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Ferguson et al.

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

(50) Latin Name: ***Fragaria×ananassa***
Varietal Denomination: **DrisStrawThirteen**

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(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 cultivar of strawberry plant named 'DrisStrawThirteen.' The new cultivar is primarily characterized by having large-sized, fruit with strong sweetness and weak acidity and having a plant with resistance to powdery mildew and moderate resistance to Strawberry Mottle Virus, wind, drought, high temperatures, high pH, high soil salt levels and water logging.

3 Drawing Sheets

Genus and species: *Fragaria×ananassa.*
Variety denomination: 'DrisStrawThirteen'.

BACKGROUND OF THE NEW PLANT

The present invention relates to a new and distinct strawberry cultivar designated 'DrisStrawThirteen' and botanically known as *Fragaria×ananassa*. This new strawberry cultivar was discovered in Ventura, Calif. in October 2005 and originated from a cross between the proprietary female parent '2K297' (unpatented) and the male parent 'Driscoll Ojai' (U.S. Plant Pat. No. 18,575). The original seedling of the new cultivar was first asexually propagated at a nursery in Shasta County, Calif.

'DrisStrawThirteen' was subsequently asexually propagated in Shasta County, Calif. and underwent further testing in Ventura County, Calif. for four years. The present invention has been found to retain its distinctive characteristics through successive asexual propagations via stolons and tissue culture.

DESCRIPTION OF THE PHOTOGRAPHS

The accompanying color photographs show typical specimens of the new cultivar at various stages of development as nearly true as it is possible to make in color reproductions. The photographs were taken from 6-month-old plants.

FIG. **1** shows overall plant habit including fruit at various stages of development.

FIG. **2** shows leaves of the plant with three leaflets.

FIG. **3** shows both the upper side and underside of several of the flowers.

FIG. **4** shows the whole fruit.

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

DESCRIPTION OF THE NEW CULTIVAR

The following description of 'DrisStrawThirteen' is based on observations taken in Ventura, Calif. from 2005 to 2009.

This description is in accordance with UPOV terminology. 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. 'DrisStrawThirteen' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawThirteen' was taken from 6-month-old plants and the botanical descriptions of the comparison varieties, 'Driscoll Ojai' and 'Driscoll El Dorado' (U.S. Plant Pat. No. 16,238), were also taken from 6-month-old plants. Color terminology follows The Royal Horticultural Society Colour Chart, London (R.H.S.) (2001).

DETAILED BOTANICAL DESCRIPTION

Table 1 shows selected plant characteristics of the new variety compared with plant characteristics of 'Driscoll Ojai' and 'Driscoll El Dorado.' Plant characteristics include plant habit, terminal leaflet margin profile, insertion of achenes, and fruit production.

TABLE 1

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Plant habit	Globose	Globose	Flat globose
Terminal leaflet margin profile	Revolute to flat	Revolute	Revolute and flat
Insertion of achenes	Level with surface	Level with surface	Below surface
Fruit production, grams/plant	473.7	435.4	707.8

Table 2 shows plant characteristics of the new variety compared with plant characteristics of the commercial varieties 'Driscoll Ojai' and 'Driscoll El Dorado.' Plant characteristics include plant height, diameter, number of crowns per plant, habit, the density of individual plants and the vigor.

TABLE 2

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Plant height (cm)	20.6	22.9	19.0
Plant diameter (cm)	36.0	35.4	34.7
Number of crowns/plant	3	3	3
Habit	Globose	Globose	Flat globose
Density of individual plant	Medium	Medium	Medium
Vigor	Very strong	Medium	Medium

Table 3 shows leaf characteristics of the new cultivar compared with leaf characteristics of 'Driscoll Ojai' and 'Driscoll El Dorado.' Leaf characteristics include terminal leaflet length and width in centimeters, length to width ratio, number of teeth per terminal leaflet, shape of teeth, color of upper side and underside of leaf, leaf shape in cross section, leaf blistering, leaf glossiness, number of leaflets, terminal leaflet margin, terminal leaflet length to width ratio, overall leaf shape and shape of leaf apex and base.

TABLE 3

Leaf Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Terminal leaflet length (cm)	8.0	7.4	7.6
Terminal leaflet width (cm)	7.4	6.7	6.8
Terminal leaflet length/width ratio	1.1	1.1	1.1
No. teeth/terminal leaflet	21	22	22
Shape of teeth	Rounded	Rounded	Rounded
Color of upper surface of leaf	RHS 137A (Dark green)	RHS 147A (Dark yellow-green)	RHS 147A (Dark yellow-green)
Color of lower surface of leaf	RHS 148B (Medium yellow-green)	RHS 148C (Light yellow-green)	RHS 148B (Medium yellow-green)
Leaf shape in cross section	Slightly concave	Slightly convex	Slightly concave
Leaf blistering	Medium	Medium	Medium
Leaf glossiness	Strong	Medium	Medium
No. leaflets	3 only	3 only	3 only
Terminal leaflet margin	Between revolute and flat	Revolute	Both revolute and flat
Terminal leaflet: length/width ratio	As long as broad	As long as broad	As long as broad
Terminal leaflet shape	Orbicular	Orbicular	Oval
Terminal leaflet base shape	Slightly oblique	Slightly oblique	Slightly oblique
Terminal leaflet apex shape	Rounded	Rounded	Rounded

Table 4 shows information about the petiole, the petiolule, the bract, and the stipule of the new cultivar compared to 'Driscoll Ojai' and 'Driscoll El Dorado.' This includes petiole length in centimeters, petiole diameter in centimeters, petiole pubescence, pose of hairs on the petiole, color of the petiole, color of the petiolule, petiolule length in centimeters, petiolule diameter in centimeters, bract frequency per petiole, stipule length in centimeters, stipule width in centimeters, stipule pubescence and stipule anthocyanin coloration.

TABLE 4

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Petiole length (cm)	12.4	9.7	10.1
Petiole diameter (cm)	0.355	0.358	0.332
Petiole pubescence	Medium	Medium	Medium
Petiole pose of hairs	Outwards	Outwards	Outwards
Petiole color	RHS 145A (Medium yellow-green)	RHS 145A (Medium yellow-green)	RHS 146D (Medium yellow-green)
Petiolule color	RHS 145A (Medium yellow-green)	RHS 145A (Medium yellow-green)	RHS 146D (Medium yellow-green)
Petiolule length (cm)	6.93	6.35	6.19
Petiolule diameter (cm)	0.165	0.144	0.147
Bract frequency	1	1	0
Stipule length (cm)	3.2	3.7	3.0
Stipule width (cm)	1.073	1.204	1.074
Stipule pubescence	Medium	Medium	Medium
Stipule anthocyanin coloration	RHS 150D (Light yellow-green)	RHS 142C (Light green)	RHS 149B (Medium yellow-green)

Table 5 shows stolon characteristics of the new cultivar compared to 'Driscoll Ojai' and 'Driscoll El Dorado.' These characteristics include the number of stolons, average number of daughter plants, the anthocyanin coloration of the stolons, the thickness of the stolons, and the pubescence of the stolons.

TABLE 5

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Stolon Number	Medium	Many	ND*
Average number of daughter plants	50+	62	129
Stolon Anthocyanin	RHS 59B (Dark red-purple)	RHS 61C (Medium red-purple)	RHS 59C (Dark red-purple)
Stolon Thickness	Thin	Medium	Thin
Stolon Pubescence	Sparse	Sparse	Medium

*ND = Not determined

Table 6 shows inflorescence characteristics of the new cultivar compared to 'Driscoll Ojai' and 'Driscoll El Dorado.' These characteristics include inflorescence position relative to foliage, time of flowering, relative flower size, flower diameter in centimeters (measured from petal tip to petal tip), petal shape, relative spacing of petals, petal apex, base and margin, petal length in centimeters, petal width in centimeters, petal length to width ratio, number of petals, petal color, calyx diameter in centimeters (measured on back of flower from sepal tip to sepal tip), diameter of calyx relative to corolla, diameter of inner calyx relative to outer, sepal shape, apex and margin, sepal length in centimeters (measured from sepal tip to point of attachment to receptacle), sepal width in centimeters, number of sepals, receptacle color and anther color.

TABLE 6

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Inflorescence position relative to foliage	Between level with and above	Above	Above

TABLE 6-continued

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Time of flowering (50% of plants at first flower)	Medium	Medium	Medium
Flower size	Medium	Medium	Medium
Flower diameter (cm)	2.688	3.289	2.773
Petal shape	Orbicular	Orbicular	Orbicular
Petal spacing	Overlapping	Overlapping	Overlapping
Petal apex shape	Rounded	Rounded	Rounded
Petal margin	Entire	Entire	Entire
Petal base shape	Rounded	Rounded	Rounded
Petal length (cm)	1.531	1.571	1.496
Petal width (cm)	1.464	1.621	1.570
Petal length/width ratio	As long as broad	As long as broad	As long as broad
Typical and observed petal number	6	6	7
Petal color	RHS 155B (White)	RHS 155D (White)	RHS 155B (White)
Calyx diameter (cm)	3.897	4.518	4.271
Calyx diameter relative to corolla	Larger	Larger	Larger
Inner calyx diameter relative to outer	Same size	Same size	Same size
Sepal shape	Oval	Oval	Oval
Sepal apex shape	Convex	Convex	Convex
Sepal margin	Entire	Entire	Entire
Sepal length (cm)	1.538	1.787	1.654
Sepal width (cm)	0.628	0.802	0.674
Typical and observed sepal number	12	13	15
Receptacle color	RHS 154B (Light yellow-green)	RHS 1B (Medium green-yellow)	RHS 1A (Medium green-yellow)
Anther color	RHS 17A (Medium yellow-orange)	RHS 163B (Medium greyed-orange)	RHS 163A (Medium greyed-orange)

Table 7 shows fruit characteristics of the new cultivar compared to 'Driscoll Ojai' and 'Driscoll El Dorado.' These characteristics include fruiting truss length in centimeters, fruiting truss diameter, number of berries per truss, fruiting truss attitude, fruiting truss color, fruit length in centimeters, fruit truss width in centimeters, fruit length to width ratio, fruit hollow length and width in centimeters, fruit hollow length to width ratio, fruit weight in grams, relative fruit size, predominant fruit shape, difference in shape between primary and secondary fruits, band without achenes, unevenness of fruit surface, fruit skin color, evenness of fruit color, fruit glossiness, insertion of achenes, achene coloration (sunward and shaded sides of berry) and the number of achenes per berry.

TABLE 7

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Fruiting truss length (cm)	22.1	20.7	18.7
Fruiting truss length-general	Medium	Medium	Medium
Fruiting truss diameter (cm) at base of truss	0.339	0.281	0.270
Number of berries per fruiting truss	1	1	1

TABLE 7-continued

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Fruiting truss attitude	Prostrate	Prostrate	Prostrate
Fruiting truss color at base of truss	RHS 144A (Medium yellow-green)	RHS 144A (Medium yellow-green)	RHS 144B (Medium yellow-green)
Fruit length (cm)	5.262	4.310	4.904
Fruit width (cm)	5.196	3.888	4.237
Fruit length/width ratio	1.0	1.1	1.2
Fruit hollow length (cm)	2.039	1.617	2.141
Fruit hollow width (cm)	0.968	0.903	1.412
Fruit hollow length/width ratio	2.1	1.8	1.5
Fruit weight (g)	28.7	26.7	26.1
Relative fruit size	Large	Large	Large
Predominant fruit shape	Between conical and almost cylindrical	Conical	Conical and almost cylindrical
Difference in shape between primary & secondary fruits	Slight	Moderate	Slight
Band without achenes	Medium	Narrow	Absent or very narrow
Unevenness of fruit surface	Strong	Medium	Medium
Fruit skin color	RHS 46A (Dark red)	RHS 45A (Medium red)	RHS 46A (Dark red)
Evenness of fruit color	Even	Even	Slightly Uneven
Fruit glossiness	Medium	Medium	Medium
Insertion of achenes	Level with surface	Level with surface	Below surface
Achene coloration-sunward side of berry	RHS 185A (Dark greyed-purple)	RHS 178B (Dark greyed-red)	RHS 185A (Dark greyed-purple)
Achene coloration-shaded side of berry	RHS 153A (Medium yellow-green)	RHS 152D (Medium yellow-green)	RHS 153C (Medium yellow-green)
Achenes per berry	358.7	234.5	215.3

Table 8 shows fruit characteristics of the new cultivar compared to 'Driscoll Ojai' and 'Driscoll El Dorado.' These characteristics include the harvest maturity, insertion of calyx, pose of calyx segments, size of calyx in relation to fruit, adherence of calyx, firmness of flesh, color of the fruit flesh, evenness of the flesh color, distribution of flesh color, hollow center, sweetness of fruit, acidity of fruit, texture of fruit when tasted, type of bearing, grams of fruit per plant.

TABLE 8

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Harvest maturity	Late December to mid-June	Late January to late May	Early January to late May
Insertion of calyx	Level	Level	Level
Pose of calyx segments	Reflexed	Reflexed	Reflexed
Size of calyx in relation to fruit	From same size to larger	Between same size and larger	Between same size and larger
Adherence of calyx	Strong	Strong	Strong
Firmness of flesh	Between soft and medium	Firm	Firm
Color of the flesh	RHS N155D (White) and RHS 45A (Dark Red)	RHS 155D (White) and RHS N30A (Dark orange-red)	RHS 155B (White) and RHS 42B (Medium red)

TABLE 8-continued

Characteristic	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Evenness of flesh color	Even	Even	Even
Distribution of flesh color	Marginal and central	Only marginal	Marginal and central
Hollow center	Between small and medium	Between small and medium	Between small and medium
Sweetness	Strong	Medium	Medium
Acidity	Weak	Medium	Medium
Texture when tasted	Fine	Medium	Medium
Type of bearing	Partially everbearing	Partially everbearing	Partially everbearing
Grams of fruit/plant	473.7	435.4	707.8

Table 9 shows pest, stress and disease characteristics of the new cultivar compared to 'Driscoll Ojai' and 'Driscoll El Dorado'.

TABLE 9

Pest, Stress or Disease	'DrisStrawThirteen'	'Driscoll Ojai'	'Driscoll El Dorado'
Lygus hesperus (Lygus bug)	Moderately resistant	Susceptible	Susceptible
Botrytis fruit rot	Moderately susceptible	Moderately susceptible	Susceptible
Powdery mildew	Resistant	Moderately susceptible	Moderately resistant
Verticillium wilt	Moderately susceptible	Susceptible	Moderately susceptible
Strawberry mottle virus	Moderately resistant	Moderately resistant	Moderately resistant
Xanthomonas fragariae	Moderately susceptible	Moderately susceptible	Moderately susceptible
Drought	Moderately resistant	ND*	ND
High temperatures	Moderately resistant	ND	ND
Wind	Moderately resistant	ND	ND
High pH	Moderately resistant	ND	ND
High soil salt levels	Moderately resistant	ND	ND
Water logging	Moderately resistant	ND	ND

*ND = Not determined

COMPARISON WITH PARENTAL AND COMMERCIAL CULTIVARS

When 'DrisStrawThirteen' is compared to the proprietary female parent '2K297' (unpatented), 'DrisStrawThirteen' has larger fruit with a softer texture than does '2K297.' In addition, 'DrisStrawThirteen' produces fruit three weeks earlier, has a more compact plant habit with darker foliage and is more rain tolerant than '2K297'.

When 'DrisStrawThirteen' is compared to the male parent 'Driscoll Ojai' (U.S. Plant Pat. No. 18,575), 'DrisStrawThirteen' produces fruit four weeks earlier than 'Driscoll Ojai'. In addition, 'DrisStrawThirteen' is more rain tolerant, has a more compact plant habit with darker foliage than 'Driscoll Ojai' and hides its fruit underneath the canopy whereas 'Driscoll Ojai' has a more upright plant habit and presents its fruit above the canopy.

We claim:

1. A new and distinct cultivar of strawberry plant as described and shown herein.

* * * * *

FIG. 1

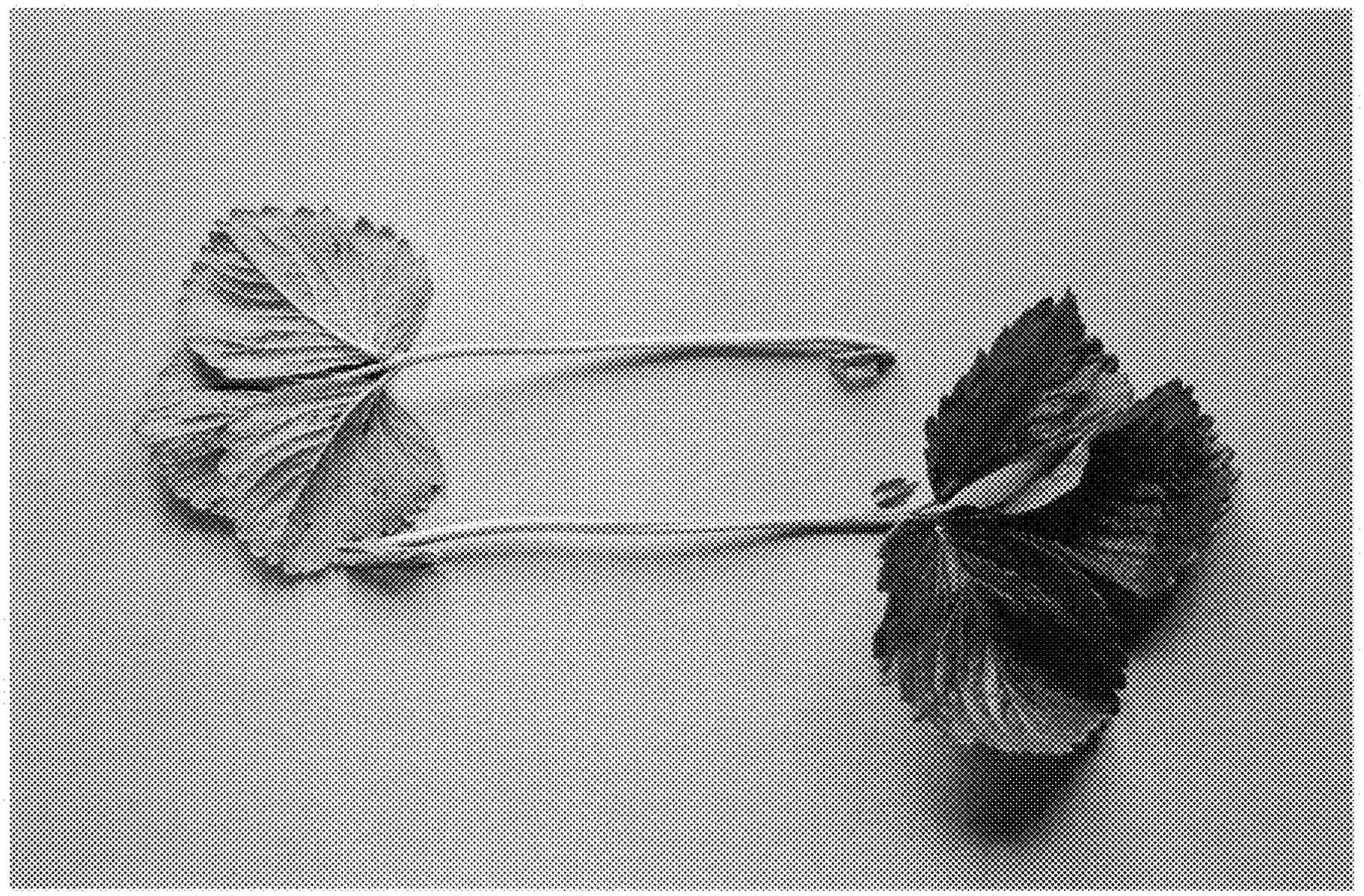

FIG. 2

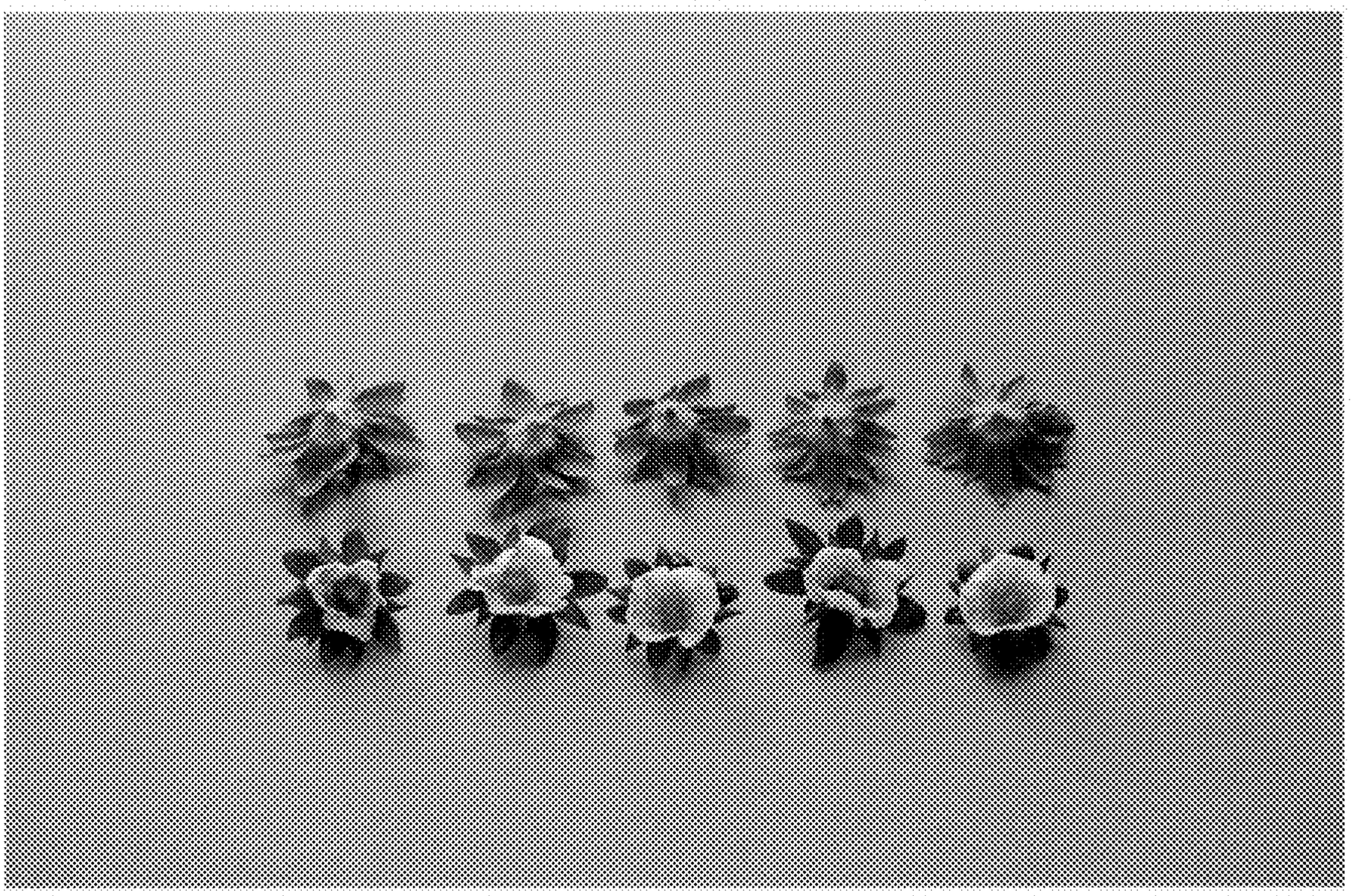

FIG. 3

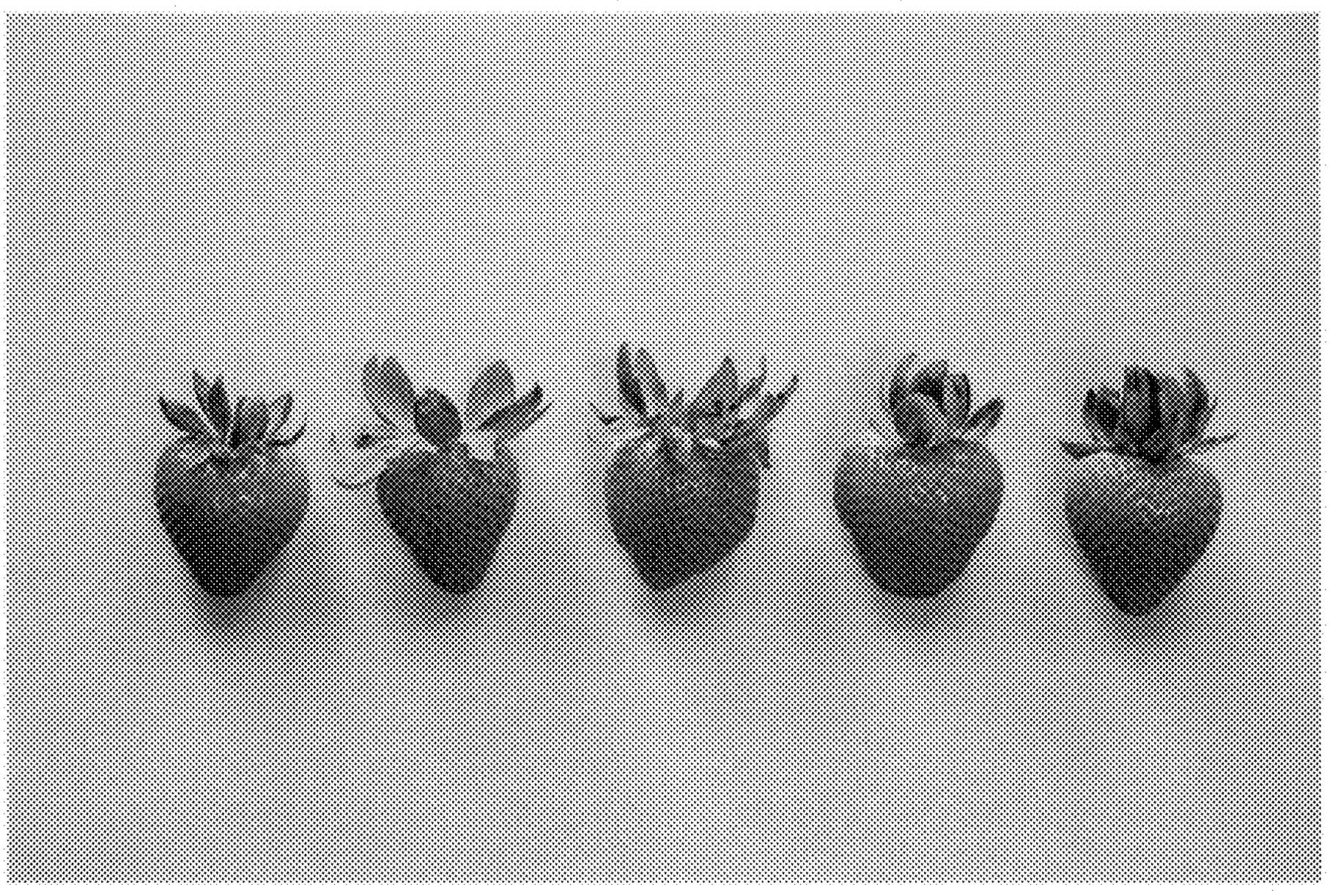

FIG. 4

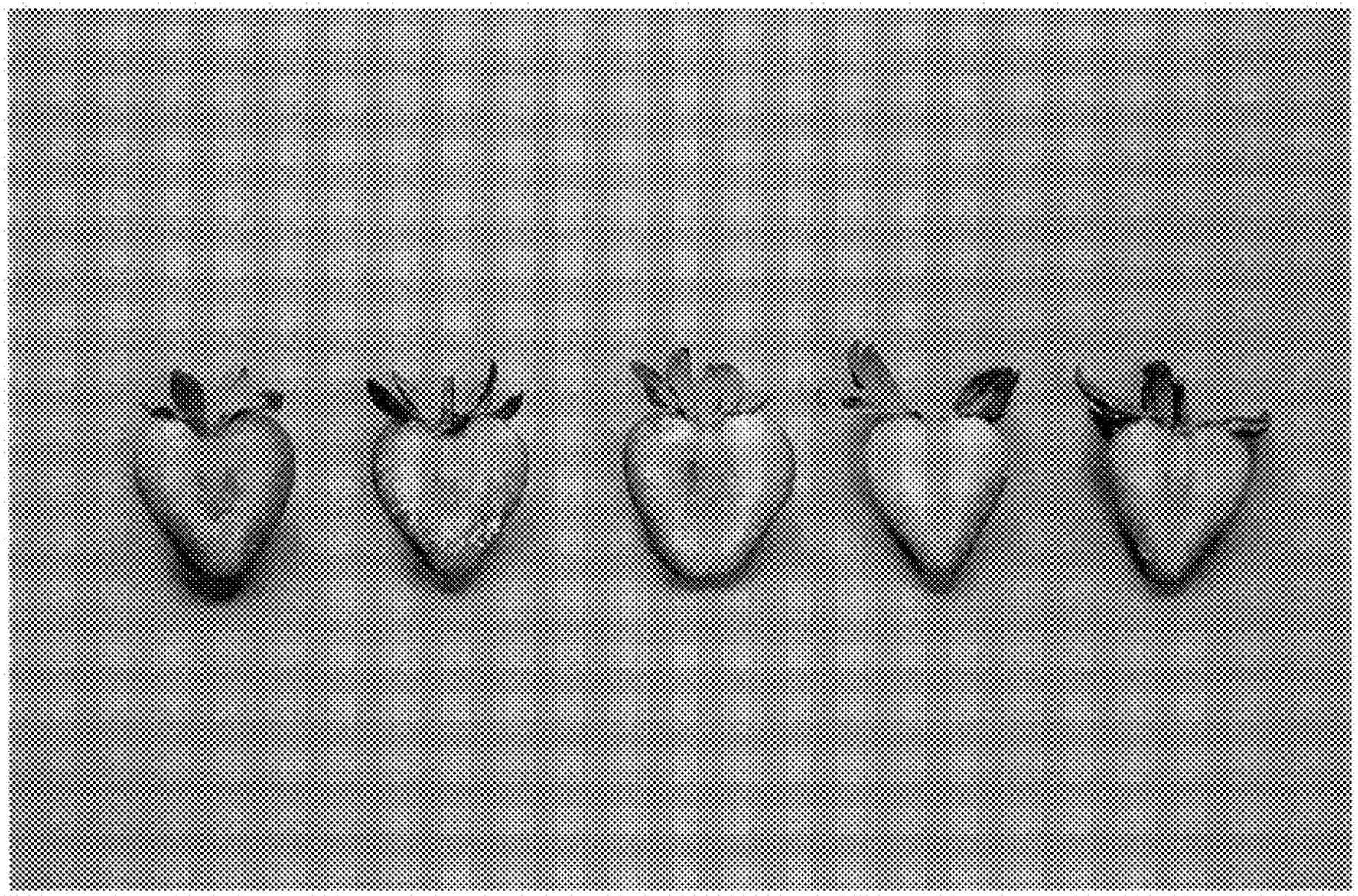

FIG. 5