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(12) **United States Plant Patent**
Amorao et al.(10) **Patent No.:** US PP18,575 P3
(45) **Date of Patent:** Mar. 11, 2008(54) **STRAWBERRY PLANT NAMED 'DRISCOLL OJAI'**(50) Latin Name: *Fragaria × ananassa*
Varietal Denomination: **Driscoll Ojai**(75) Inventors: **Amado Amorao**, Camarillo, CA (US);
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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 32 days.

(21) Appl. No.: **11/244,121**(22) Filed: **Oct. 4, 2005**(65) **Prior Publication Data**

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(51) **Int. Cl.**
A01H 5/00 (2006.01)(52) **U.S. Cl.** **Plt./208**(58) **Field of Classification Search** Plt./208,
Plt./209
See application file for complete search history.*Primary Examiner*—Kent Bell(74) *Attorney, Agent, or Firm*—Jones Day(57) **ABSTRACT**

This invention relates to a new and distinct variety of strawberry named 'Driscoll Ojai'. The variety is similar to the varieties 'Driscoll El Capitan' and 'Driscoll Venice'. The variety is distinguished from 'Driscoll El Capitan' and 'Driscoll Venice,' in particular, by its height, longer petiole length, longer fruiting truss length, open canopy density and moderate susceptibility to powdery mildew.

5 Drawing Sheets**1**

Latin name of the genus and species of the plant claimed:
The variety is botanically identified as *Fragaria × ananassa*.

Variety Denomination: The strawberry variety denomination is 'Driscoll Ojai'.

BACKGROUND OF THE INVENTION

The new variety originated as a result of a controlled cross between male cultivar 'Driscoll El Capitan' (U.S. Plant Pat. No. PP 14,005) and female cultivar 'Driscoll Venice' (U.S. Plant Pat. No. PP 14,062) in an ongoing breeding program, and was discovered as a seedling in Ventura County, Calif. in 1999. The original seedling of the new cultivar was asexually propagated by stolons in a Nursery in Shasta County, Calif. Propagules were transplanted to a controlled breeding plot in Ventura County, Calif., where the variety was identified and selected for further evaluation. 'Driscoll Ojai' was subsequently asexually propagated and underwent further testing in Ventura County, Calif. for four years. This propagation and testing has demonstrated that the combination of traits disclosed herein which characterize the new variety are fixed and retained true to type through successive generations of asexual reproduction.

SUMMARY OF THE INVENTION

The present invention relates to a new and distinct variety of strawberry named 'Driscoll Ojai'. The variety is botanically identified as *Fragaria × ananassa*. The new variety is distinguished from other varieties by a number of characteristics as set forth in Tables 1–4.

COMPARISON TO SIMILAR VARIETIES

The varieties which we believe to be similar to 'Driscoll Ojai' from those known to us are 'Driscoll El Capitan' (U.S. Plant Pat. No. PP 14,005) and 'Driscoll Venice' (U.S. Plant

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Pat. No. PP 14,062). There are several characteristics of the new variety that are different from, or not possessed by 'Driscoll El Capitan' and 'Driscoll Venice'. For example, the new variety is taller, has a longer petiole length, a longer fruiting truss length, an open canopy density and is moderately susceptible to powdery mildew. Additional characteristics of 'Driscoll Ojai' include a strong sweetness with a seasonal average brix of 9.3. Furthermore, additional petal characteristics of 'Driscoll Ojai' include an orbicular petal shape, a rounded petal apex, an entire petal margin, a concavo-convex petal base and a typical and observed petal number of 5. Additional sepal characteristics of 'Driscoll Ojai' include an elliptic sepal shape and a typical and observed sepal number of 10. The sepal apex of 'Driscoll Ojai' can be either convex or complex and the sepal margin of 'Driscoll Ojai' can be either entire or serrate. Additional leaf characteristics of 'Driscoll Ojai' include a typical and observed rounded leaflet shape and a rounded leaf apex.

'Driscoll Ojai' is distinguished from its parent, 'Driscoll El Capitan' and 'Driscoll Venice' as indicated in Tables 1–4.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying photographs show typical specimens of the new variety, including fruit, foliage and flowers, in color as nearly true as it is reasonably possible to make in color illustrations of these characteristics.

FIG. 1 shows the whole the plant.

FIG. 2 shows the upper side of the leaves of the plant.

FIG. 3 shows the under side and upper side of the flowers.

FIG. 4 shows a close-up of the fruit.

FIG. 5 shows the fruit in longitudinal cross-section.

DESCRIPTION OF THE NEW VARIETY

The following detailed description of the new variety is based upon observations taken of plants harvested from a nursery in Bonanza, Oreg. in September and October, 2004 and held in cold storage until planting in Ventura County, Calif. in October, 2004. Plants were grown in raised beds of soil under conditions typical of commercial strawberry production in Ventura County, Calif. Fruits were harvested twice weekly from January, 2005 to May, 2005 for yield determination. Observations of 'Driscoll Ojai', 'Driscoll El Capitan', and 'Driscoll Venice' were made in side by side comparison in April, 2005. Color designations, color descriptions, and other phenotypical descriptions may deviate from the stated values and descriptions depending upon variation in environmental, seasonal, climatic and cultural conditions. Colors are described and the most similar color designations are provided from the Royal Horticultural Society (RHS) Colour Chart.

PROPAGATION

The new variety is principally propagated by way of stolons. Although propagation by stolons is presently preferred, other known methods of propagating strawberry plants may be employed.

CHARACTERISTICS OF THE NEW VARIETY

Information on the new variety is presented in Tables 1, 2, 3 and 4. In the tables, the flowers described are secondary flowers except where indicated. The fruit described is the secondary fruit on seven months old plants. Fruit and flower measurements are an average of both primary and secondary fruit and flowers.

Table 1 provides information on the plant and fruit characteristics of the new variety 'Driscoll Ojai' compared with characteristics of 'Driscoll El Capitan' and 'Driscoll Venice'. Table 2 provides additional information of the plant and fruit characteristics of the new variety 'Driscoll Ojai' compared with characteristics of the varieties 'Driscoll El Capitan' and 'Driscoll Venice'. Table 3 provides reactions of the new variety to stresses, pests and diseases compared with reactions of the varieties 'Driscoll El Capitan' and 'Driscoll Venice'. Table 4 provides isozyme characteristics of the new variety as compared to that of the varieties 'Driscoll El Capitan' and 'Driscoll Venice'.

TABLE 1

	'Driscoll Ojai'	'Driscoll El Capitan'	'Driscoll Venice'
<u>Plant Characteristics</u>			
Height of Plant (cm)	22.6	20.8	18.5
Spread of Plant (cm)	32.1	31.0	31.5
Number of Crowns	4.1	4.0	3.2
<u>Leaf Characteristics</u>			
Terminal Leaflet Length (cm)	7.4	6.7	6.3
Terminal Leaflet Width (cm)	7.0	6.0	6.5
Terminal Leaflet	1.06	1.12	0.96
<u>QUANTITATIVE COMPARISON OF 'DRISCOLL OJAI', 'DRISCOLL EL CAPITAN' AND 'DRISCOLL VENICE'</u>			
<u>Quantitative Comparison of 'Driscoll Ojai', 'Driscoll El Capitan' and 'Driscoll Venice'</u>			
	'Driscoll Ojai'	'Driscoll El Capitan'	'Driscoll Venice'
<u>Stolon Characteristics</u>			
Anthocyanin color	61C purple red	58A purple red	58A purple red
Diameter at bract (mm)	3.16	2.51	2.51
Avg. # of Daughter plants	62 (2003 Nursery)	61.8 (2002 Nursery)	71 (2002 Nursery)
<u>Flower Characteristics</u>			
Petal Length (cm)	1.28	1.31	1.40
Petal Width (cm)	1.23	1.28	1.32
Petal Length/Width Ratio	1.04	1.02	1.06
Flower Diameter (cm)	2.35	2.37	2.6
Calyx Diameter (cm)	4.3	4.24	4.94
Sepal Length (mm)	19.6	18.6	20.9
Sepal Width (cm)	9.49	8.33	9.67
Color of Upper and Lower	155C	155C	155C
Surface of Petal	white	white	white
Receptical Color	1A yellow	7A yellow	7A yellow
Anther Color	12A yellow	13A yellow	13A yellow
Fruiting Truss Length (cm)	27.9	24.8	18.2
<u>Fruit Characteristics</u>			
Fruit Length (cm)	4.6	4.3	4.5
Fruit Width (cm)	3.7	3.3	4.2
Fruit Length/Width Ratio	1.27	1.32	1.06
Average Berry Weight (g)	26.8	26.3	30.6
External Color	46A dark red	53A dark red	45A medium red
Internal Color	42B medium red	43A red	34A and 155C orange red and white
Achene Coloration	59B to 9A dark red to yellow	60A to 151A dark red to yellow green	60A to 15B dark red to yellow
2003 Marketable Yield (g/plant)	712	661	592

TABLE 1-continued

TABLE 2

	'Driscoll Ojai'	'Driscoll El Capitan'	'Driscoll Venice'
<u>Plant</u>			
Habit	globose	globose	globose
Canopy Density	open	medium dense	medium dense
Vigor	strong	medium	medium
<u>Leaf</u>			
Shape in cross section	concave	slightly concave	slightly concave
Interveinal blistering	strong	strong	strong
Glossiness	medium	strong	strong
Number of leaflets	three only	three only	three only
Terminal leaflet margin profile	crenate	crenate	crenate
Terminal leaflet shape of base	rounded	rounded	rounded
Terminal leaflet shape of teeth	obtuse	obtuse	obtuse
Stipule pubescence	medium	sparse to medium	medium
Petiole pubescence	dense	dense	dense
Petiole pose of hairs	outwards	outward to downward	outward to downward
<u>Stolon</u>			
Anthocyanin coloration	weak	medium to strong	medium
Thickness	medium	thin	medium
Pubescence	weak	sparse to medium	medium to dense
<u>Inflorescence</u>			
Position relative to foliage	above	above	level to above
Diameter of calyx relative to corolla on secondary flowers	larger	larger	larger
Diameter of inner calyx relative to outer on secondary flowers	larger	smaller to same size	smaller
Spacing of petals	touching	overlapping	touching to overlapping
<u>Fruiting Truss</u>			
Attitude at first picking	prostrate	prostrate	prostrate
<u>Fruit</u>			
Predominant shape	almost cylindrical	cordate	cordate
Difference in shapes between primary and secondary fruits	moderate	marked	slight
Band without achenes	narrow	very narrow	very narrow
Unevenness of surface	weak to medium	weak to medium	weak
Evenness of color	even	slightly uneven to even	slightly uneven to even
Glossiness	strong	strong	medium to strong
Insertion of achenes	level with surface	below to level with the surface	level with surface
Insertion of calyx	level	in a basin to level	level to set above
Pose of the calyx segments	spreading to reflexed	reflexed	reflexed
Size of calyx in relation to fruit on secondary fruit	same size	larger	larger
Adherence of calyx	medium to strong	strong	strong
Firmness of flesh	firm	firm	medium
Evenness of flesh color	slightly uneven	even	uneven
Distribution of flesh color	marginal and central	marginal and central	only marginal

TABLE 2-continued

	'Driscoll Ojai'	'Driscoll El Capitan'	'Driscoll Venice'
Hollow center size	medium	large	small to medium
Sweetness	strong	strong	strong
Texture when tasted	fine to medium	fine	medium
Acidity	medium	medium	weak
Time of First Flowering After Planting in 2004	mid-December	mid-December	late December
Harvest Interval in 2005	late January	late January	late January
Type of Bearing	January to late-May	late-May	late-May
	partially everbearing	partially everbearing	partially everbearing

REACTION TO STRESS, PESTS, AND DISEASE

TABLE 3

	REACTIONS TO STRESS PESTS AND DISEASES FOR 'DRISCOLL OJAI', 'DRISCOLL EL CAPITAN' AND 'DRISCOLL VENICE'		
	'Driscoll Ojai'	'Driscoll El Capitan'	'Driscoll Venice'
<u>Reaction to Pests</u>			
<i>Tetranychus urticae</i>	moderately resistant	moderately resistant	moderately resistant
<i>Lygus hesperus</i>	susceptible	susceptible	susceptible
<u>Reaction To Diseases</u>			
Botrytis fruit rot	moderately susceptible	moderately susceptible	moderately susceptible
Powdery mildew	moderately susceptible	moderately resistant	moderately resistant
<i>Verticillium</i> wilt	susceptible	susceptible	susceptible
Strawberry Mottle Virus	moderately resistant	moderately resistant	moderately resistant
<i>Xanthomonas fragariae</i>	moderately susceptible	moderately susceptible	moderately susceptible

ISOZYME ANALYSIS

In addition to the morphological description above, the new cultivar 'Driscoll Ojai' has been analyzed to obtain an indication of its genetic makeup to provide further means for identifying the new variety and distinguishing it from other somewhat similar and/or related strawberry varieties. Specifically, leaf samples of 'Driscoll Ojai', 'Driscoll El Capitan' and 'Driscoll Venice' were analyzed by electrophoresis for isozyme patterns of the enzymes phosphoglucoisomerase ("PGI"), leucine aminopeptidase ("LAP") and phosphoglucomutase ("PGM"). See J. Amer. Soc. Hort. Sci. 106:684-687. Isozyme characterization of the three varieties is presented in Table 4, with the letters representing the banding patterns for each enzyme as designated in the above-identified article.

TABLE 4

ISOZYME ANALYSIS FOR 'DRISCOLL OJAI',
'DRISCOLL EL CAPITAN' AND 'DRISCOLL VENICE'

Locus	'Driscoll Ojai'	'Driscoll El Capitan'	'Driscoll Venice'
PGI	A1	A2	A4
LAP	B3	B3	B3
PGM	C2	C4	C2

What is claimed:

1. A new and distinct variety of strawberry plant, substantially as shown and described.

* * * * *



FIG. 1

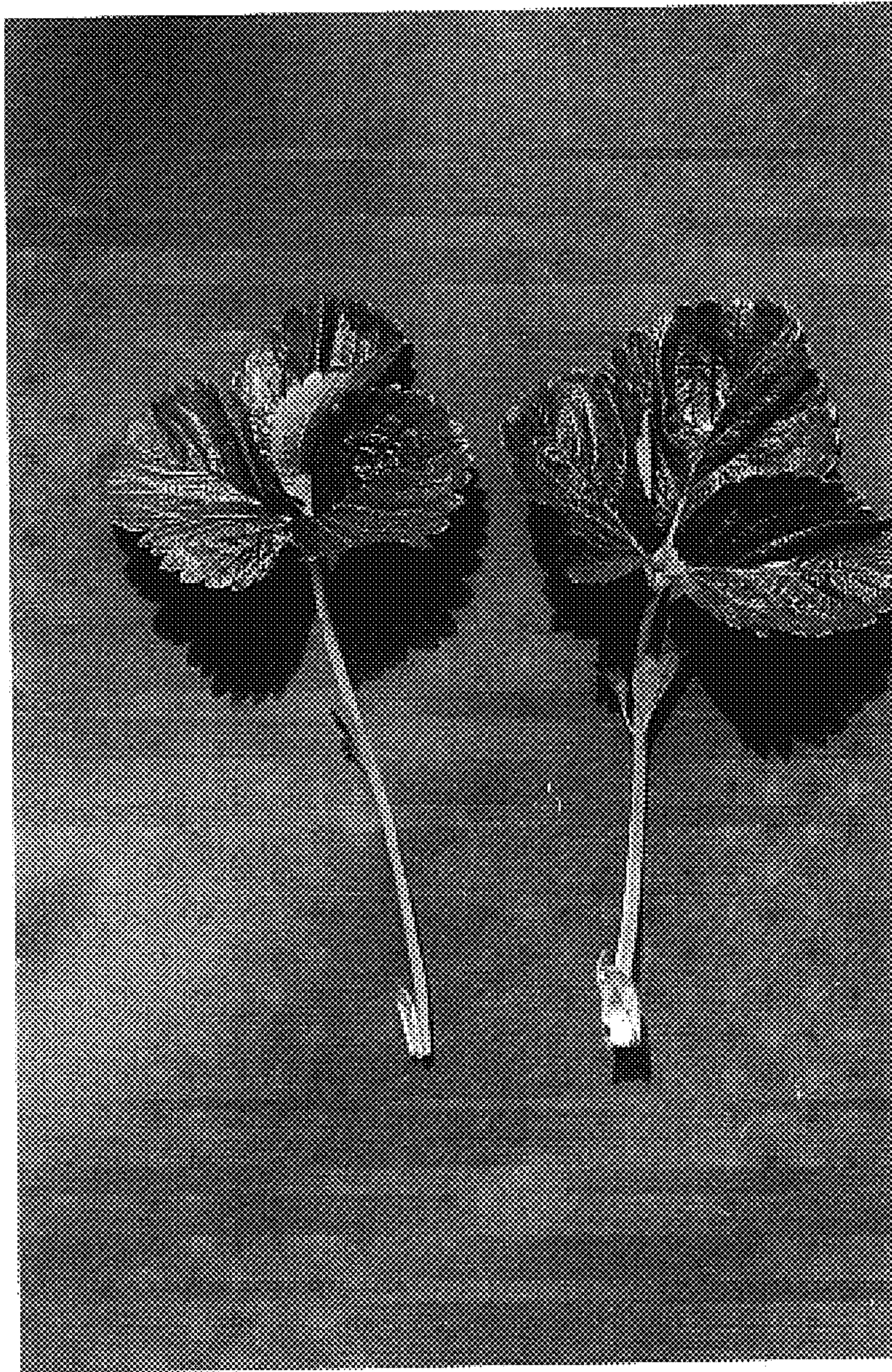


FIG. 2



FIG. 3

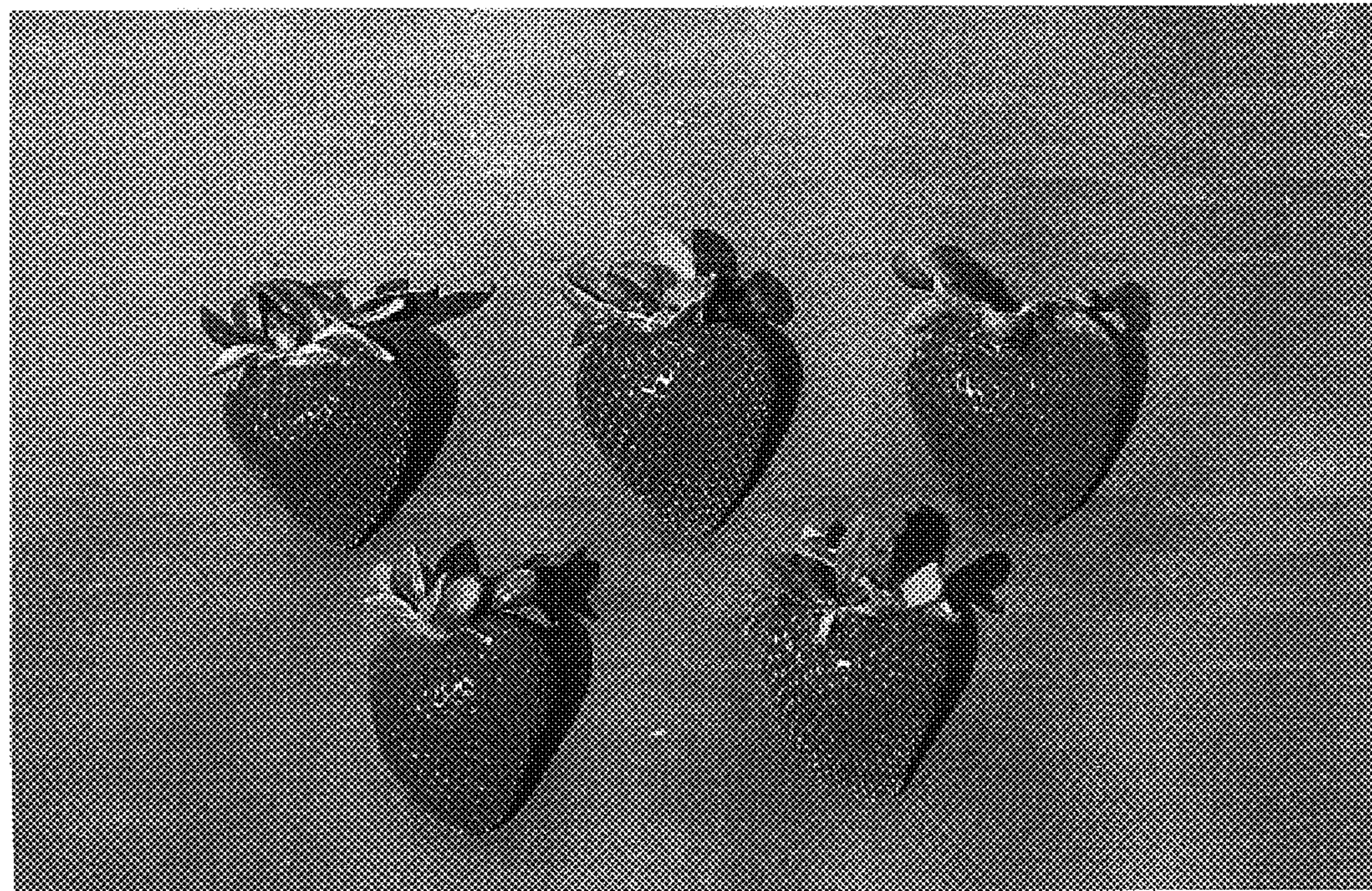


FIG. 4



FIG. 5