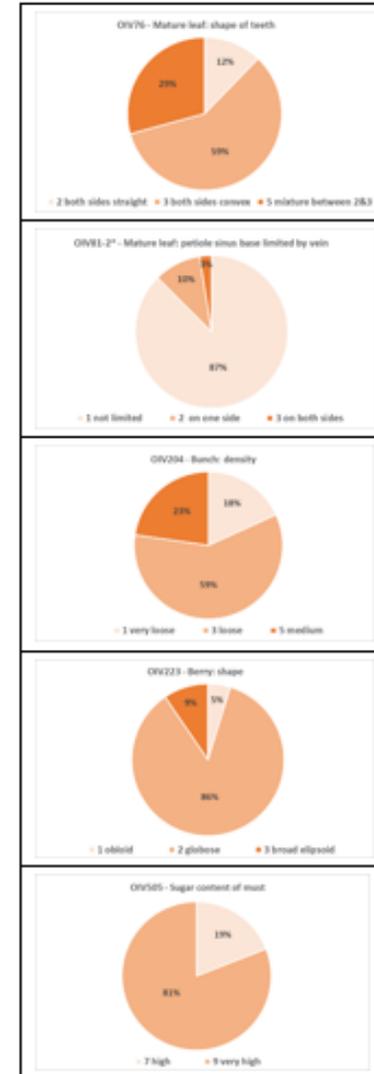
Biochemical characteristics (mg / kg in grapes)

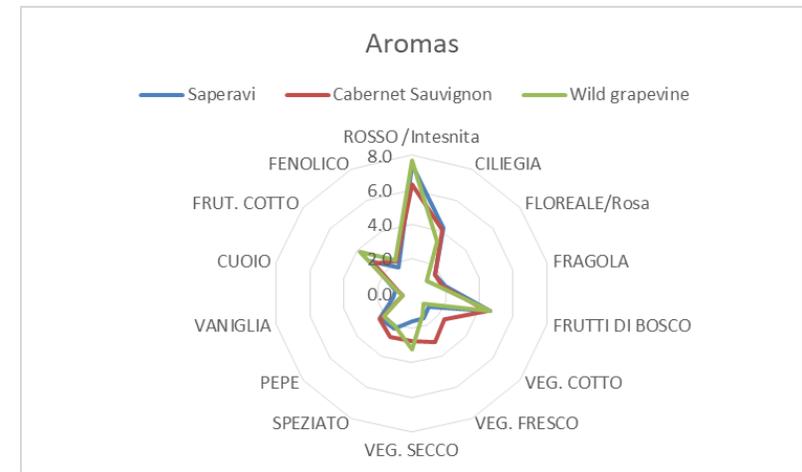
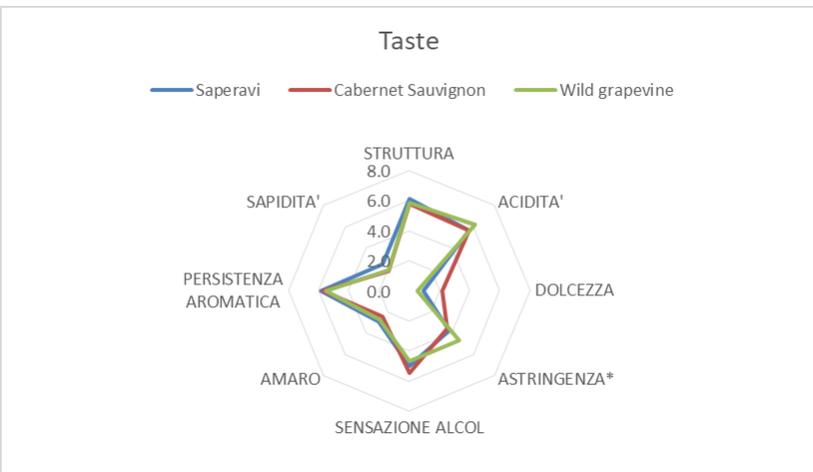
Total anthocyanins	1336
Total polyphenols	2223

Phenology table

QV385	Time of bud burst	16 April
-	Beginning of flowering	2 June
QV383	Time of beginning of berry ripening (ventral)	10 August
-	Berries ripe for harvest	11 September

Characterization of wine and grapes
The bunch is small, sparse, with small black berries. The wine has high sugar and acidic content.





Wine



Color: dark cherry;

Aromas stand out: forest fruits, dried herbs, spices, berries, leather and black pepper;

Aromas weak: strawberry, vanilla and flower tones.

Tasting characteristics: high acidity, astringency, rough tannins, cheerful, lingering taste, minerality. It is inferior to Saperavi and Cabernet Sauvignon.

Year of Publication: **2022**

Number of Pages: **388**

Language: **English**

WILD GRAPEVINE IN GEORGIA

Multidisciplinary Comparative Research to Unravel
the Mystery of its Domestication



David Maghradze, Osvaldo Failla (Editors)

Year of Publication: **2022**

Number of Pages: **166**

Language: **Georgia**

კრიკინა ვაზი

გაგრძელება საქართველოში და კვლევის თანამედროვე ასპექტები



შოთა რუსთაველის საქართველოს
ეროვნული სამეცნიერო ფონდი



თბილისი, 2022

Institute code: GEO038 Show rows: 100

Prime name	Variety number VIVC	Accession number	Accession name	Trueness to type of the variety	Remarks to the accession name	Virus
BATUMI 01	27395	GEO038-W2014-030	BATUMI 01			
DELISI 01	27388	GEO038-W2014-038	DELISI 01			
DIGHOMI 01	27389	GEO038-W2014-028	DIGHOMI 01			
KVETARI 19	27396	GEO038-W2016-046	KVETARI 19			
NAGHOMARI 01	27394	GEO038-W2014-047	NAGHOMARI 01			
NAKHIDURI 14	27393	GEO038-W2014-015	NAKHIDURI 14			
NINOTSMINDA 09	27392	GEO038-W2014-001	NINOTSMINDA 09			
SYLVESTRIS ASURETULI 01	27347	GEO038-W2014-021	ASURETI 01			
SYLVESTRIS BAGICALA 04/05	27349	GEO038-W2014-007	SYLVESTRIS BAGICALA 04/05			
SYLVESTRIS BAGICALA 07	27348	GEO038-W2014-008	BAGICALA 07			
SYLVESTRIS BAGICALA 12	27350	GEO038-W2014-010	BAGICALA 12			
SYLVESTRIS BARISAKHOS GADASAKHVEVI	27351	GEO038-W2014-031	BARISAKHOS GADASAKHVEVI			
SYLVESTRIS CHACHKHRIALA 01	27352	GEO038-W2014-034	CHACHKHRIALA 01			
SYLVESTRIS CHQUMI 02	27353	GEO038-W2014-049	CHQUMI 02			
SYLVESTRIS CHQUMI 03	27354	GEO038-W2014-052	CHQUMI 03			
SYLVESTRIS CHQUMI 04	27355	GEO038-W2014-040	CHQUMI 04			
SYLVESTRIS CHQUMI 06	27356	GEO038-W2014-045	CHQUMI 06			
SYLVESTRIS DELISI 06	27357	GEO038-W2014-009	DELISI 06			
SYLVESTRIS ENAGETI 01	27358	GEO038-W2014-033	ENAGETI 01			
SYLVESTRIS KVETARI 04	27359	GEO038-W2014-050	KVETARI 04			
SYLVESTRIS KVETARI 05 (2)	27360	GEO038-W2014-044	KVETARI 05 (2)			
SYLVESTRIS LAGODEKHI (THE 60TH QUARTER) 03	27361	GEO038-W2014-013	LAGODEKHI (THE 60TH QUARTER) 03			

Remarks to accession number and accession name

Vitis International Variety Catalogue VIVC

GEO36



GEO38



- Saguramo collection (GEO38
-) – 70 samples
- Shumi winery collection(GEO36
-) – 10 samples

Vitis vinifera ssp sativa DC.

Vitis vinifera ssp silvestris Gmel.

Wildly growing grape

Wild grape

Naghomari 01

Delisi 01

Tedotsminda 22(2)



Chachkhriala 01

Skra 01

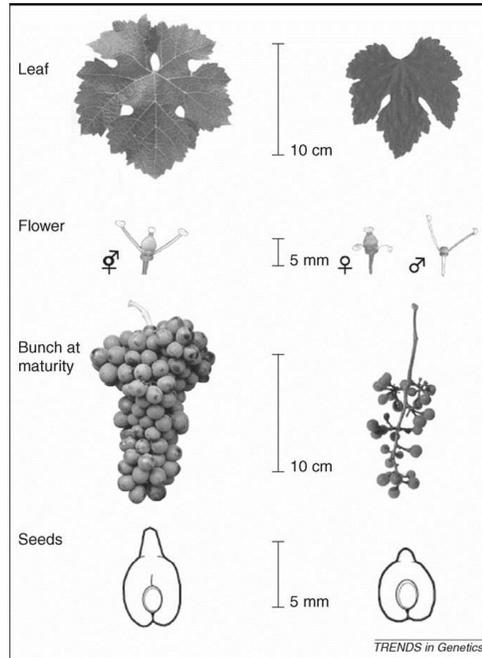
Ninotsminda 02



Nakhiduri 14

Tedotsminda 01

Dighomi 01



Meneso 01

Chqumi 04



A close-up photograph showing a person's hands, clad in purple nitrile gloves, sorting through a large quantity of dark blueberries. The berries are contained within a metal colander with a perforated surface. The scene is brightly lit, highlighting the texture of the gloves and the individual berries.

Thanks for your attention