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Gilford et al.

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

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

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(52) **U.S. Cl.** **Plt./208**
(58) **Field of Classification Search** Plt./208
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 'DrisStrawFour'. A new cultivar primarily characterized by its large fruit size, heavy fruit production, moderate resistance to *Lygus hesperus, Botrytis* fruit rot, powdery mildew, and Strawberry Mottle Virus and resistance to *Verticillium* wilt is disclosed.

3 Drawing Sheets

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

BACKGROUND OF THE NEW PLANT

The present invention relates to a new and distinct strawberry cultivar designated 'DrisStrawFour' and botanically known as *Fragaria×ananassa.* This new strawberry cultivar was discovered in December, 2000 and originated from a cross between the female parent '6F364', a proprietary strawberry plant (unpatented) and the male parent 'Mirador' (U.S. Plant Pat. No. 11,279). The original seedling of the new cultivar was asexually propagated at a nursery in Shasta County, California. 'DrisStrawFour' was subsequently asexually propagated and underwent further testing at a nursery in Hillsborough County, Florida for six years. The present invention has been found to retain its distinctive characteristics through successive asexual propagations.

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.

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 upperside 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 'DrisStrawFour' is based on observations taken from the 2000 to 2005 growing seasons in Hillsborough County, Florida. 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. 'DrisStrawFour' has not been observed under all possible environmental conditions. Color terminology follows The Royal Horticultural Society Colour Chart, London (R.H.S.) (2001).

DETAILED BOTANICAL DESCRIPTION

Table 1 shows plant characteristics of the new variety compared with plant characteristics of the male parent 'Driscoll Mirador' (U.S. Plant Pat. No. 11,279). Plant characteristics include plant height, terminal leaf length, petiole length, fruit length, fruit width and *Botrytis* fruit rot.

TABLE 1

Characteristic	'DrisStrawFour'	'Driscoll Mirador'
Plant height (cm)	20.9	13.5
Terminal leaf length (cm)	8.3	7.7
Petiole length (cm)	11.2	9.2
Fruit length (cm)	4.5	3.4
Fruit width (cm)	4.2	2.4
Botrytis fruit rot	Moderately resistant	Moderately susceptible

Table 2 shows plant characteristics of the new variety compared with plant characteristics of the commercial varieties, 'Driscoll Malibu' (U.S. Plant Pat. No. 16,070) and 'Driscoll Osceola' (U.S. Plant Pat. No. 15,752). Plant characteristics include plant height, diameter, number of crowns per plant, habit, density of individual plant and vigor.

TABLE 2

Characteristic	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Plant height (cm)	20.9	17.9	18.5
Plant diameter (cm)	40.7	39.8	38.2

TABLE 2-continued

Characteristic	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Number of crowns/plant	4	4	2
Habit	Between flat globose and flat	Globose	Flat globose
Density of individual plant	Between medium and dense	Medium	Between open and medium
Vigor	Strong	Between weak and medium	Medium

Table 3 shows leaf characteristics of the new cultivar compared with leaf characteristics of 'Driscoll Malibu' and 'Driscoll Osceola'. 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 upperside and underside of leaf, leaf shape in cross section, leaf blistering, leaf glossiness, number of leaflets, leaflet margin, and shape of leaf base.

TABLE 3

Leaf Characteristic	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Terminal leaflet length (cm)	8.3	9.3	10.3
Terminal leaflet width (cm)	8.2	9.3	10.4
Terminal leaflet length/width ratio	1.02	1.00	0.98
No. teeth/terminal leaflet	25	23	11
Shape of teeth	Rounded	Between obtuse and rounded	Obtuse
Color of upperside of leaf	RHS 137A Dark green	RHS 141A Dark bright green	RHS 135B Dark bright blue-green
Color of underside of leaf	RHS 148C Medium yellow-green	RHS 139C Medium green	RHS 138B Medium green
Leaf shape in cross section	Concave	Between slightly concave and flat	Between concave and slightly concave
Leaf blistering	Strong	Medium	Medium
Leaf glossiness	Medium	Weak	Medium
No. leaflets	Three only	Three only	Three only
Terminal leaflet margin	Flat	Flat	Flat
Terminal leaflet: length/width ratio	As long as broad	As long as broad	As long as broad
Terminal leaflet base shape	Obtuse	Rounded	Rounded

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

TABLE 4

Characteristic	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Petiole length (cm)	11.2	10.5	9.1
Petiole diameter (cm)	0.417	0.402	0.406
Petiole pubescence	Between sparse and medium	Dense	Dense
Petiole pose of hairs	Upwards	Downwards	Between outwards and downwards
Petiole color	RHS 145A Light yellow-green	RHS 144B Bright yellow-green	RHS 141C Bright medium green
Petiolule color	RHS 145C Light yellow-green		
Petiolule length (cm)	1.096	1.424	1.205
Petiolule diameter (cm)	0.232	0.260	0.251
Bract frequency	1	1	0
Stipule length (cm)	3.8	4.0	4.5
Stipule width (cm)	1.047	1.162	1.091
Stipule pubescence	Medium	Medium	Medium

Table 5 shows stolon characteristics of the new cultivar compared to 'Driscoll Malibu' and 'Driscoll Osceola'. These characteristics include the number of stolons, the anthocyanin coloration of the stolons, the thickness of the stolons, and the pubescence of the stolons.

TABLE 5

Characteristic	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Stolon Number	Few	Few	Few
Stolon Anthocyanin	Very strong	Between medium and strong	Between medium and strong
Stolon Thickness	Thick	Between medium and thick	Between medium and thick
Stolon Pubescence	Sparse	Medium	Dense

Table 6 shows inflorescence characteristics of the new cultivar compared to 'Driscoll Malibu' and 'Driscoll Osceola'. These characteristics include inflorescence position relative to foliage, relative flower size, flower diameter in centimeters (measured from petal tip to petal tip), relative spacing of petals, petal length in centimeters, petal width in centimeters, petal length to width ratio, 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 length in centimeters (measured from sepal tip to point of attachment to receptacle), sepal width in centimeters, receptacle color and anther color.

TABLE 6

Characteristic	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Inflorescence position relative to foliage	Between level with and above	Between level with and above	Between level with and above

TABLE 6-continued

Characteristic	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Flower size	Medium	Medium	Medium
Flower diameter (cm)	3.014	2.525	3.045
Petal spacing	Overlapping	Overlapping	Overlapping
Petal length (cm)	1.278	1.290	1.623
Petal width (cm)	1.463	1.429	1.698
Petal length/width ratio	0.87	0.90	0.96
Petal length/width ratio	Broader than long	Between much broader than long and broader than long	Between as long as broad and longer than broad
Petal color	RHS 155C White	RHS 155C White	RHS 155C White
Calyx diameter (cm)	3.776	4.021	5.659
Calyx diameter relative to corolla	Larger	Larger	Larger
Inner calyx diameter relative to outer	Same size	Larger	Between smaller and same size
Sepal length (cm)	1.252	1.396	2.147
Sepal width (cm)	0.718	0.796	1.182
Receptacle color	RHS 9A Bright golden yellow		
Anther color	RHS 12A Golden yellow		

Table 7 shows fruit characteristics of the new cultivar compared to 'Driscoll Malibu' and 'Driscoll Osceola'.

TABLE 7

Characteristic	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Fruiting truss length (cm)	19.1	17.4	19.9
Fruiting truss attitude	Prostrate	Prostrate	Prostrate
Fruiting truss length	Between short and medium	Short	Between short and medium
Fruit length (cm)	4.517	4.921	4.223
Fruit width (cm)	4.183	3.960	3.968
Fruit length/width ratio	1.08	1.24	1.06
Fruit length/width ratio	As long as broad	Between as long as broad and longer than broad	As long as broad
Fruit weight (g)	28	28	30
Relative fruit size	Medium	Between medium and large	Between small and medium
Predominant fruit shape	Cordate	Conical	Cordate
Difference in shape between primary & secondary fruits	Slight	Slight	Slight
Band without achenes	Medium	Between absent and very narrow	Between absent and very narrow to narrow
Unevenness of fruit surface	Between absent and very weak	Medium	Weak
Fruit skin color	RHS 46A Dark red	RHS 46B Dark bright red	RHS 46A Dark red
Evenness of fruit color	Even	Slightly uneven	Slightly uneven
Fruit glossiness	Between medium and strong	Strong	Strong

TABLE 7-continued

Characteristic	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Insertion of achenes	Level with surface	Between below surface and level with surface	Below surface
Achene coloration-sunward side of berry	RHS 181A Dark greyed-red		
Achene coloration-shaded side of berry	RHS 13A Golden yellow		
Achenes per berry	356		
Achene weight	0.0014		
Insertion of calyx	Level	Level	Level
Pose of calyx segments	Between spreading and reflexed	Reflexed	Between spreading and reflexed
Size of calyx in relation to fruit	Between same size and larger	Between same size and larger	Between same size and larger
Adherence of calyx	Strong	Strong	Strong
Firmness of flesh	Medium	Between soft and medium	Between soft and medium
Color of the flesh	RHS 44B Bright red and RHS 155C White	RHS 48C Medium pink	RHS 48D Light pink
Evenness of flesh color	Slightly uneven	Slightly uneven	Slightly uneven
Distribution of flesh color	Marginal and central	Marginal and central	Marginal and central
Hollow center	Large	Small	Medium
Sweetness	Strong	Medium	Medium
Acidity	Medium	Medium	Medium
Texture when tasted	Medium	Medium	Fine
Time of flowering	Very early	Very early	Very early
Harvest maturity (50% of plants with ripe fruit)	Early-Mid November to early April	Late	Late
Type of bearing	Fully everbearing	Partially everbearing	Partially everbearing
Grams of fruit/plant	443	287	422

Table 8 shows the resistance to different forms of stress of the new cultivar compared to 'Driscoll Malibu' and 'Driscoll Osceola'. These forms of stress include high temperatures and pesticides.

TABLE 8

Reaction to Stress	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
High temperatures	Moderately resistant		

Table 9 shows pest and disease characteristics of the new cultivar compared to 'Driscoll Malibu' and 'Driscoll Osceola'.

TABLE 9

Pest or Disease	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Tetranychus urticae (2-spotted spider mite)	Moderately susceptible	Susceptible	Susceptible
Tarsonemus pallidus	Moderately resistant		

TABLE 9-continued

Pest or Disease	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Aphelencoides fragariae	Moderately resistant		
Pratylenchus penetrans	Moderately susceptible		
Aphis spp. (Aphids)	Moderately susceptible		
Lygus hesperus (Lygus bug)	Moderately resistant	Susceptible	Susceptible
Botrytis fruit rot	Moderately resistant	Susceptible	Susceptible
Powdery mildew	Moderately resistant	Moderately susceptible	Moderately susceptible
Verticillium wilt	Resistant	Highly susceptible	Susceptible
Leather rot	Resistant		
Red stele *Phytophthora fragariae*	Moderately resistant		

TABLE 9-continued

Pest or Disease	'DrisStrawFour'	'Driscoll Malibu'	'Driscoll Osceola'
Ramularia tulasnei-Leaf spots	Moderately resistant		
Leaf scorch	Resistant		
Leaf blight	Resistant		
Black root rot	Resistant		
Viral diseases-Strawberry Mottle Virus	Moderately resistant	Susceptible	Susceptible
Xanthomonas fragariae	Moderately susceptible	Moderately susceptible	Moderately susceptible

We claim:

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

* * * * *

FIG. 1

FIG. 2

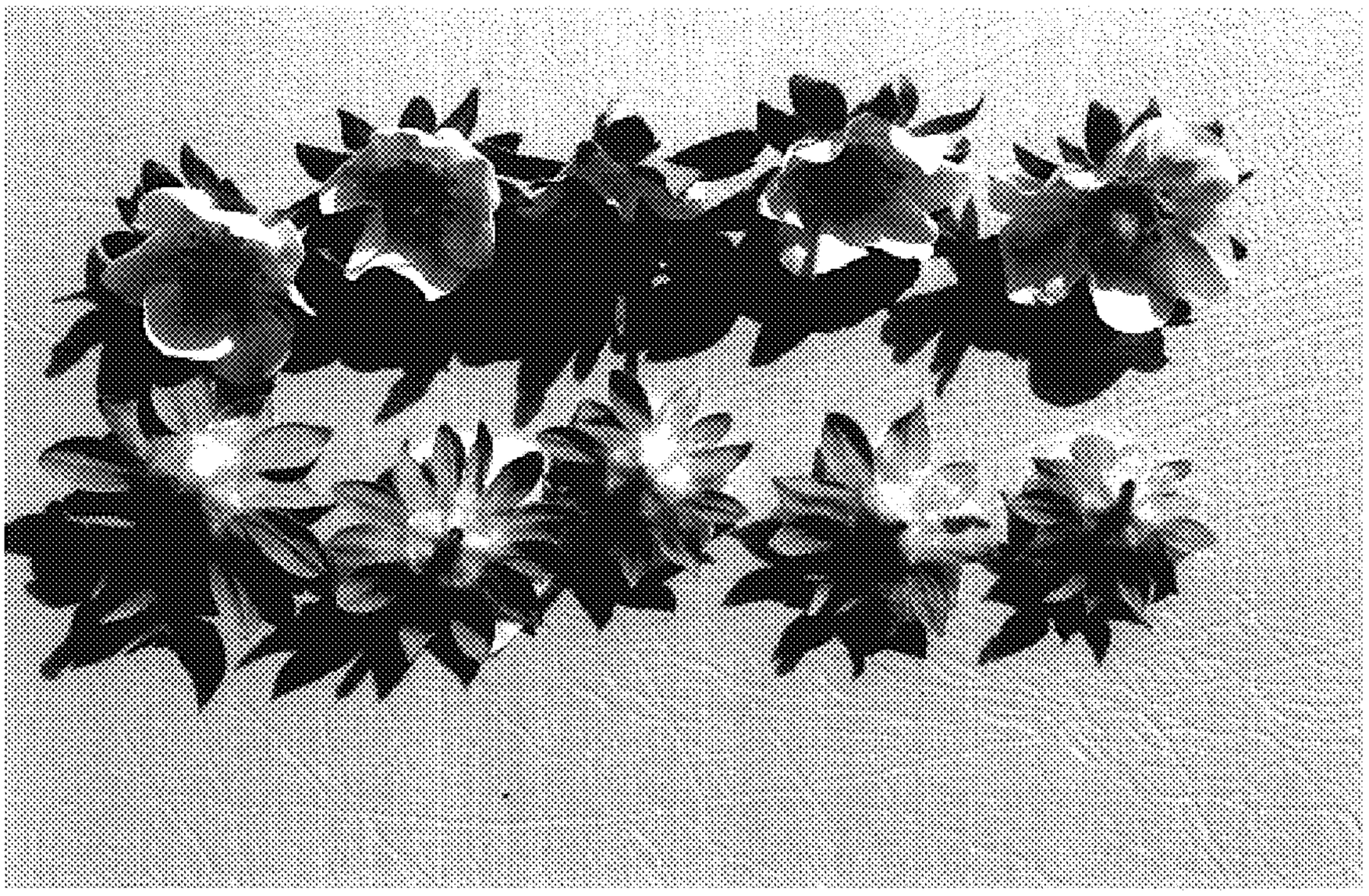

FIG. 3

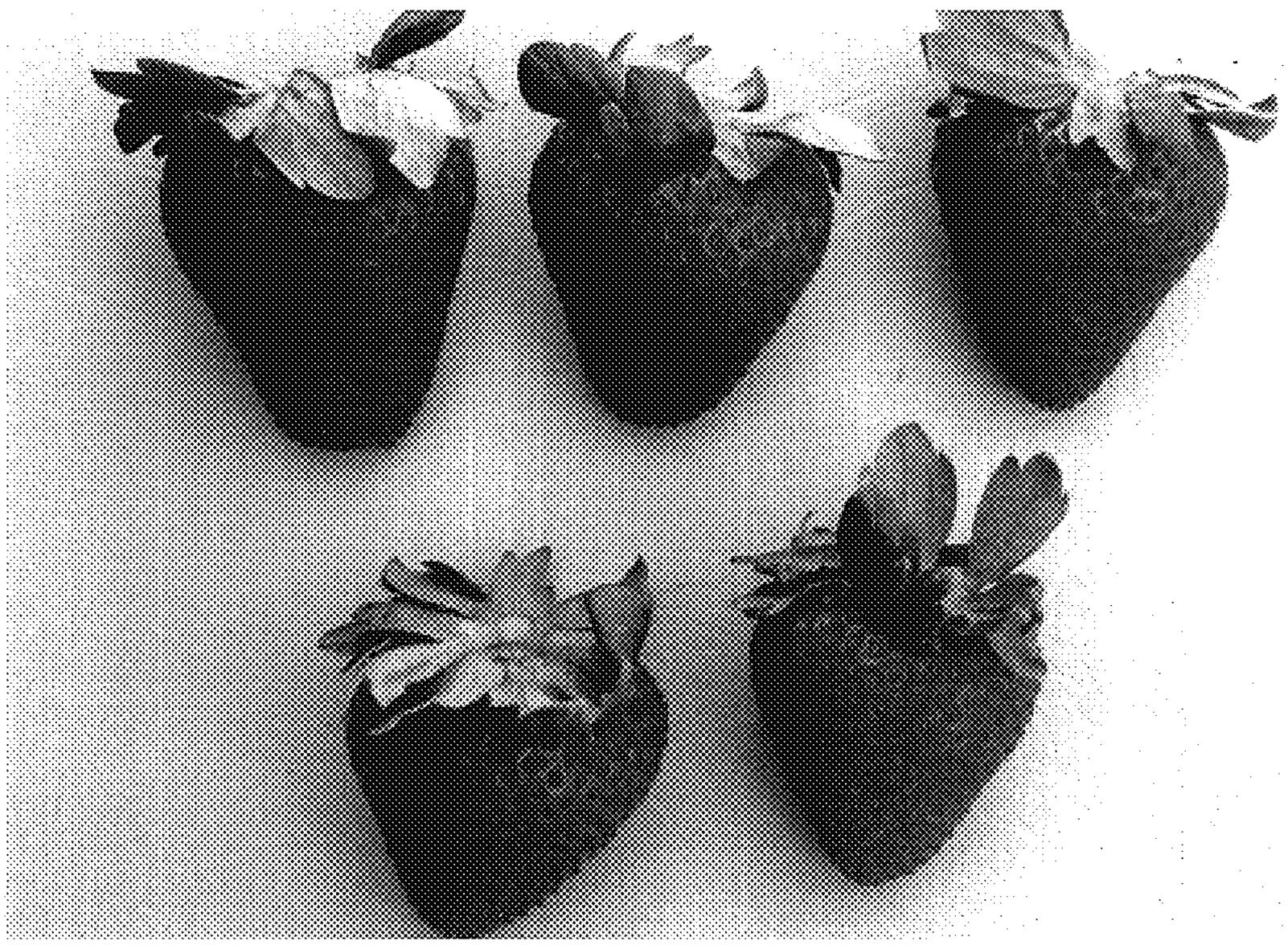

FIG. 4

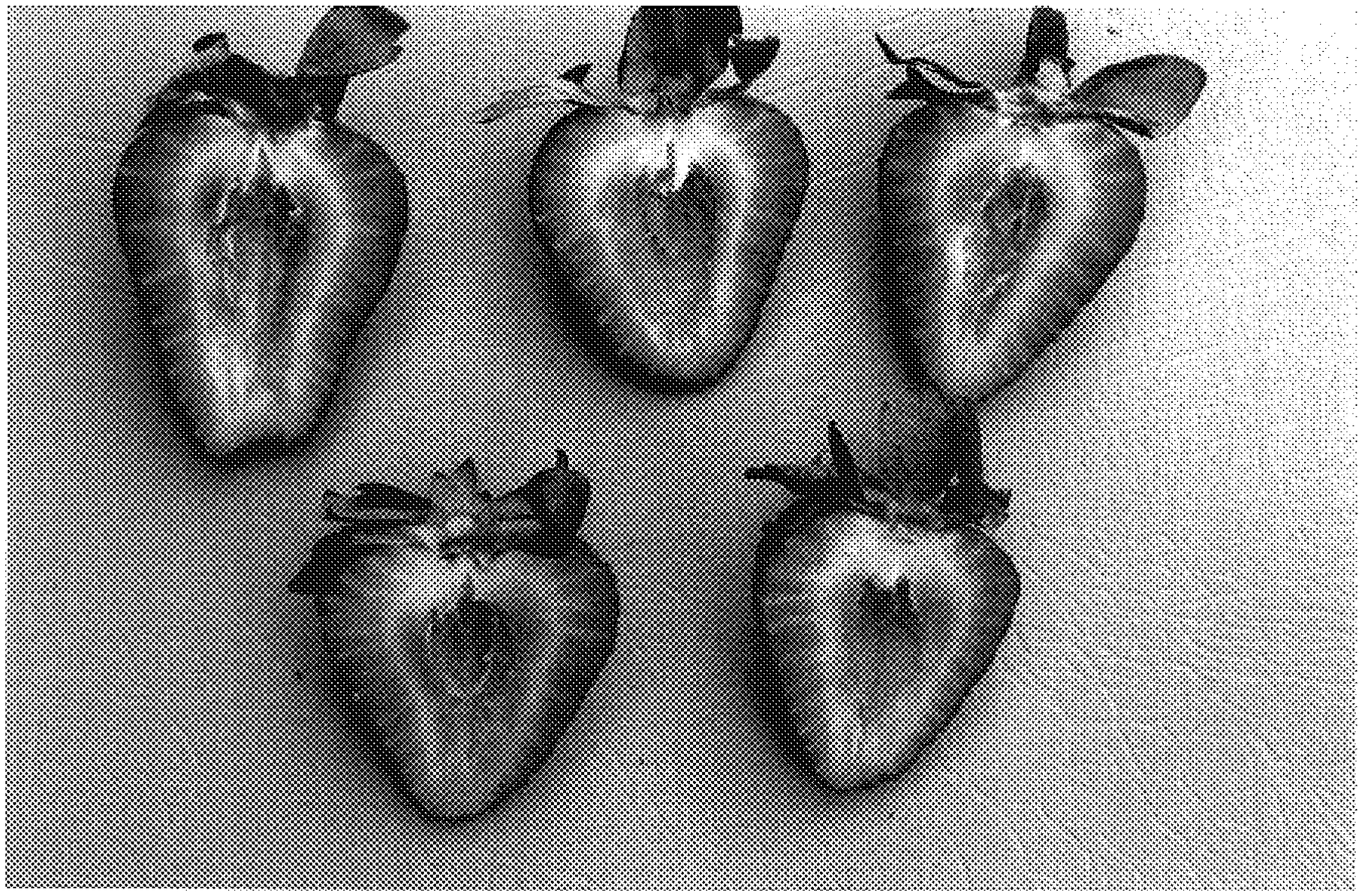

FIG. 5