US00PP20309P2

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

(10) **Patent No.: US PP20,309 P2**
(45) **Date of Patent: Sep. 15, 2009**

(54) **STRAWBERRY PLANT NAMED 'PREMIER'**

(50) Latin Name: ***Fragaria ananassa***
Varietal Denomination: **PREMIER**

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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 0 days.

(21) Appl. No.: **12/218,466**

(22) Filed: **Jul. 15, 2008**

(51) **Int. Cl.**
A01H 5/00 (2006.01)

(52) **U.S. Cl.** **Plt./209**
(58) **Field of Classification Search** Plt./208, Plt./209
See application file for complete search history.

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(57) **ABSTRACT**

This invention relates to a new and distinct variety of strawberry plant named 'PREMIER'. This new strawberry plant named 'PREMIER' is primarily adapted to the growing conditions of the central coast of California, and is primarily characterized by its medium red fruit color; large fruit size; conical to ovate fruit shape; large calyx; medium sized plant; medium to dark green foliage color; medium sized foliage; short fruiting trusses; and strong pubescence of the fruiting truss.

5 Drawing Sheets

Latin name of the genus and species of the plant claimed: *Fragaria ananassa.*
Variety denomination: 'PREMIER'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct strawberry variety named 'PREMIER'. This new variety is a result of a controlled cross made in 2001 between strawberry variety designated 'PS-1269' (patented, U.S. Plant Pat. No. 10,686) and strawberry variety designated 'PS-3003' (unpatented) in an ongoing breeding program. The variety is botanically known as *Fragaria ananassa.* The new variety is distinguished from its parents primarily in fruit color.

The seedling resulting from the aforementioned cross was selected from a controlled breeding plot in Ventura County, Calif. in the fall of 2003. After its selection, the new variety was asexually propagated by stolons in a nursery located in San Joaquin County, Calif. The new variety was extensively tested over the next several years in fruiting fields in Ventura County, Calif. This propagation has demonstrated that the combination of traits disclosed herein as characterizing the new variety are fixed and remain true to type through successive generations of asexual reproduction.

BRIEF SUMMARY OF THE INVENTION

'PREMIER' is primarily adapted to the climate and growing conditions of the central coast of California. This region provides the necessary winter temperatures required for it to produce a strong vigorous plant and to remain in fruit production from October through December. The nearby Pacific Ocean provides the needed humidity and moderate temperatures to maintain fruit quality during the fall production months.

The following traits have been repeatedly observed and are determined to be unique characteristics of 'PREMIER',

which in combination distinguish this strawberry plant as a new and distinct variety:

1. Medium red fruit color;
2. Large fruit size;
3. Conical to ovate fruit shape;
4. Large calyx;
5. Medium sized plant;
6. Medium to dark green foliage color;
7. Medium sized foliage;
8. Short fruiting trusses; and
9. Strong pubescence of the fruiting truss.

The strawberry variety that is believed to be most closely related to the new strawberry variety 'PREMIER' is 'PS-2880' (patented, U.S. Plant Pat. No. 15,597). In comparison to the similar strawberry variety 'PS-2880', the new strawberry variety 'PREMIER' differs by the following combination of characteristics as described in Table 1:

TABLE 1

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
1. Color of mature fruit	Medium red	Red
2. Average fruit weight (gm)	24.7	20.7
3. Predominant fruit shape	Conical to ovate	Conical to wedged
4. Marketable yield (gm/plt)	381	457
5. Unevenness of fruit surface	Absent or very weak	Medium to strong
6. Insertion of achenes	Level with the surface	Above the surface
7. Attitude of calyx	Spreading	Spreading to reflexed
8. Plant size	Medium	Medium to large

TABLE 1-continued

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
9. Foliage color (upper surface)	Medium to dark green	Medium to light green
10. Petiole pubescence	Sparce	Moderate
11. Fruiting truss length (cm)	20.3	27.1
12. Fruiting truss pubescence	Strong	Medium

For identification a series of AFLP molecular markers have been determined for this new variety.

BRIEF DESCRIPTIONS OF THE PHOTOGRAPHS

The accompanying color photographs illustrate the overall appearance of typical specimens of the new strawberry variety 'PREMIER', at various stages of development as true as it is reasonably possible with color reproductions of this type. Color in the photographs may differ slightly from the color value cited in the botanical description which accurately describe the color of 'PREMIER'. The depicted plant and plant parts of the new strawberry variety 'PREMIER' were taken in Ventura County, Calif., and are approximately 3 to 4 months old:

FIG. **1** shows typical fruiting field characteristics of 'PREMIER' taken in the month of October 2007.

FIG. **2** shows a close-up view of typical leaf structure of 'PREMIER' taken in the month of November 2007.

FIG. **3** shows typical mature and immature fruit of 'PREMIER' taken in the month of October 2007.

FIG. **4** shows a close-up view of mature fruit of 'PREMIER' taken in the month of October 2007.

FIG. **5** shows typical internal and external mature fruit characteristics of 'PREMIER' taken in the month of October 2007.

DETAILED BOTANICAL DESCRIPTION

'PREMIER' has not been observed under all possible environmental conditions. The characteristics of the new variety may vary in detail, depending upon variations in environmental factors, including weather (temperature, humidity and light intensity), day length, soil type and location.

The aforementioned photographs, together with the following description of the new variety 'PREMIER', unless otherwise noted, is based on observations taken during the 2007 growing season in Ventura County, Calif. These measurements and ratings were taken from plants of 'PREMIER' dug from a low-elevation nursery located in San Joaquin County, Calif. during late January 2007 and planted approximately 6 months later in Ventura County, Calif. The approximate age of the observed plants is 3 to 4 months. Yield observations and fruit quality characteristics are averaged from four years of data collected from the 2004 through 2007 growing seasons. Flower measurements and characteristics are from secondary flowers unless otherwise noted. Fruit characteristics and measurements are from secondary fruit unless otherwise noted.

Color terminology where noted follows the Munsell Book of Colors, Munsell Colors, Baltimore, Md. (1976).

The following tables 2–8 describe fruit, plant, stolon, foliage, fruiting truss, flower and pest disease characteristics of the new strawberry 'PREMIER' in comparison to the similar strawberry variety 'PS-2880' (patented, U.S. Plant Pat. No. 15,597).

TABLE 2

FRUIT CHARACTERISTICS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Color of mature fruit	7.5R 3/8 to 4/10 Medium red	7.5R 4/8 to 3/8 Red
Color of internal flesh	7.5R 3/12 to 4/12 Medium red	7.5R 3/12 to 4/12 Medium red
Length (cm)	4.5	4.7
Width (cm)	3.8	3.6
Ratio length/width	1.20 Slightly longer than broad	1.29 Slightly longer than broad
Calyx diameter (cm)	6.0	5.4
Average weight (gm)	24.7	20.7
Achene color	5Y 6/8 to 7.5R 3/8 Ranges from medium yellow to medium red	5Y 6/8 to 7.5R 3/8 Ranges from medium yellow to medium red
Achene weight (mg)	0.50	0.53
Achenes per berry	358	364
Marketable yield (gm/plt)	381	457
Fruit size	Large	Medium
Predominant shape	Ranges from conical to ovate	Ranges from conical to wedged
Difference in shapes between primary and secondary fruit	None or very slight	Moderate
Band without achenes	Absent or very narrow	Absent or very narrow
Unevenness of surface	Absent or very weak	Medium to strong
Evenness of color	Ranges from slightly uneven to even	Ranges from even to slightly uneven
Glossiness	Ranges from medium to strong	Ranges from medium to strong
Insertion of achenes	Level with the surface	Above the surface
Insertion of calyx	In the basin	Ranges from in the basin to level with the fruit
Attitude of the calyx	Spreading	Ranges from spreading to reflexed
Size of calyx in relation to fruit diameter	Much larger	Slightly larger
Adherence of calyx	Strong	Weak
Firmness of skin	Medium	Medium
Firmness of flesh	Medium	Firm
Distribution of red color of the flesh	Marginal and central	Marginal and central
Hollow center expression	Weak	Ranges from strong to moderate
Flavor	Fair	Fair to good
Soluble solids (% brix)	7.4	7.7
Time of first flowering	Medium	Ranges from early to medium
Time of first harvesting	Medium	Ranges from early to medium
Harvest period	Late September to mid December	Late September to mid December
Type of bearing	Fully everbearing	Fully everbearing

TABLE 3

PLANT CHARACTERISTICS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Height (cm)	20.6	26.4
Spread (cm)	35.3	35.8
Size	Medium	Ranges from medium to large
Habit	Globose	Globose

TABLE 3-continued

PLANT CHARACTERISTICS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Density	Medium	Medium
Vigor	Medium	Ranges from medium to strong

TABLE 4

STOLON CHARACTERISTICS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Average number per plant	10.0	5.3
Anthocyanin intensity	Ranges from weak to medium	Medium
Anthocyanin coloration	7.5R 4/8 to 5/8	7.5R 4/6 to 5/6
Diameter at bract (mm)	3.8	3.3
	Thick	Ranges from medium to thick
Pubescence	Medium	Strong

TABLE 5

FOLIAGE CHARACTERISTICS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Foliage:		
Color of upper surface	7.5GY 2/4 to 3/4	7.5GY 3/4 to 4/4
	Ranges from medium to dark green	Ranges from light to medium green
Color of under side	5GY 5/4 to 6/4	5GY 5/4 to 6/4
	Light grey green	Light grey green
Shape in cross section	Slightly concave	Ranges from slightly concave to flat
Interveinal blistering	Medium	Ranges from medium to strong
Glossiness	Ranges from medium to strong	Ranges from medium to strong
Number of leaflets	Three	Three
Terminal Leaflet:		
Length (cm)	8.3	10.3
Width (cm)	8.1	8.8
Length/width ratio	1.02	1.18
Serrations/leaf	22.8	22.9
Size	Medium	Ranges from medium to large
Shape of base	Obtuse	Acute
Shape of teeth	Obtuse	Obtuse
Petiole:		
Petiole color	2.5GY 5/6 to 5/8	5GY 6/6 to 7/6
	Medium yellow green	Medium yellow green
Length (cm)	12.0	13.9
Diameter (mm)	4.2	4.3
Petiolule color	2.5GY 5/6 to 5/8	5GY 6/6 to 7/6
	Medium yellow green	Medium yellow green
Petiolule length (mm)	10.3	15.3
Pubescence	Sparce	Moderate
Attitude of hairs	Slightly outward	Slightly outward

TABLE 5-continued

FOLIAGE CHARACTERISTICS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Stipule:		
Color	2.5GY 5/6 to 6/6	2.5GY 5/6 to 6/6
	Medium yellow green	Medium yellow green
Length (mm)	26.1	26.3
Width (mm)	12.3	9.2
Anthocyanin intensity	Medium	Absent or very weak
Anthocyanin color	10RP 4/8 to 4/10	10RP 5/6 to 5/8
	Red purple	Red purple
Length (cm)	20.3	27.1
Flower position relative to foliage	Ranges from level with to beneath the foliage	Level with the foliage
Anthocyanin intensity	Medium	Weak
Anthocyanin color	10RP 4/8 to 5/8	10RP 5/6 to 6/6
	Red purple	Red purple
Pubescence	Strong	Medium
Attitude at first pick	Prostrate	Prostrate

TABLE 6

FRUITING TRUSS CHARACTERISTICS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Length (cm)	20.3	27.1
Flower position relative to foliage	Ranges from level with to beneath the foliage	Level with the foliage
Anthocyanin instensity	Medium	Weak
Anthocyanin color	10RP 4/8 to 5/8	10RP 5/6 to 6/6
	Red purple	Red purple
Pubescence	Strong	Medium
Attitude at first pick	Prostrate	Prostrate

TABLE 7

FLOWER CHARACTERISTICS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Petal color	N 9.5/90.0% R to 9.25/84.2% R	N 9.5/90.0% R to 9.25/84.2% R
	White	White
Corolla diameter (mm)	32.7	33.6
Calyx diameter (mm)	39.5	34.1
Petal length (mm)	12.8	13.0
Petal width (mm)	12.7	13.8
Petal length/width ratio	1.01	0.95
Petals/flower	5.4	6.5
Sepal color	5GY 3/6 to 4/6	5GY 4/4 to 4/6
	Medium yellow green	Medium yellow green
Sepal length (mm)	15.6	12.3

TABLE 7-continued

FLOWER CHARACTERISTICS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Sepal width (mm)	7.1	4.4
Sepal length/width ratio	2.21	2.78
Sepals/flower	10.8	12.3
Size of calyx relative to corolla	Larger	Ranges from same size to larger
Size of inner calyx relative to outer calyx	Smaller	Smaller
Relative position of petals	Overlapping	Overlapping

TABLE 8

PEST AND DISEASE REACTIONS

Characteristic	'PREMIER'	'PS-2880' (U.S. Plant Pat. No. 15,597)
Two spotted spider mite	Moderately susceptible	Moderately susceptible
Lygus bug	Susceptible	Susceptible
Flower thrips	Moderately susceptible	Moderately susceptible
Powdery mildew	Susceptible	Susceptible
Botrytis fruit rot	Moderately susceptible	Moderately susceptible
Angular leaf spot	Moderately susceptible	Susceptible

We claim:

1. A new and distinct strawberry plant named 'PREMIER', as herein described and illustrated by the characteristics set forth above.

* * * * *

FIG. 1

FIG. 2

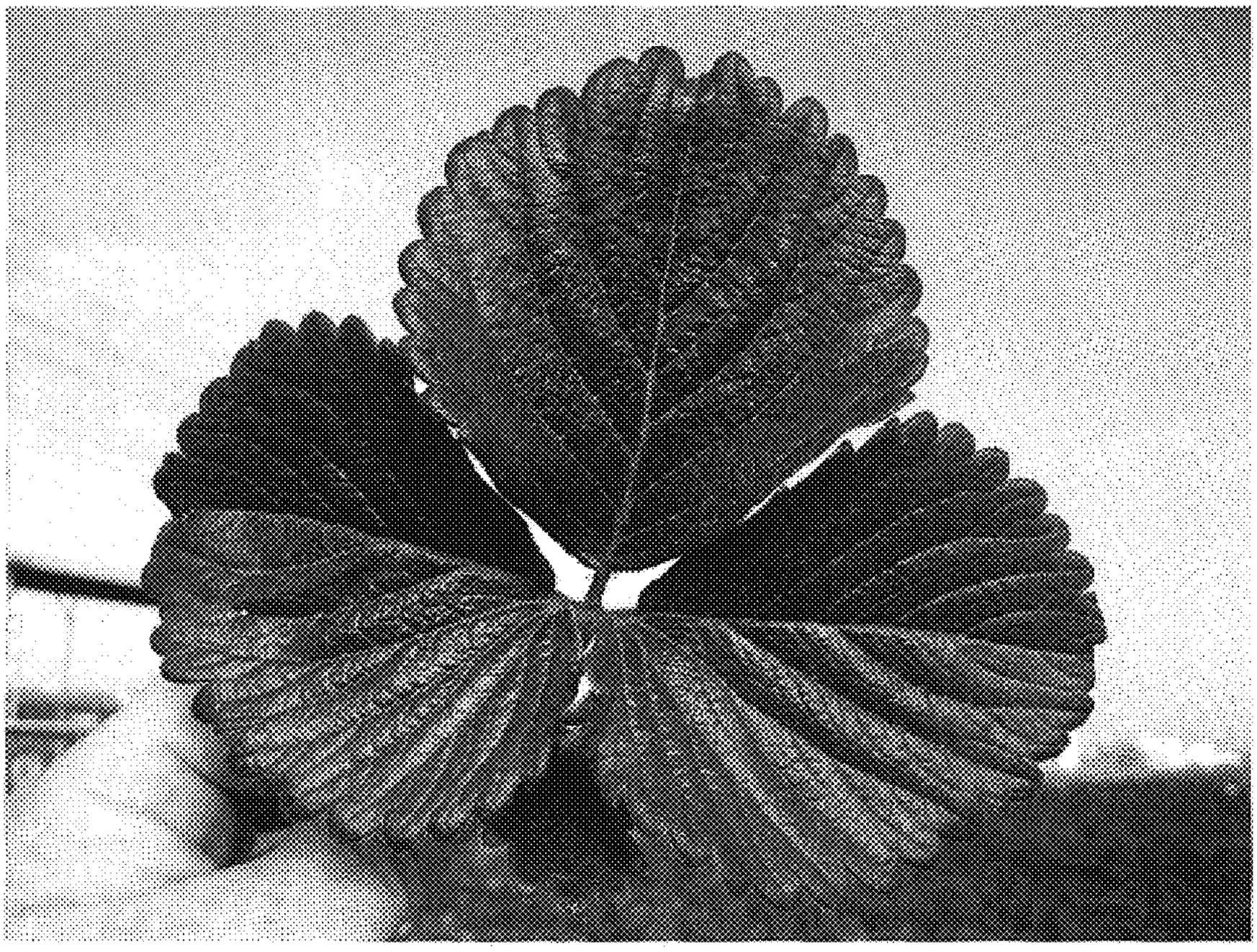

FIG. 3

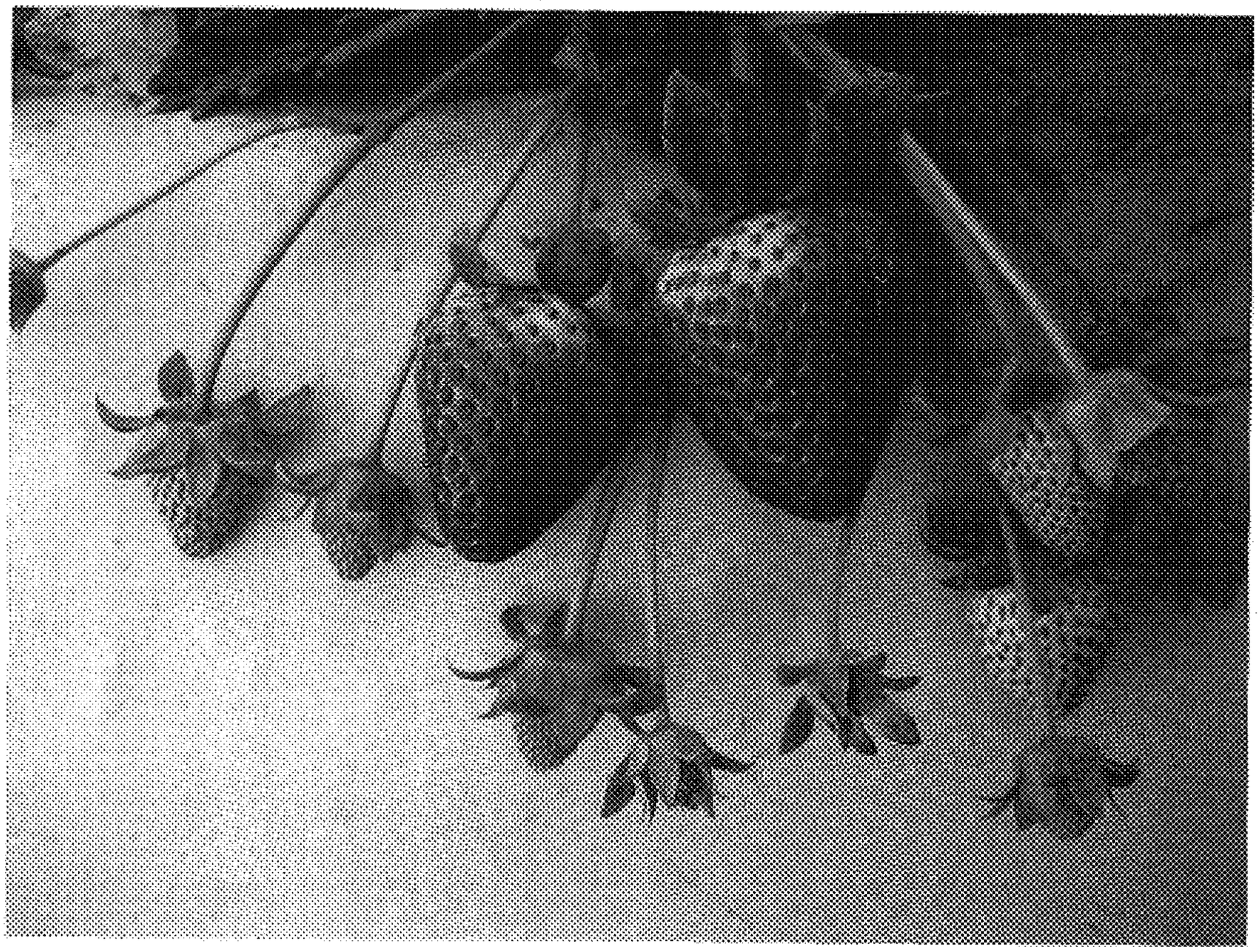

FIG. 4

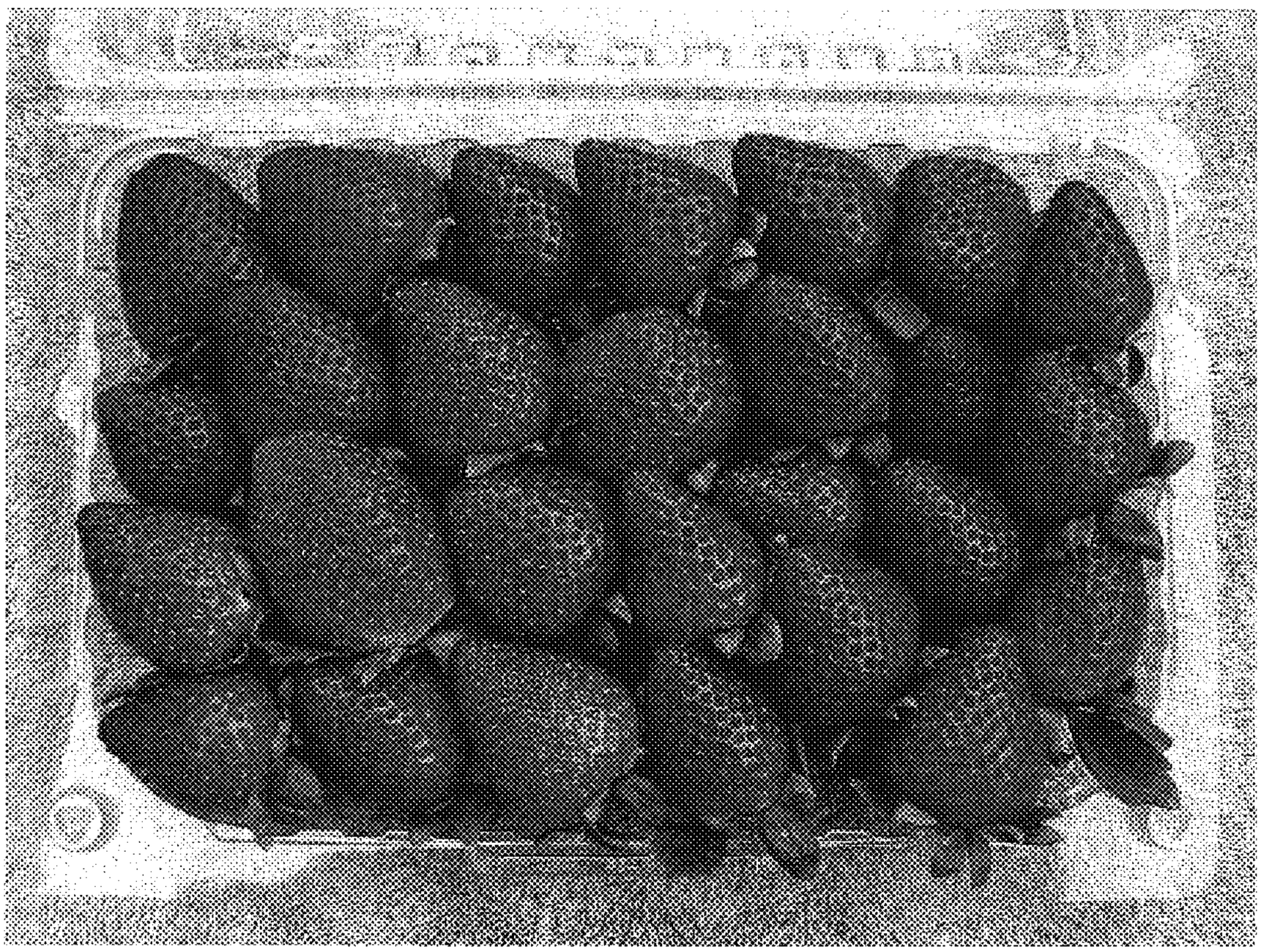

FIG. 5