



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

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(54) **GRAPEVINE NAMED ‘FLEURTAI’**

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

(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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See application file for complete search history.

Primary Examiner — Annette Para

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

(57) **ABSTRACT**

A new and distinct variety of grapevine plant named ‘FLEURTAI’, primarily adapted to the growing conditions of the temperate regions and characterized by its strong vigor; erect growth habit; small to medium circular shaped leaves with medium texture; medium sized berry clusters with golden-green berries that have an amber nuance on the sunny side of the berry, soft flesh, neutral taste, and no flesh coloration primarily used for wine; early harvesting time; and resistance to winter temperatures (to –23° 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: ‘FLEURTAI’.

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 ‘FLEURTAI’.

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

The new grapevine ‘FLEURTAI’ 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,

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and has demonstrated that the combination of characteristics 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.

SUMMARY OF THE INVENTION

‘FLEURTAI’ 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 ‘FLEURTAI’, which in combination distinguish this grapevine plant as a new and distinct variety.

1. Strong vigor;
2. Erect growth habit;
3. Small to medium circular shaped leaves with medium to dark green upper surfaces and light green lower surfaces and medium texture;
4. Medium size, loose to medium dense, conical berry clusters with two middle size wings; golden-green color berries with amber nuances on the sunny side of

the berry, soft flesh, neutral taste, no flesh coloration; primarily for wine; maturing in late August (Middle Friuli, North-Eastern Italy);

5. Primocanes and floricanes with oblate cross section, brownish color, no lenticels, and short-middle internodes (diameter: 8 mm);

6. Late August harvesting time (Middle Friuli, North-Eastern Italy); and

7. Resistance to winter temperature (−23° C.), resistance to downy mildew, and tolerance to powdery mildew.

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

TABLE 1

Comparison with Parent Varieties			
Characteristic	New Cultivar ‘FLEURTAI’	Female Parent ‘Tocai Friulano’ (unpatented)	Male Parent ‘20/3’ (unpatented)
vigor	strong	strong	medium
growth	erect	semi-erect	semi-erect
habit			
leaf	small to medium size, medium to dark green color (upper surface), light green color (lower surface), no hairs in both surfaces, circular shape, medium texture	medium size, light green color (upper surface), green color (lower surface), very few hairs 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	very low-low weight, conical with two middle size wings, loose or medium dense, berry skin with golden-green color with amber nuances in the sunny side of berry, soft flesh, neutral taste, no flesh coloration, use: wine, maturity: early (late August, Middle Friuli, North-Eastern Italy)	low weight, conical, with 1-2 wings, dense, berry skin with green-yellow color, soft flesh, neutral taste, no flesh coloration, use: wine, maturity: medium (early September at Udine, North-Eastern Italy)	low weight, conical, with 1-2 wings, medium dense, berry skin with green-yellow color, slightly firm flesh, neutral taste, no flesh coloration, use: wine, maturity: early (late August, Middle Friuli, North-Eastern Italy)
primocane and floricanes	oblate 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 small 8 mm)	oblate cross section, brownish color, lenticels: absent, medium internodes, diameter small (about 8 mm)
harvesting time	early (last decade August, Middle Friuli, North-Eastern Italy)	Early-medium (early September, Middle Friuli, North-Eastern Italy)	Early (end August, Middle Friuli, North-Eastern Italy)
resistances	resistant to winter temperature (−23° C.), resistant to downy mildew, tolerant to powdery mildew	Average resistance to winter temperature (−15° C.), 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 ‘FLEUR-

TAI’ is the female parent ‘Tocai Friulano’, to which a comparison has been provided above.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying photographs illustrate the overall appearance of the new grapevine ‘FLEURTAI’ 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 ‘FLEURTAI’.

FIG. 1A and FIG. 1B show a typical fruit cluster of ‘FLEURTAI’ taken on Aug. 25, 2012, in Udine, Italy.

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

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

FIG. 4 shows a close-up view of typical mature fruit of ‘FLEURTAI’ taken on Aug. 25, 2012, in Udine, Italy

DETAILED BOTANICAL DESCRIPTION

The following description of ‘FLEURTAI’ 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 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. ‘FLEURTAI’ has not been observed under all possible environmental conditions.

Characteristic	‘FLEURTAI’	‘TOCAI FRIULANO’ (unpatented)
GENERAL		
Resistance to pest/disease	Resistant to downy mildew, tolerant to powdery mildew	Susceptible to downy mildew and to powdery mildew
Resistance to natural elements	Resistant to winter cold down to −23° C.	Resistant to winter cold down to −15° C.
VINE		
Vigor	strong	strong
Trunk diameter	6 cm (6 yrs.-old plant)	6.5
Bark		
color	RHS 177B	Dark brown
underbark color	RHS 179B	Light brown
texture	n.a.	n.a.
Canes		
length	Internode length cm 10.5	Internode length about cm 10
width	8 mm	8 mm
Shoots		
shape	Erected, cross section: oblate, surface: with stripes, nodes and internodes without hairs	Semi-erected, cross section: circular, surface: smooth, nodes and internodes without hairs

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Characteristic	‘FLEURTAI’	‘TOCAI FRIULANO’ (unpatented)
color	internodes with red (RHS 185B) and green (RHS144B) pigmentation on both sides, nodes with red (RHS 185B) and green (RHS144B) dorsal side and green (RHS144B) ventral side	Internodes with green color on ventral and dorsal side, nodes with green ventral and dorsal side
<u>Tendrils</u>		
form	Bifid or trifid	bifid
color	RHS 145C	Green
texture	normal	normal
number	2 or <2 consecutive	2 or <2 consecutive
<u>Buds</u>		
size	average	average
shape	round	round
color	RHS 139C	Light brown
number	2/node	2/node
time of budbreak	early	early-medium
<u>LEAVES</u>		
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	Light green
Under surface	RHS 140B	green
Color (mature)		
Upper surface	RHS 141A	Medium green
Under surface	RHS 141B	Darker green
<u>Petiole</u>		
Length (cm)	6.2	6.0
Color (upper surface)	RHS 145C	green
Color (under surface)	RHS 145C and RHS180A	green
Stipule orientation	n.a.	n.a.
<u>FLOWERS</u>		
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)
Pistil Color	RHS 149A	
Stamen Color	RHS 4D	
Fragrance	average	average
Flower number (at 3 rd 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

-continued

Characteristic	‘FLEURTAI’	‘TOCAI FRIULANO’ (unpatented)
<u>Sepals</u>		
Length (cm)	n.a.	n.a.
Width (cm)	n.a.	n.a.
Overall shape	n.a.	n.a.
Color (immature)	n.a.	n.a.
10 Upper surface		
Under surface		
Color (mature)	n.a.	n.a.
Upper surface		
Under surface		
<u>Pedicel</u>		
15 Length (mm)	45 (cluster)	70
Color	RHS 145C	green
<u>FRUIT</u>		
Primocane time of fruiting (1 st pick)	August 25th	September 7th
<u>Clusters</u>		
cluster weight	g 170	g 230
cluster shape	conical	conical
cluster length	mm 180	medium
avg. berries per cluster	200	220
25 avg. clusters per shoot	2	2
<u>Berries</u>		
Berry size	Very low to low (g 1.8)	Very low to low (g 1.5)
30 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
35 Berry Skin Color (mature, at 19° Bx)	RHS 4D	green
Berry Flesh Color	RHS 149D	
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 166C	
Skin cracking?	no	rarely
Juice color	transparent	transparent
45 Berry taste	Neutral	neutral
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 ‘FLEUR-TAI’, as herein described and illustrated by the characteristics set forth above.

* * * * *

FIG. 1A

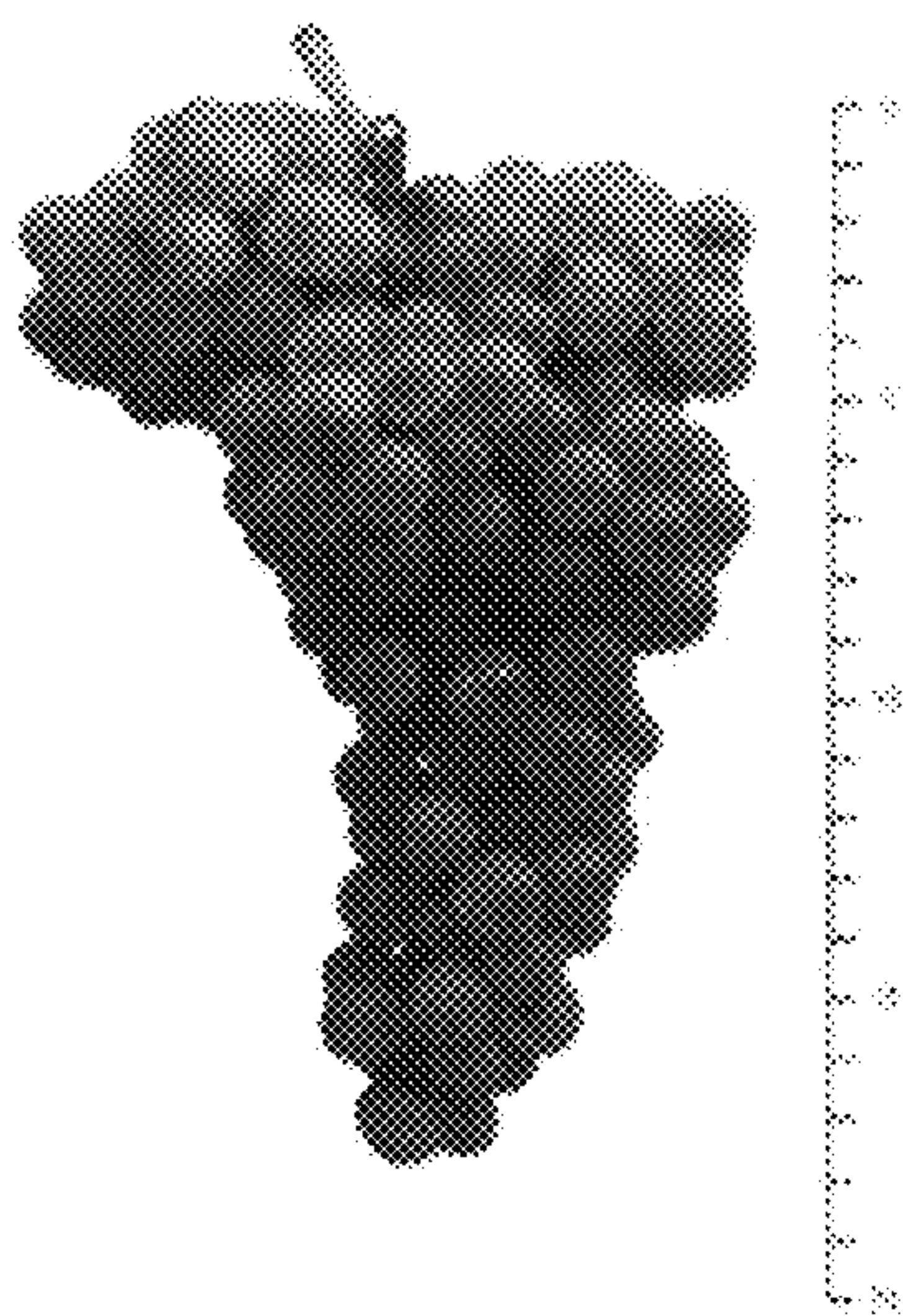


FIG. 1B

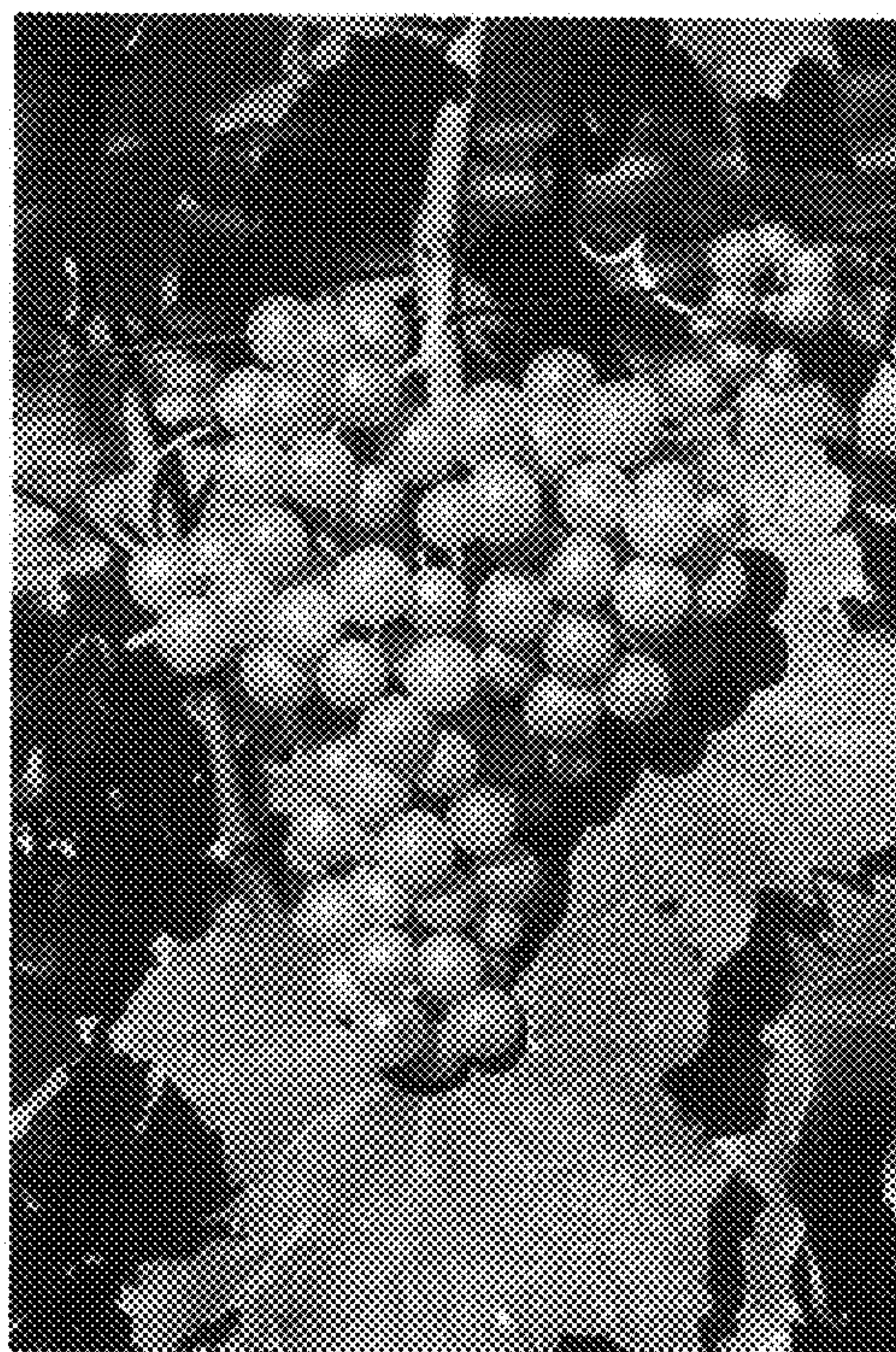


FIG. 2

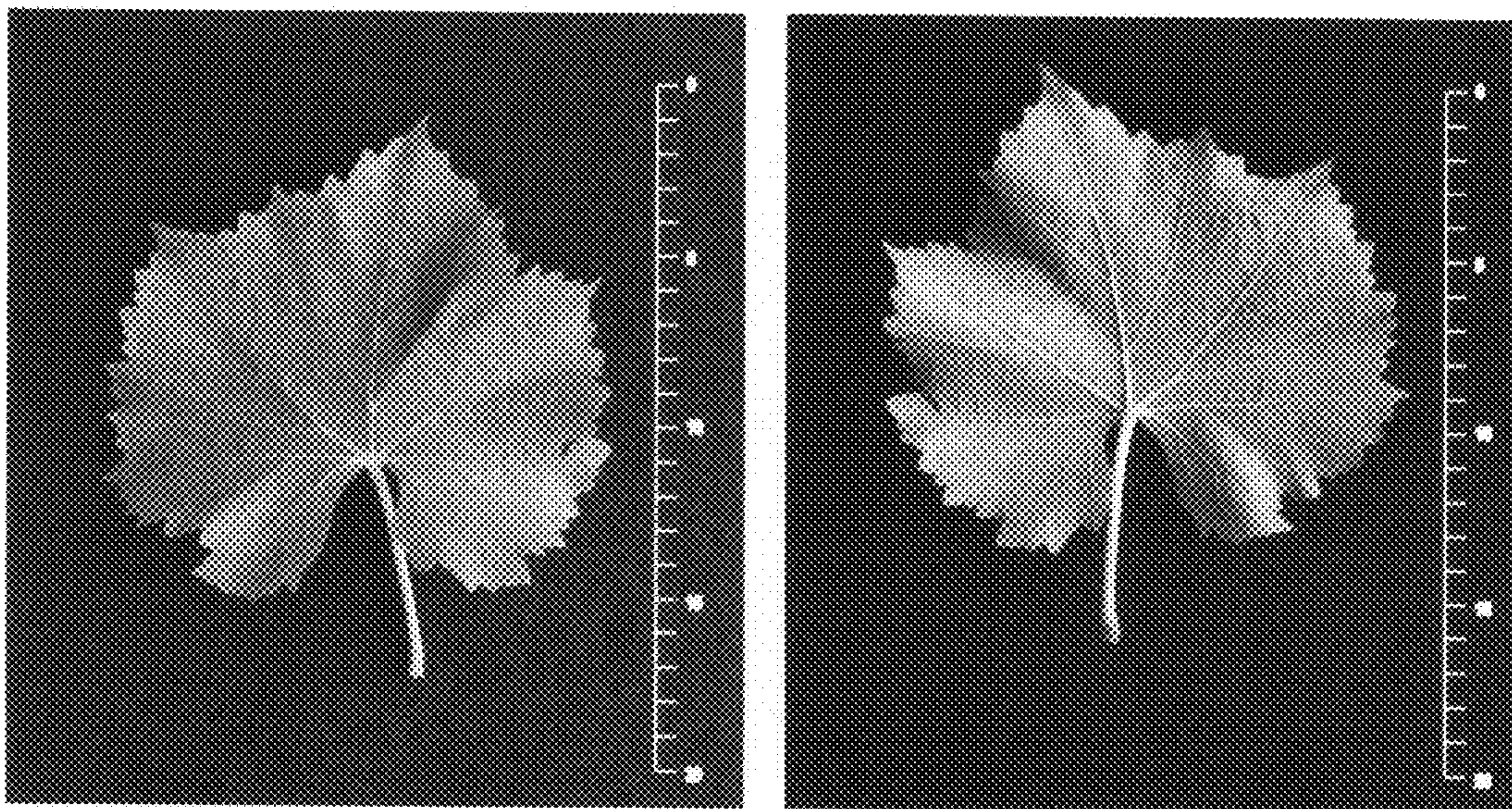


FIG. 3



FIG. 4

