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Castellarin et al.

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(54) **GRAPEVINE NAMED 'SAUVIGNON KRETOS'**

(50) Latin Name: *Vitis×vinifera* (hybrid)
Varietal Denomination: **SAUVIGNON KRETOS**

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(65) **Prior Publication Data**

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Latin name of the genus and species of the plant claimed: *Vitis×vinifera* (hybrid).
Variety name: 'SAUVIGNON KRETOS'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct summer/fall bearing grapevine variety, botanically known as *Vitis vinifera*, and hereinafter referred to by the name 'SAUVIGNON KRETOS'.

The new grapevine 'SAUVIGNON KRETOS' is a product of a controlled breeding program conducted by the inventors in Udine, Italy. The objective of the breeding program was to develop a new grapevine variety particularly characterized by resistance to cold (<-20° C.), resistance to downy mildew (*Plasmopara viticola*), and tolerance to powdery mildew (*Uncinula necator*).

The new grapevine 'SAUVIGNON KRETOS' originated from a cross made by the inventors in 2002 in Udine, Italy. The female or seed parent is the grapevine variety *Vitis vinifera* 'Sauvignon' (unpatented), and the male or pollen parent is the grapevine variety *Vitis* '20/3' (Bianca×SK77-4/5) (unpatented).

The new grapevine 'SAUVIGNON KRETOS' was discovered and selected by the inventors as a single flowering plant within the progeny of the stated cross in a controlled environment in 2002 in Udine, Italy. Asexual reproduction of the new grapevine variety by grafting was first performed in February 2004 in Rauscedo, Friuli Venezia Giulia region, Italy, and has demonstrated that the combination of charac-

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(58) **Field of Classification Search**
USPC **Plt./207**
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of grapevine named 'SAUVIGNON KRETOS', primarily adapted to the growing conditions of the temperate regions, and characterized by its strong vigor; erect growth habit; wedge-shaped leaves with medium texture; medium weight and conical shaped berry clusters; early maturing, firm berry flesh with no coloration and neutral taste primarily for winemaking; early harvesting time; and resistance to winter temperatures (to -22° C.), resistance to downy mildew and tolerance to powdery mildew.

4 Drawing Sheets

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teristics as herein disclosed for the new cultivar are firmly fixed and retained through successive generations of asexual reproduction. The new cultivar reproduces true to type.

5 **SUMMARY OF THE INVENTION**

'SAUVIGNON KRETOS' is primarily adapted to the climate and growing conditions of the temperate regions with average yearly temperature about 13° C., minimum 10 winter temperature about -20° C., annual rainfall around 700-1500 mm of rain (e.g. North-Eastern Italy, Friuli). This region provides the necessary year-round temperatures required for it to produce and maintain a strong vigorous plant with consistent fruit production from April through 15 November on primocanes and in the ensuing year from April through November on the floricanes.

The following traits have been repeatedly observed and are determined to be unique characteristics of 'SAUVIGNON KRETOS', which in combination distinguish this grapevine plant as a new and distinct variety.

1. Strong vigor;
2. Erect growth habit;
3. Wedge-shaped leaves with a medium green upper surface and light green lower surface and a medium texture;
4. Fruit clusters with medium weight, conical shape, firm berry flesh with neutral taste, and no flesh coloration, early maturity (end of August in Middle Friuli, North-Eastern Italy); and primarily used for wine.

5. Primocanes and floricanes with an elliptic cross section, brownish color, no lenticels, and small internodes of 8 mm diameter;

6. Early harvesting time, at end of August in Middle Friuli, North-Eastern Italy; and

7. Resistance to winter temperature (-22°C), resistance to downy mildew, and tolerant to powdery mildew, if overripening is allowed it is susceptible to cluster rots.

Plants of the new grapevine 'SAUVIGNON KRETOS' differ from plants of the parents, *Vitis vinifera* 'Sauvignon' (unpatented) and *Vitis* '20/3' (unpatented), in the following characteristics described in Table 1.

TABLE 1

Comparison with Parent Varieties			
Characteristic	New Cultivar 'SAUVIGNON KRETOS'	Female Parent 'Sauvignon' (unpatented)	Male Parent '20/3' (unpatented)
vigor growth habit	strong erect	medium semi-erect	medium semi-erect
leaf	medium, medium green color (upper surface), light green color (lower surface), color (lower surface), no hairs in both surfaces, wedge-shaped, medium texture,	medium, medium green color (upper surface), pale green color (lower surface), color (lower surface), prostrate hairs on upper surface: present, high density of prostrate hairs on lower surface, circular shape, medium texture	Medium size, light green color (upper surface), green color (lower surface), no hairs in both surfaces, wedge-shaped - kidney-shaped, medium texture
cluster	medium weight, conical with two wings, medium dense, berry skin with green color, firm flesh, neutral taste, no flesh coloration	very low weight, cylindrical-conical, with 1-2 wings, dense, berry skin with green-yellow color, slightly firm flesh, aromatic taste, no flesh coloration	low weight, conical, with 1-2 wings, medium dense, berry skin with green-yellow color, slightly firm flesh, neutral taste, no flesh coloration
primocane and floricanes	elliptic cross section, brownish color, lenticels: absent, short-medium internodes, diameter: small (about 8 mm)	circular cross section, brownish color, lenticels: absent, short-medium internodes, diameter: medium internodes, diameter small (about 8 mm)	oblate cross section, brownish color, lenticels: absent, medium internodes, diameter small (about 8 mm)
harvesting time	early (late August in Middle Friuli, North-Eastern Italy),	September in Middle Friuli, North-Eastern Italy)	Early (late August, Middle Friuli, North-Eastern Italy)
resistances	resistant to winter temperature (-22°C), resistant to downy mildew, tolerant to powdery mildew, when overripe susceptible to cluster rots.	Average resistance to winter temperature (-15°C), susceptible to downy mildew, susceptible to powdery mildew	resistant to winter temperature not known, resistant to downy mildew, resistant to powdery mildew

Of the many commercial cultivars known to the present inventor, the most similar to the new grapevine 'SAUVIGNON KRETOS' is the female parent 'Sauvignon', to which a comparison has been provided above.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new grapevine 'SAUVIGNON KRETOS'

showing the colors as true as is reasonably possible with colored reproductions of this type. Colors in the photographs may differ slightly from the color values cited in the detailed botanical description, which accurately describe the color of 'SAUVIGNON KRETOS'.

FIG. 1A and FIG. 1B show typical fruit clusters of 'SAUVIGNON KRETOS', taken on Aug. 30, 2012 in Udine, Italy.

10 FIG. 2 shows a typical mature leaf (upper surface, left and lower surface, right) of 'SAUVIGNON KRETOS', taken on Jun. 1, 2012 in Udine, Italy.

FIG. 3 shows a typical mature vine of 'SAUVIGNON KRETOS', taken on Aug. 3, 2012.

15 FIG. 4 shows a close-up view of typical mature fruit of 'SAUVIGNON KRETOS', taken on Aug. 30, 2012 in Udine, Italy

DETAILED BOTANICAL DESCRIPTION

20 The following description of 'SAUVIGNON KRETOS' unless otherwise noted, is based on observations taken during the 2011, 2012, and 2013 growing seasons in Udine, Italy and Fossalon di Grado (GO), Italy, from plants dug from a nursery located in Vivai Cooperativi Rauscedo, Rauscedo (PN), Italy during the beginning of December 2007 and planted approximately 16 to 20 weeks later in Udine, Italy and Fossalon di Grado (GO), Italy. The phenotypical descriptions and color designations stated for the new variety may vary, depending upon variations in environmental factors, including weather (temperature, humidity and light intensity), day length, soil type, location and cultural conditions. 'SAUVIGNON KRETOS' has not been observed under all possible environmental conditions.

25 30 35 Color references are made to The Royal Horticultural Society Colour Chart (R.H.S.), (Edition V, 2007), except where general colors of ordinary significance are used.

TABLE 3

Detailed Botanical Description		
Characteristic	'SAUVIGNON KRETOS'	Sauvignon (unpatented)
<u>GENERAL</u>		
Resistance to pest/disease	Resistant to downy mildew, tolerant to powdery mildew	Susceptible to downy mildew and to powdery mildew
50 Resistance to natural elements	Resistant to winter cold down to -22°C .	Resistant to winter cold down to -15°C .
<u>VINE</u>		
vigor	strong	medium
Trunk diameter	6.5	6.5
Bark		
<u>Canes</u>		
color	RHS 177B	Dark brown
underbark color	RHS 179B	Light brown
texture	n.a.	n.a.
<u>Shoots</u>		
length	Internode length cm 9	Internode length about cm 11
Width (diameter)	8 mm	8 mm
shape	Erected, cross section: oblate,	Semi-erected, cross section: circular,

TABLE 3-continued

Detailed Botanical Description		
Characteristic	'SAUVIGNON KRETOS'	Sauvignon (unpatented)
color	surface: with stripes, nodes and internodes without hairs internodes with red (RHS 185B) and green (RHS 144B) pigmentation on both sides, nodes with red (RHS green (RHS 185B) and 144B) ventral side	surface: smooth, nodes and internodes without hairs Internodes with green color on ventral and dorsal side, nodes with green ventral and dorsal side (RHS 144B) ventral side
Tendrils		dorsal side and green
form	Bifid or trifid	bifid
color	RHS 143B	Green
texture	normal	normal
number	2 or <2 consecutive	2 or <2 consecutive
Buds		
size	average	average
shape	round	round
color	RHS 139C and RHS 181A	Light brown
number	2/node	2/node
time of budbreak	early	early-medium
LEAVES		
Size	small-medium	medium
Number of leaflets	5	5
Glossiness	Medium-high	medium
Cross section shape	V-shaped	V-shaped
Color (immature)		
Upper surface	RHS 140B and RHS 185B	Pale green
Under surface	RHS 140B and RHS 185B	Pale green
Color (mature)		
Upper surface	RHS 141A	Medium green
Under surface	RHS 141B	Darker green
Petiole		
Length (cm)	6.2	6.0
Color (upper surface)	RHS 145C	green
Color (under surface)	RHS 145C	green
Stipule orientation	n.a.	n.a.
FLOWERS		
Flowering period (time of beginning of flowering)	End of May	End of May
Sex	hermaphrodite	hermaphrodite
Size	Average	average
Diameter(cm)	0.3 (stamens)	0.3 (stamens)
Stamen Color	RHS 4D	
Pistil Color	RHS 149A	
Fragrance	average	average
Flower number (at 3 rd node from tip of lateral mean and range)	n.a.	n.a.

TABLE 3-continued

Detailed Botanical Description		
Characteristic	'SAUVIGNON KRETOS'	Sauvignon (unpatented)
Petals		
Length (cm)	n.a.	n.a.
Width (cm)	n.a.	n.a.
10 Overall shape	calyptra	calyptra
Calyptra Color	RHS 134A	green
Sepals	None	None
Length (cm)	n.a.	n.a.
Width (cm)	n.a.	n.a.
Overall shape	n.a.	n.a.
Color (immature)	n.a.	n.a.
15 Upper surface		
Under surface		
Color (mature)	n.a.	n.a.
Upper surface		
Under surface		
Pedicel		
20 Length (mm)	7	7
Color	RHS 145C	green
FRUIT		
25 Primocane time of fruiting (1 st pick)	August 25th	September 7th
Clusters		
cluster weight	Low (g 170)	Low (g 230)
cluster shape	conical	conical
cluster length	mm 180	medium
avg. berries per cluster	200	220
avg. clusters per shoot	2	2
Berries		
30 Berry size	g 1.8	g 1.0
Berry length (cm)	1.76	1.50
Berry width (cm)	1.56	1.50
Overall shape of berry	broad ellipsoid	globose
Berry Texture	soft	soft
Berry Skin Color (immature)	RHS 137C	green
Berry Skin Color (mature, at 19 ^o Bx)	RHS 150B	green
Berry Flesh Color	RHS 148B	
Soluble solids (%)	22.6	21.1
40 Titratable acidity (as g/L tartaric acid)	4.6	5.7
Sugar/acid ratio	4.9	3.7
Firmness	soft	soft
Seeds	2-3	2-3
Seed Color	RHS 172A and RHS 163B	
50 Skin cracking?	no	rarely
Juice color	transparent	transparent
Berry taste	neutral	neutral
Eating quality	n.a.	n.a.
Berry uses	wine	wine
Shipping quality	n.a.	n.a.
55		

What is claimed is:

1. A new and distinct grapevine, referred to as 'SAUVIGNON KRETOS', as herein described and illustrated by the characteristics set forth above.

FIG. 1A

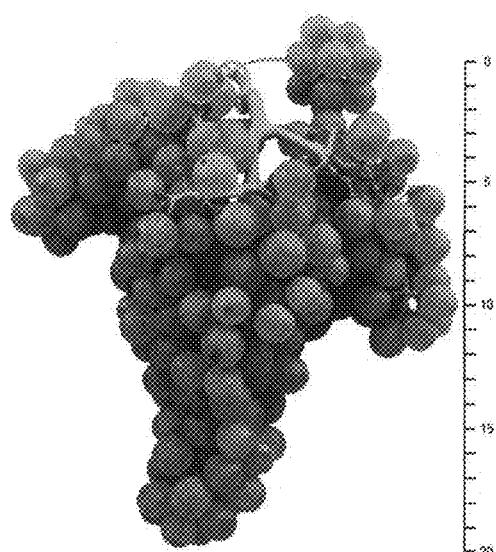


FIG. 1B

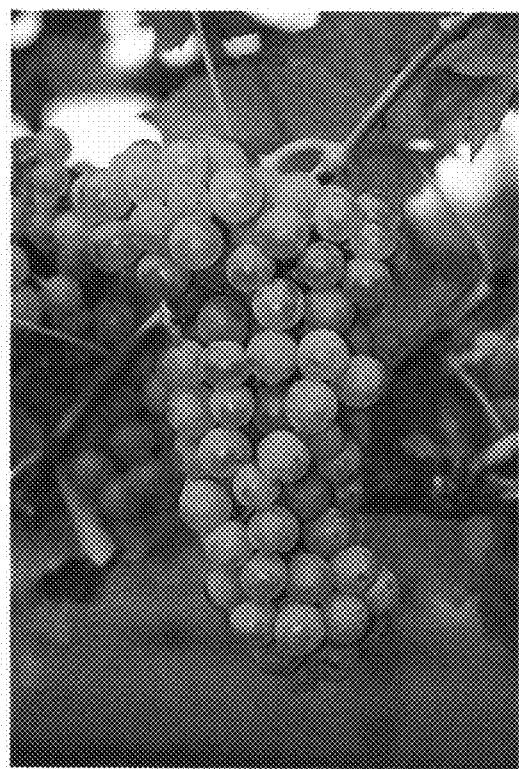


FIG. 2

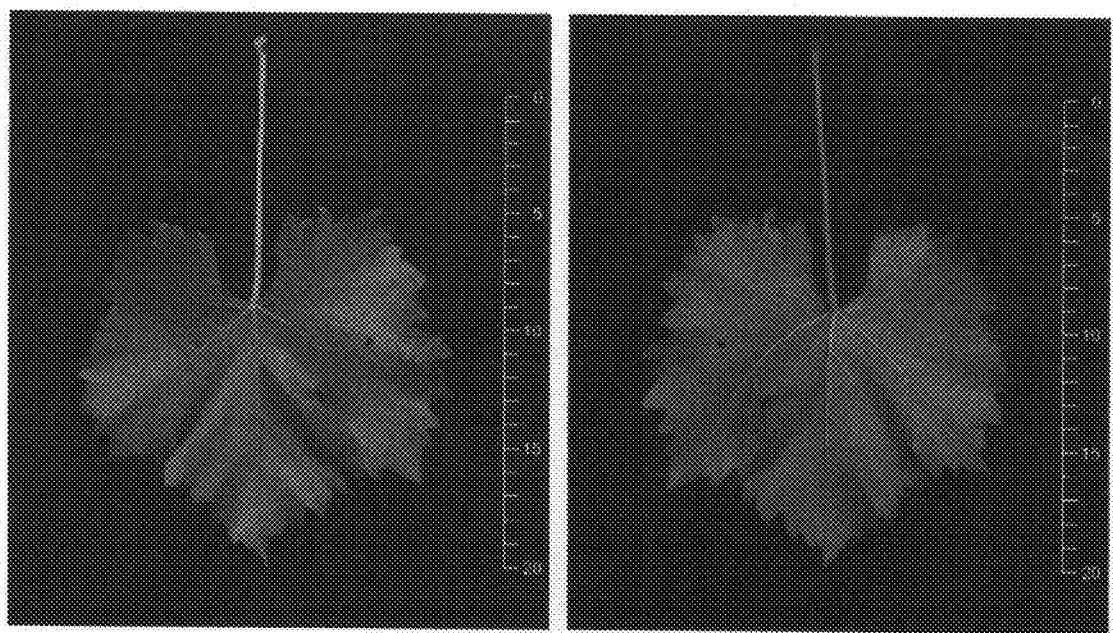


FIG. 3



FIG. 4

