

Supplementary material of the manuscript published in *Vitis* **61**, 37–44 (2022):

Molecular and ampelographic characterization of genotypes used for Pajarete wine, an old Denomination of Origin from Huasco and Elqui Valleys in northern Chile

P. PSZCZÓLKOWSKI¹), M. A. GANGA²), L. VELIZ²), M. H. CASTRO³), M. MENESES³), A. CASTRO^{1), 4}), P. CAÑÓN¹) and P. HINRICHSSEN³)

¹) Escuela de Agronomía, Facultad de Ciencias, Universidad Mayor, Huechuraba, Santiago, Chile

²) Departamento de Ciencia y Tecnología de los Alimentos, Facultad Tecnológica, Universidad de Santiago, Estación Central, Santiago, Chile

³) Instituto de Investigaciones Agropecuarias, INIA La Platina, La Pintana, Santiago, Chile

⁴) Centro de Investigación en Artes y Humanidades (CIAH), Facultad de Artes, Universidad Mayor, Santiago, Chile

Supplemental material 1

List of the accessions sampled from Alto del Carmen, in Huasco Valley, including local names, origin, trellis system and grape colour

Sample code	Local name	Sampling location	Trellis system	Berry skin color
A1	Italia Mejorada	Camarones Sur	Pergola	Green yellow
A2	Italia Antigua	Camarones Sur	Pergola	Red
A3	Rosada	Camarones Sur	Pergola	Rose
A4	Huasquina	Camarones Sur	Pergola	Green yellow
A5	Uva Frutilla	Camarones Sur	Vertically shoot positioned	Blue black
A6	País	Camarones Sur	Vertically shoot positioned	Blue black
A7	Negra 1	Camarones Sur	Vertically shoot positioned	Blue black
A8	Negra 2	Camarones Sur	Vertically shoot positioned	Blue black
C1	Italia Antigua	El Huracán	Vertically shoot positioned	Green yellow
C2	Moscatel Amarilla	El Huracán	Vertically shoot positioned	Green yellow
C3	Uva Blanca	El Huracán	Vertically shoot positioned ¹	Green yellow
C4	Negra Alargada	El Huracán	Vertically shoot positioned ¹	Red
E1	País	El Jilguero	Pergola	Blue black
E2	Cardenal de Grano Chico	El Jilguero	Pergola	Red
E3	Cardenal de Grano Grande	El Jilguero	Pergola	Red
E4	Italia Antigua	El Jilguero	Pergola	Green yellow
E5	Negra de Grano Redondo	El Jilguero	Pergola	Blue black
G1	Italia Mejorada	El Corral	Vertically shoot positioned	Green yellow
G2	Moscatel de Austria	El Corral	Vertically shoot positioned	Green yellow
G3	Pedro Giménez (San Francisco)	El Corral	Vertically shoot positioned	Green yellow
G4	Italia Nativa	El Corral	Vertically shoot positioned	Green yellow
G5	Albilla	El Corral	Vertically shoot positioned	Green yellow
G6	Rosada Talquina	El Corral	Vertically shoot positioned	Rose
G7	San Francisco	El Corral	Vertically shoot positioned	Blue black
G8	País	El Corral	Vertically shoot positioned	Blue black
T1	Italia Antigua (Moscatel de Alejandría)	Piedras Juntas	Vertically shoot positioned	Green yellow
T2	Albilla	Piedras Juntas	Vertically shoot positioned	Green yellow
T3	San Francisco	Piedras Juntas	Vertically shoot positioned	Blue black
T4	Rosada Chaucha	Piedras Juntas	Vertically shoot positioned	Blue black
T5	País	Piedras Juntas	Vertically shoot positioned	Blue black









¹ Sample collected in a fence.

Ampelographic description of accessions G6 ('Rosada Talquina') and C3 ('Uva Blanca')

	G6 Rosada Talquina	C3 Uva Blanca
Code OIV	Genotype 276 INIA, NN-276: 123-8 Hualañé El Corral, San Félix, Huasco valley. Atacama Region Collected October 2018	Genotype 369 El Huraacán, San Félix, Huasco valley. Atacama Region Collected October 2018
Young shoot	5 (full open)	5 (full open)
Shoot	001: Opening of the shoot tip 007: Color of the dorsal side of internodes 008: Color of the ventral side of internodes 009: Color of the dorsal side of nodes 010: Color of the ventral side of nodes 011: Density of erect hairs on nodes 012: Density of erect hairs on internodes 013: Density of prostrate hairs on nodes 014: Density of prostrate hairs on internodes 015-1: Distribution of anthocyanin coloration on the bud scales 015-2: Intensity of anthocyanin coloration on the bud scales 017: Length of tendrils 051: Color of upper side of blade 067: Shape of blade 068: Number of lobes 069: Color of the upper side of blade 070: Area of anthocyanin coloration of main veins on upper side of blade 073: Undulation of blade between main or lateral veins 074: Profile of blade in cross section 076: Shape of teeth 079: Degree of opening / overlapping of petiole sinus 080: Shape of base of petiole sinus 081-2: Petiole sinus base limited by vein 082: Degree of opening / overlapping of upper lateral sinuses 089: Erect hairs on main veins on upper side of blade 094: Depth of upper lateral sinuses 202: Length 203: Width 208: Shape 209: Number of wings of the primary bunch 223: Shape 225: Color of skin 231: Intensity of flesh anthocyanin coloration	1 (green) 2 (green and red) 1 (green) 2 (green and red) 1 (glabrous) 1 (glabrous) 1 (glabrous) 1 (glabrous) 4 (almost whole) 5 (medium) 1 (very short) 3 (bronze) 3 (pentagonal) 3 (five) 5 (medium green) 2 (only at petiolar point) 1 (undulation) 5 (twisted) 3 (both side convex) 3 (open) 1 (U-shaped) 1 (not limited by vein) 4 (strongly overlapped) 1 (absent) 5 (medium depth) 7 (long) 7 (wide) 2 (conical) 1 (absent) 4 (narrow ellipsoid) 2 (rose) 1 (none)
Young leaf		1 (green) 3 (red) 1 (green) 2 (green and red) 1 (glabrous) 1 (glabrous) 1 (glabrous) 1 (glabrous) 2 (basal) 3 (weak) 3 (short tendrils) 3 (bronze) 3 (pentagonal) 3 (five) 5 (medium green) 2 (only at petiolar point) 1 (undulation) 5 (twisted) 3 (both side convex) 3 (open) 1 (U-shaped) 1 (not limited by vein) 3 (slightly overlapped) 9 (present) 5 (medium depth) 7 (long) 7 (wide) 2 (conical) 1 (absent) 4 (narrow ellipsoid) 1 (green yellow) 1 (none)
Mature leaf		
Brunch		
Berry		

Supplemental material 3

Ampelographic description of accessions C3 (Uva Blanca) and G6 (Rosada Talquina)





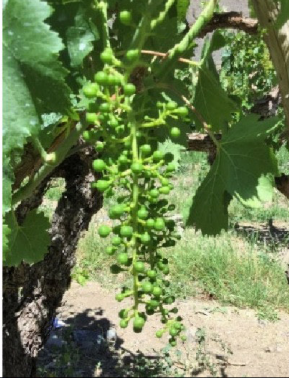



<p>Accession</p>	<p>C3 Uva Blanca Genotype 369</p> <p>El Huracán, San Félix, Huasco Valley. Atacama Region. Collected October 2018</p>	<p>G6 Rosada Talquina Genotype 276</p> <p>INIA, NN-276: 123-8 Hualañé. El Corral, San Félix foothill, Huasco Valley. Atacama Region. Collected October 2018.</p>
<p>Shoot and first leaves</p>		
<p>Dorsal and ventral side of leaves</p>		
<p>Fruit setting stage</p>		
<p>Mature cluster</p>		

Ampelographic description of accessions G3 ('Pedro Giménez' - 'San Francisco') and G5 ('Albilla', 'El Corral')

Code OIV	G3, Pedro Giménez – San Francisco		G5, Albilla		
	Genotype 182	INIA, Oro Campo (allelic variant 1) El Corral, San Félix foothill, Huasco Valley. Atacama Region Collected October 2018	Genotype 182	INIA, Oro Campo (allelic variant 1) El Corral, San Félix foothill, Huasco Valley. Atacama Region Collected October 2018	
Young shoot	001:	Opening of the shoot tip	5 (full open)	5 (full open)	
Shoot	007:	Color of the dorsal side of internodes	2 (green and red)	1 (green)	
	008:	Color of the ventral side of internodes	2 (green and red)	2 (green and red)	
	009:	Color of the dorsal side of nodes	2 (green and red)	2 (green and red)	
	010:	Color of the ventral side of nodes	2 (green and red)	2 (green and red)	
	011:	Density of erect hairs on nodes	1 (glabrous)	1 (glabrous)	
	012:	Density of erect hairs on internodes	1 (glabrous)	1 (glabrous)	
	013:	Density of prostrate hairs on nodes	1 (glabrous)	1 (glabrous)	
	014:	Density of prostrate hairs on internodes	1 (glabrous)	1 (glabrous)	
	015-1:	Distribution of anthocyanin coloration on the bud scales	4 (almost whole)	3 (up ³ / ₄)	
	015-2:	Intensity of anthocyanin coloration on the bud scales	7 (very strong)	3 (weak)	
	017:	Length of tendrils	1 (very short)	1 (very short)	
	051:	Color of upper side of blade	3 (bronze)	3 (bronze)	
	Mature leaf	065:	Size of blade	5 (medium)	5 (medium)
		067:	Shape of blade	3 (pentagonal)	3 (pentagonal)
068:		Number of lobes	3 (five)	3 (five)	
069:		Color of the upper side of blade	5 (medium green)	5 (medium green)	
070:		Area of anthocyanin coloration of main veins on upper side of blade	2 (only at petiolar point)	2 (only at petiolar point)	
073:		Undulation of blade between main or lateral veins	1 (absent)	9 (present)	
074:		Profile of blade in cross section	2 (V-shaped)	5 (twisted)	
076:		Shape of teeth	3 (both side convex)	3 (both side convex)	
079:		Degree of opening / overlapping of petiole sinus	3 (open)	3 (open)	
080:		Shape of base of petiole sinus	1 (U-shaped)	1 (U-shaped)	
081-2:		Petiole sinus base limited by vein	1 (not limited by vein)	1 (not limited by vein)	
082:		Degree of opening / overlapping of upper lateral sinuses	3 (slightly overlapped)	3 (slightly overlapped)	
094:		Depth of upper lateral sinuses	5 (medium depth)	5 (medium depth)	
Branch		204:	Density	7 (dense)	7 (dense)
	208:	Shape	2 (conical shape)	2 (conical shape)	
	209:	Number of wings of the primary bunch	1 (wings absent)	1 (wings absent)	
Berry	223:	Shape	2 (globose)	2 (globose)	
	225:	Color of skin	1 (green yellow)	1 (green yellow)	
	231:	Intensity of flesh anthocyanin coloration	1 (none)	1 (none)	




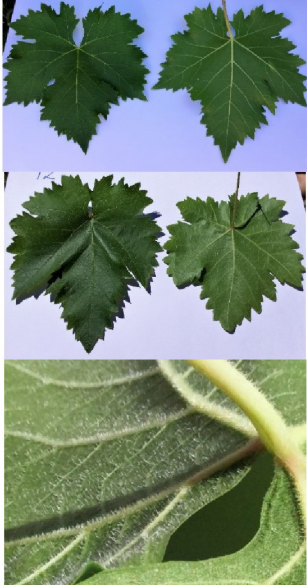

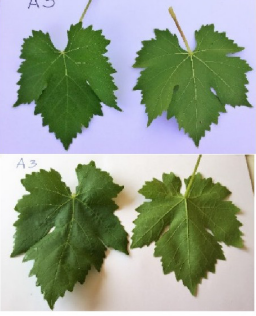
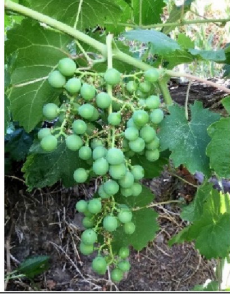
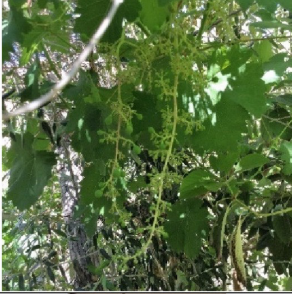
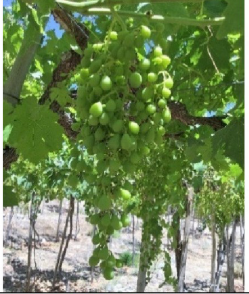



Supplemental material 5

Ampelographic description of accessions G3 ('Pedro Giménez' - 'San Francisco') and G5 ('Albilla')

<p>Accession</p>	<p>G3, Pedro Giménez – San Francisco Genotyp 182' INIA, Oro Campo (allelic variant 1) El Corral, San Félix foothill, Huasco Valley. Atacama Region. Collected October 2018.</p>	<p>G5, Albilla Genotype 182' INIA, Oro Campo (allelic variant 1). El Corral, San Félix foothill, Huasco Valley. Atacama Region. Collected October 2018</p>
<p>Apex and upper / lower leaflets</p>		
<p>Dorsal and ventral side of leaves</p>		
<p>Cluster at berry setting</p>		
<p>Cluster with ripe berries</p>		

Supplemental material 7

Ampelographic description of accessions T2 ('Albilla'), C4 ('Negra Alargada') y A3 ('Rosada')

Accession	T2 Albilla Genotype 311 INIA, NN-311 Piedras Juntas, San Félix, Huasco Valley, Atacama Region. Collected October 2018	C4, Negra Alargada Genotipo 313 INIA, NN-313 El Huracán, San Félix, Huasco Valley, Atacama Region. Collected October 2018.	A3, Rosada Genotype 314 INIA, NN-314 Camarones Sur, Vallenar, Huasco Valley, Atacama Region. Collected October 2018.
Apex and upper and lower leaflets			
Dorsal and ventral side of leaves			
Cluster at berry setting			
Cluster with mature berries			

Supplemental material 8

Cladogram showing the hierarchical clustering of Pajarete wine genotypes based on UPGMA with Euclidian distances

