



(12) **United States Plant Patent**  
**Castellarin et al.**

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(54) **GRAPEVINE NAMED ‘CABERNET VOLOS’**

(50) Latin Name: *Vitis×vinifera* (hybrid)  
Varietal Denomination: **CABERNET VOLOS**

(71) Applicants: **Università degli Studi di Udine**, Udine  
UD (IT); **Istituto di Genomica Applicata**, Udine UD (IT)

(72) Inventors: **Simone Diego Castellarin**, Vancouver (CA); **Guido Cipriani**, Faedis (IT); **Gabriele Di Gaspero**, Cividale del Friuli UD (IT); **Michele Morgante**, Tricesimo UD (IT); **Enrico Peterlunger**, Codroipo UD (IT); **Raffaele Testolin**, Udine (IT)

(73) Assignees: **Università degli Studi di Udine**, Udine (IT); **Istituto di Genomica Applicata**, Udine (IT)

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*Primary Examiner* — Annette Para

(74) *Attorney, Agent, or Firm* — Foley & Lardner LLP

(57) **ABSTRACT**

A new and distinct variety of grapevine named ‘CABERNET VOLOS’, primarily suited to the growing conditions of the temperate regions, and characterized by its medium vigor; semi-erect growth habit; medium, pentagonal to circular shaped leaves; short-medium, dense, cylindrical berry clusters; dark blue berries with soft to slightly firm berry flesh, herbaceous taste, and no flesh coloration; and resistance to winter temperatures (to –24° C.), resistance to downy mildew, and tolerance to powdery mildew.

**4 Drawing Sheets**

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

Variety name: ‘CABERNET VOLOS’.

**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 ‘CABERNET VOLOS’.

The new grapevine ‘CABERNET VOLOS’ 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 ‘CABERNET VOLOS’ originated from a cross made by the inventors in 2002 in Udine, Italy. The female or seed parent is the grapevine variety, *Vitis vinifera* cv. ‘Cabernet Sauvignon’ (unpatented), and the male or pollen parent is the grapevine variety, *Vitis* cv. ‘20/3’ (BiancaxSK77-4/5) (unpatented).

The new grapevine ‘CABERNET VOLOS’ was discovered and selected by the inventor 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 characteristics as herein disclosed for the new cultivar are firmly

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fixed and retained through successive generations of asexual reproduction. The new cultivar reproduces true to type.

**SUMMARY OF THE INVENTION**

‘CABERNET VOLOS’ is primarily adapted to the climate and growing conditions of the temperate regions with average yearly temperature about 13° C., minimum 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 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 ‘CABERNET VOLOS’, which in combination distinguish this grapevine plant as a new and distinct variety.

1. Medium vigor;
2. Semi-erect growth habit;
3. Medium size, pentagonal to circular shaped leaves with medium green upper surfaces and pale green lower surfaces and medium texture;
4. Short-medium size, dense, cylindrical shaped berry clusters with one middle-size wing; dark blue berries with soft to slightly firm flesh, herbaceous taste, and no flesh coloration; primarily used for wine; maturing in Mid-late September (Middle Friuli, North-Eastern Italy);



5. Primocanes and floricanes with elliptic cross section, brownish color, no lenticels, and short-middle internodes (13-14 cm with diameter: 9-10 mm);

6. Harvesting time of Mid-late September (Middle Friuli, North-Eastern Italy); and

7. Resistance to winter temperature (−24° C.), resistance to downy mildew, and tolerance to powdery mildew.

Plants of the new grapevine ‘CABERNET VOLOS’ differ from plants of the parents, *Vitis vinifera* ‘Cabernet Sauvignon’ (unpatented) and *Vitis* cross ‘20/3’ (unpatented), in the following characteristics described in Table 1.

TABLE 1

Comparison with parent varieties			
Characteristic	New Cultivar ‘CABERNET VOLOS’	Female Parent ‘Cabernet Sauvignon’ (unpatented)	Male Parent ‘20/3’ (unpatented)
vigour:	medium	strong	medium
growth habit	semi-erect	horizontal	semi-erect
leaf	medium size, medium green color (upper surface), pale green color (lower surface), pentagonal and circular shape, medium texture, no hairs in both surfaces.	medium size, medium green color (both upper and lower surface), low hair density in both surfaces, 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	short-medium size cluster, cylindrical with one middle-size wing, dense, berry skin with dark-blue color, soft to slightly firm flesh, herbaceous taste, no flesh coloration	Very low weight, cylindrical shape with 1-2 wings, medium bunch density, berry skin with blue black color, soft flesh, neutral taste, no to very weak 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
primo-cane and flori-cane	elliptic cross section, brownish colour, lenticels: absent, short-middle internodes (13-14 cm), diameter: 8 9-10 mm	circular cross section, brownish color, lenticels: absent, medium internodes, diameter small (about 8 mm)	oblate cross section, brownish color, lenticels: absent, medium internodes, diameter small (about 8 mm)
har-vesting time	Mid-late September (Middle Friuli, North-Eastern Italy)	late (1st week of October in Middle Friuli, North-Eastern Italy)	Early (last decade August, Middle Friuli, North-Eastern Italy)
resis-tances	resistant to winter temperature (−24° C.), resistant to downy mildew, tolerant to powdery mildew.	Resistance to winter temperature not checked, susceptible to downy mildew, susceptible to powdery mildew	resistant to winter temperature not checked, 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 ‘CABERNET VOLOS’ is the female parent ‘Cabernet 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 ‘CABERNET VOLOS’ 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 ‘CABERNET VOLOS’.

FIG. 1A and FIG. 1B show a typical fruit cluster of ‘CABERNET VOLOS’ taken on Sep. 10, 2012, in Udine, Italy

FIG. 2 shows a typical mature leaf (upper surface, left and lower surface, right) of ‘CABERNET VOLOS’ taken on Jun. 15, 2012, in Udine, Italy.

FIG. 3 shows a typical mature vine of ‘CABERNET VOLOS’ taken on Aug. 3, 2012.

FIG. 4 shows a close-up view of mature fruit of ‘CABERNET VOLOS’ taken on Sep. 10, 2012, in Udine, Italy.

DETAILED BOTANICAL DESCRIPTION

The following description of ‘CABERNET VOLOS’ unless otherwise noted, is based on observations taken during the 2011, 2012, and 2013 growing seasons(s) in Udine, Italy and Fossalon di Grado (GO), Italy. from plants dug from a nursery located in 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. ‘CABERNET VOLOS’ has not been observed under all possible environmental conditions.

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.

Characteristic	‘CABERNET VOLOS’	‘CABERNET SAUVIGNON’ (unpatented)
GENERAL		
Resistance to pest/disease	Resistant to downy mildew, tolerant to powdery mildew	Susceptible to both downy and to powdery mildew
Resistance to natural elements	Resistant to winter cold down to −23° C.	Resistant to winter cold not evaluated
VINE		
Vigor	medium	high
Trunk diameter	6 cm (6 yrs-old plant)	6 cm (6 yrs-old plant)
Bark		
color	RHS 177B	Brownish
underbark color	RHS 179B	Light brown
texture	n.a.	n.a.
Canes		
length	Internode length cm 13-14	Internode length cm 10
width	9-10 mm	8 mm
Shoots		
shape	Semi-erect, cross section: elliptic, surface: with stripes, nodes and internodes without hairs	Horizontal, cross section: circular, surface: smooth, nodes and internodes without hairs
color	Internodes with red (RHS 185B) and green (RHS 144B) pigmentation on dorsal side, and green (RHS 144B) ventral side	internodes and nodes with green and red color on dorsal side and green pigmentation on ventral side
Tendrils		
form	Bifid	bifid
color	RHS 145C and RHS 184D	Green
texture	normal	normal
number	2 or <2 consecutive	2 or less consecutive

-continued		
Characteristic	‘CABERNET VOLOS’	‘CABERNET SAUVIGNON’ (unpatented)
<u>Buds</u>		
size	average	average
shape	round	round
color	RHS 139C and RHS181A	Light brown
number	2/node	2/node
time of buddbreak	early	medium
<u>LEAVES</u>		
Size	medium	medium
Number of leaflets	5	5
Glossiness	Medium-high	medium
Cross section shape	V-shaped	flat
Color (immature)		
Upper surface	RHS 143B and RHS185B	copper-reddish
Under surface	RHS 143B and RHS185B	copper-reddish
Color (mature)		
Upper surface	RHS 143B	medium green
Under surface	RHS 143C	medium green
Petiole		
Length (cm)	6.2	6.0
Color (upper surface)	RHS 185D	reddish
Color (under surface)	RHS185D	reddish
Stipule orientation	n.a.	n.a.
<u>FLOWERS</u>		
Flowering period (time of beginning of flowering)	End of May	1st week June
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 <sup>rd</sup> node from tip of lateral mean and range)	n.a.	n.a.
<u>Petals</u>		
Length (cm)	n.a.	n.a.
Width (cm)	n.a.	n.a.
Overall shape	calyptra	calyptra
Calyptra Color	RHS 134A	green
Sepals		
Length (cm)	n.a.	n.a.
Width (cm)	n.a.	n.a.
Overall shape	n.a.	n.a.

-continued		
Characteristic	‘CABERNET VOLOS’	‘CABERNET SAUVIGNON’ (unpatented)
Color (immature)	n.a.	n.a.
Upper surface		
Under surface		
Color (mature)	n.a.	n.a.
Upper surface		
Under surface		
Pedicel		
Length (mm)	45 (cluster)	6
Color	RHS 145C	green
<u>FRUIT</u>		
Primocane time of fruiting (1 <sup>st</sup> pick)	September 10th	September 27th
Clusters		
cluster weight	g 130	Small (g 139)
cluster shape	cylindrical	cylindrical
cluster length	mm 100	medium (mm 195)
avg. berries per cluster	120	99
avg. clusters per shoot	2	2
Berries		
Berry size	g 1.44	Very low (g 1.4)
Berry length (cm)	1.76	1.5
Berry width (cm)	1.56	1.5
Overall shape of berry	globose	globose
Berry Texture	soft to slightly firm	soft
Berry Skin	RHS 137C	green
Color (immature)		
Berry Skin	RHS 103B	Blu black
Color (mature, at 19° Bx)		
Berry Flesh Color	RHS 148B	
Soluble solids (%)	24.8	22.1
Titratable	4.8	7.4
acidity (as g/L tartaric acid)		
Sugar/acid ratio	5.2	3.0
Firmness	soft	soft
Seeds	2-3	2-3
Seed Color	RHS 167B and RHS I63A	
Skin cracking?	no	no
Juice color	red	No or very weak
Berry taste	Slightly herbaceous	herbaceous
Eating quality	n.a.	n.a.
Berry uses	wine	wine
Shipping quality	n.a.	n.a.

What is claimed is:

1. A new and distinct grapevine, referred to as ‘CABERNET VOLOS’, as herein described and illustrated by the characteristics set forth above.

\* \* \* \* \*



FIG. 1A

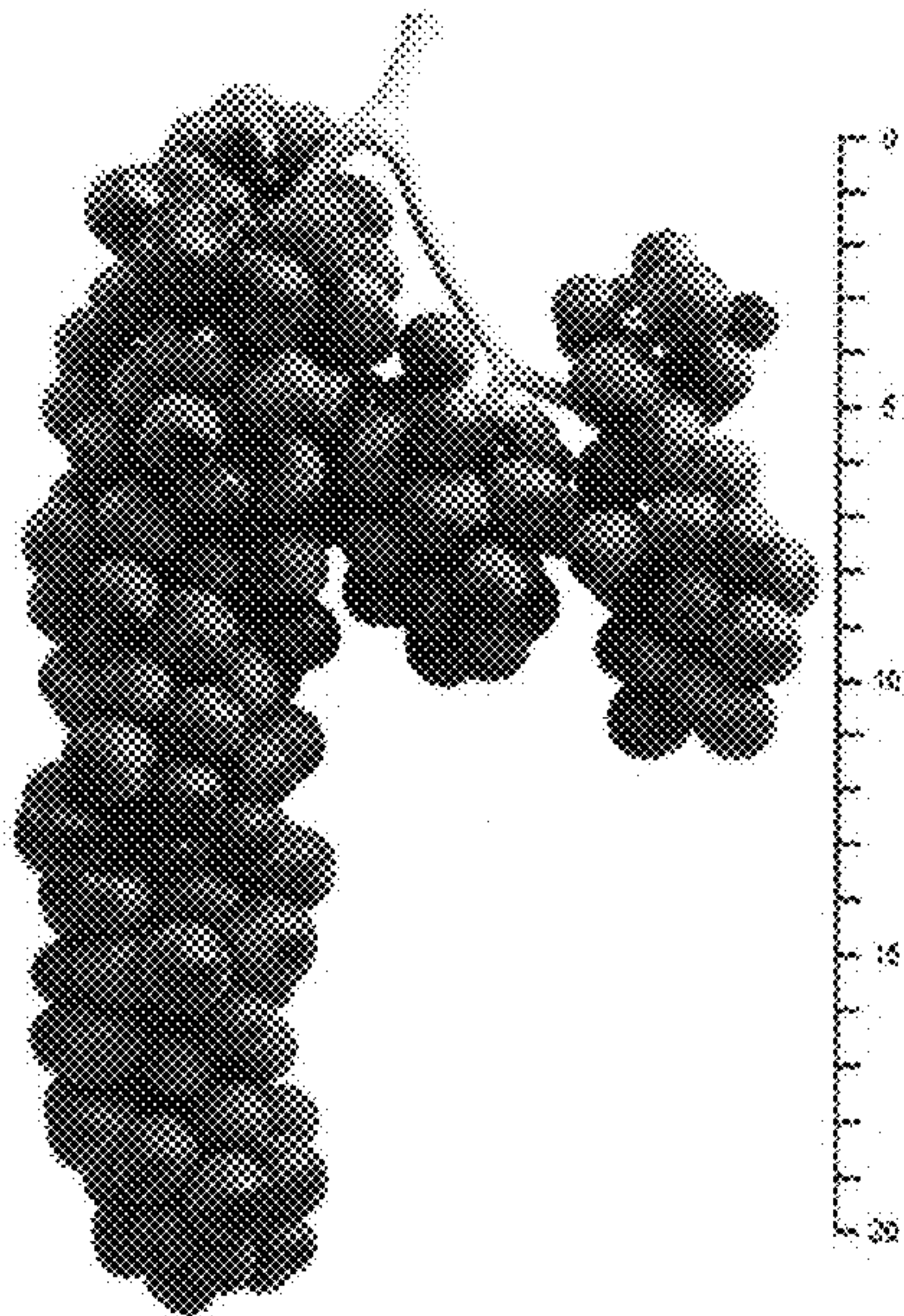


FIG. 1B

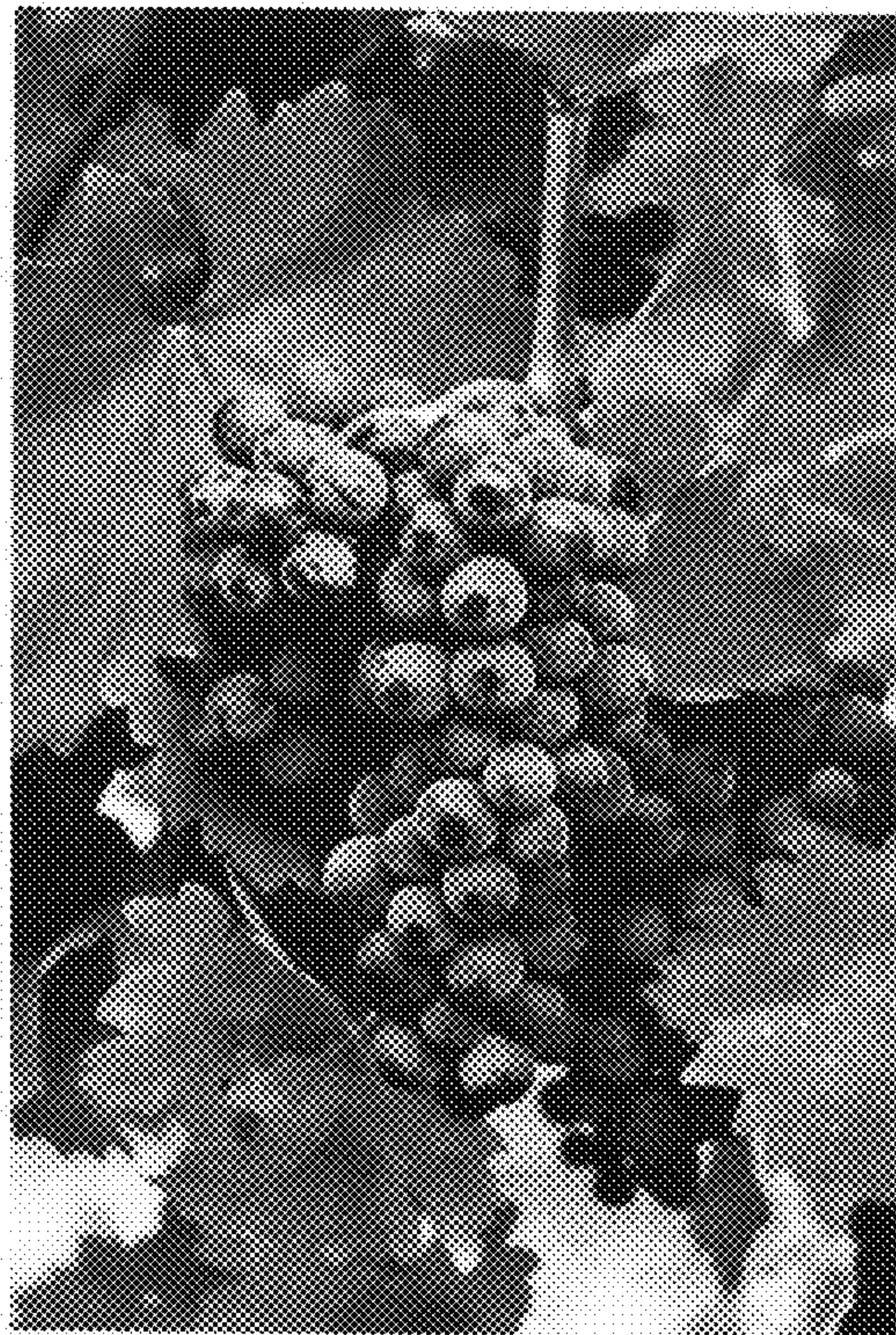




FIG. 2

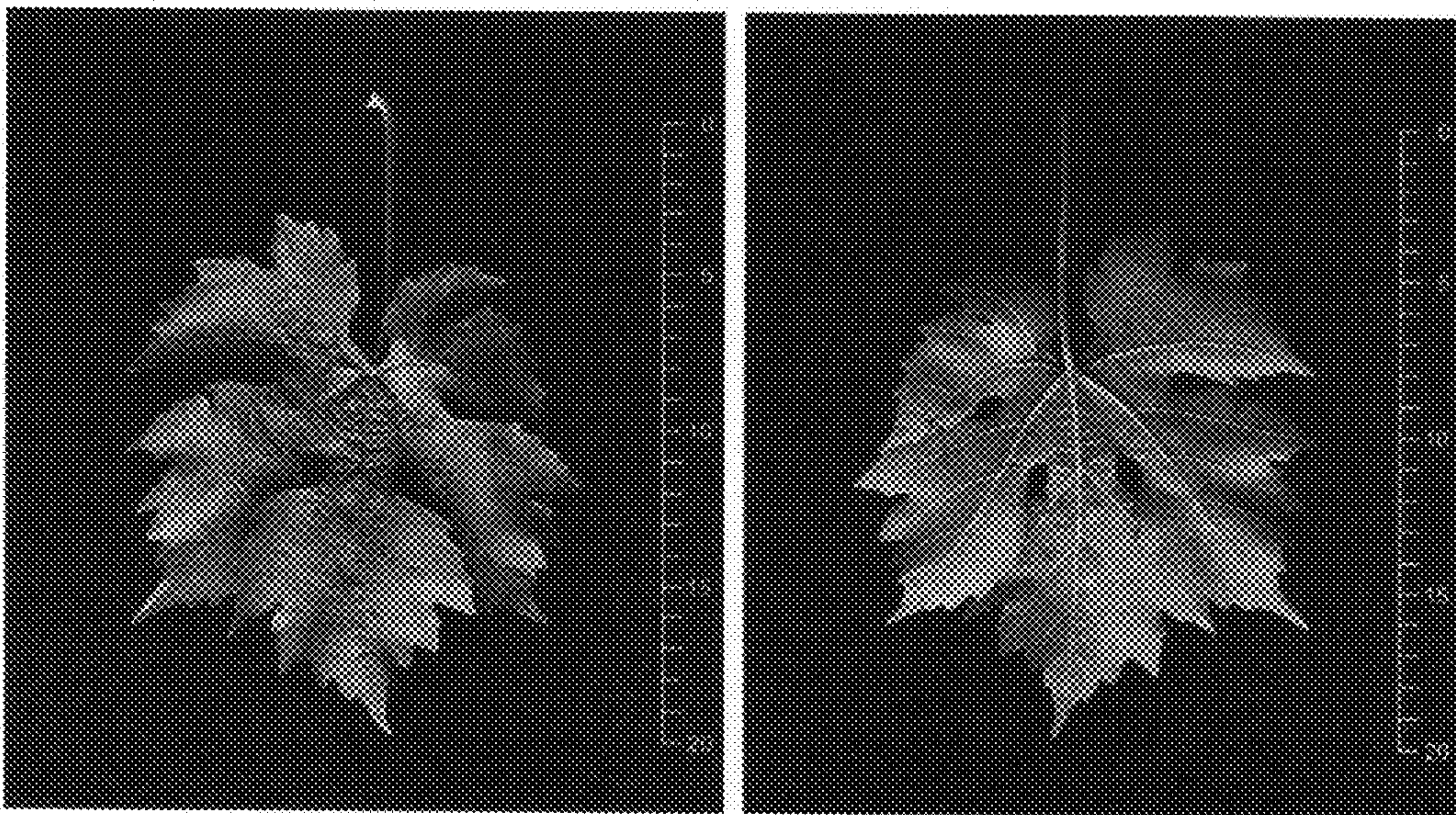




FIG. 3





FIG. 4

