US00PP31233P2

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

(10) **Patent No.: US PP31,233 P2**
(45) **Date of Patent: Dec. 17, 2019**

(54) **STRAWBERRY PLANT VARIETY NAMED 'DRISSTRAWFIFTYNINE'**

(50) Latin Name: ***Fragaria* x *ananassa***
Varietal Denomination: **DrisStrawFiftyNine**

(71) Applicant: **Driscoll's, Inc.**, Watsonville, CA (US)

(72) Inventors: **Katalin Monika Pakozdi**, Maidstone (GB); **Carlos D. Fear**, Aptos, CA (US); **Alessandra Lillo**, Watsonville, CA (US)

(73) Assignee: **Driscoll's, Inc.**, Watsonville, CA (US)

(*) 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.: **15/998,015**

(22) Filed: **Jun. 11, 2018**

(51) **Int. Cl.**
A01H 5/08 (2018.01)
A01H 6/74 (2018.01)

(52) **U.S. Cl.**
USPC **Plt./209**

(58) **Field of Classification Search**
USPC Plt./209, 208
CPC A01H 5/08; A01H 5/0893; A01H 5/0831; A01H 6/74; A01H 6/7409
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP1,756	P	8/1958	Lang
PP3,981	P	11/1976	Bringhurst et al.
PP4,487	P	11/1979	Bringhurst et al.
PP4,538	P	5/1980	Bringhurst et al.
PP5,262	P	7/1984	Voth et al.
PP5,265	P	7/1984	Voth et al.
PP5,266	P	7/1984	Bringhurst et al.
PP5,300	P	10/1984	Johnson, Jr.
PP5,480	P	5/1985	Nakagawa
PP5,840	P	12/1986	Johnson, Jr. et al.
PP6,191	P	5/1988	Johnson, Jr. et al.
PP6,231	P	7/1988	Johnson, Jr. et al.
PP6,578	P	1/1989	Voth et al.
PP6,579	P	1/1989	Bringhurst et al.
PP7,024	P	9/1989	Johnson, Jr. et al.
PP7,172	P	2/1990	Voth et al.
PP7,522	P	5/1991	Johnson, Jr. et al.
PP7,614	P	8/1991	Bringhurst et al.
PP7,615	P	8/1991	Bringhurst et al.
PP8,086	P	1/1993	Nelson et al.
PP8,205	P	4/1993	Nelson et al.
PP8,649	P	3/1994	Sjulin et al.
PP8,661	P	3/1994	Bringhurst et al.
PP8,708	P	5/1994	Voth et al.
PP8,745	P	5/1994	Sjulin et al.
PP9,130	P	5/1995	Sjulin et al.
PP9,909	P	6/1997	Ackerman et al.
PP10,221	P	2/1998	Sjulin et al.
PP10,534	P	8/1998	Sjulin et al.
PP10,642	P	10/1998	Amorao et al.
PP11,035	P	8/1999	Mowrey et al.
PP11,277	P	3/2000	Gilford et al.
PP11,279	P	3/2000	Gilford et al.
PP11,522	P	9/2000	Amorao et al.
PP11,548	P	10/2000	Amorao et al.
PP11,554	P	10/2000	Sjulin et al.
PP11,639	P	11/2000	Mowrey et al.
PP12,186	P2	11/2001	Gilford et al.
PP12,436	P2	3/2002	Amorao et al.
PP12,577	P2	4/2002	Amorao et al.
PP12,817	P2	7/2002	Gilford et al.
PP12,889	P2	8/2002	Lamb et al.
PP12,899	P2	9/2002	Mowrey et al.
PP13,386	P2	12/2002	Mowrey et al.
PP13,469	P3	1/2003	Larson et al.
PP14,005	P3	7/2003	Amorao et al.
PP14,062	P3	8/2003	Amorao et al.
PP14,109	P3	8/2003	Gilford et al.
PP14,771	P3	5/2004	Amorao et al.
PP15,145	P2	9/2004	Mowrey et al.
PP15,308	P2	11/2004	Sjulin et al.
PP15,375	P2	11/2004	Mowrey et al.
PP15,435	P2	12/2004	Sjulin et al.
PP15,596	P2	3/2005	Amorao et al.
PP15,731	P2	4/2005	Amorao et al.
PP15,752	P2	5/2005	Gilford et al.
PP16,070	P2	10/2005	Gilford et al.
PP16,238	P2	2/2006	Amorao et al.
PP16,241	P2	2/2006	Mowrey et al.
PP16,298	P2	2/2006	Gilford et al.
PP16,299	P2	2/2006	Gilford et al.
PP16,475	P2	4/2006	Gilford et al.
PP16,558	P3	5/2006	López
PP18,000	P2	9/2007	Meulenbroek
PP18,040	P3	9/2007	Mowrey et al.
PP18,041	P3	9/2007	Gilford
PP18,458	P2	1/2008	Ferguson et al.
PP18,575	P3	3/2008	Amorao et al.
PP18,878	P2	6/2008	Mowrey et al.
PP19,240	P2	9/2008	Gilford et al.
PP19,673	P3	2/2009	Ferguson et al.
PP19,767	P2	2/2009	Shaw et al.

(Continued)

OTHER PUBLICATIONS

The Fruit Grower 2017 Fruit Focus 2017 Berry Gardens expands market share, retrieved on May 13, 2017, retrieved from the Internet at http://www.hortnews.com/publications/fruitgrower/august/2017/files/assets/common/downloads/Fru%20AUG%2017.pdf, cover page and pp. 10-11. (Year: 2017).*

Upov Pluto Plt Variety Database 20190513, retrieved on May 13, 2019, retrieved from the Internet at https://www3.wipo.int/pluto/user/en/index.jsp, one page. (Year: 2019).*

"An Early Season with Many Highs", Berry Gardens 2017, Online at https://www.berrygardens.co.uk/an-early-season-with-many-highs/, 6 pp. (Year: 2017).*

(Continued)

Primary Examiner — June Hwu

(74) *Attorney, Agent, or Firm* — Morrison & Foerster LLP

(57) **ABSTRACT**

A new and distinct variety of strawberry plant named 'DrisStrawFiftyNine', particularly characterized by its yield potential, fruit with less seed, fruit size, fruit appearance, and fruit shelf-life, is disclosed.

2 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP20,248	P3	9/2009	Rogers et al.	
PP20,363	P2	9/2009	Chandler	
PP20,701	P2	2/2010	Gilford et al.	
PP20,731	P2	2/2010	Mowrey et al.	
PP20,733	P2	2/2010	Mowrey et al.	
PP20,735	P2	2/2010	Ferguson	
PP20,775	P2	2/2010	Mowrey et al.	
PP20,922	P2	4/2010	Gilford et al.	
PP21,538	P2	11/2010	Gilford et al.	
PP21,559	P2	12/2010	Ferguson et al.	
PP21,762	P2	3/2011	Stewart et al.	
PP22,040	P3	7/2011	Stewart et al.	
PP22,218	P2	11/2011	Ferguson	
PP22,247	P2	11/2011	Ferguson	
PP23,107	P2	10/2012	Ferguson et al.	
PP23,148	P2	10/2012	Gilford et al.	
PP23,377	P2	2/2013	Ferguson et al.	
PP23,378	P2	2/2013	Pullen et al.	
PP23,382	P2	2/2013	Ferguson et al.	
PP23,383	P2	2/2013	Ferguson et al.	
PP23,400	P2	2/2013	Ferguson et al.	
PP23,401	P2	2/2013	Pullen et al.	
PP23,459	P2	3/2013	Stewart et al.	
PP23,506	P3	4/2013	Ferguson et al.	
PP23,517	P3	4/2013	Ferguson et al.	
PP24,096	P3	12/2013	Fear et al.	
PP24,317	P3	3/2014	Ferguson et al.	
PP24,333	P3	3/2014	Vitten et al.	
PP24,395	P3	4/2014	Vitten et al.	
PP24,533	P3	6/2014	Ferguson et al.	
PP24,745	P2	8/2014	Vitten et al.	
PP25,408	P3	4/2015	Vitten et al.	
PP25,437	P3	4/2015	Vitten et al.	
PP25,698	P3	7/2015	Ferguson et al.	
PP25,699	P3	7/2015	Stewart et al.	
PP25,747	P3	7/2015	Kibbe et al.	
PP25,866	P3	9/2015	Ferguson et al.	
PP26,800	P3	6/2016	Stewart et al.	
PP26,801	P3	6/2016	Stewart et al.	
PP26,802	P3	6/2016	Rodriguez Alcazar et al.	
PP27,442	P2	12/2016	Kibbe et al.	
PP27,645	P3	2/2017	Vitten et al.	
PP27,682	P3	2/2017	Kibbe et al.	
PP27,711	P3	2/2017	Vitten et al.	
PP27,813	P3	3/2017	Ferguson et al.	
PP29,289	P3	5/2018	Vitten et al.	
PP29,728	P2 *	10/2018	Stewart	Plt./208
PP29,729	P2 *	10/2018	Kibbe	Plt./208
PP29,730	P2 *	10/2018	Kibbe	Plt./208
PP29,731	P2 *	10/2018	Ferguson	Plt./209
PP29,747	P2 *	10/2018	Vitten	Plt./208
PP29,748	P2 *	10/2018	Vitten	Plt./208
PP29,749	P2 *	10/2018	Stewart	Plt./209
2003/0079263	P1	4/2003	Gilford et al.	
2013/0276182	P1	10/2013	Fear et al.	

OTHER PUBLICATIONS

"An Early Season With Many Highs", Berry Gardens, Available Online at <https://www.berrygardens.co.uk/an-early-season-with-many-highs/>, Aug. 21, 2017, 6 pages.

Katie, "My Green Pod", Available online at <https://www.mygreenpod.com/articles/its-strawberry-time/>, May 30, 2017, 3 pages.

Fear, et at, Unpublished U.S. Appl. No. 15/998,014, filed Jun. 11, 2018, titled "Strawberry Plant Variety Named 'DrisStrawFiftyEight'".

Ferguson et al., Unpublished U.S. Appl. No. 15/731,546, filed Jun. 26, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftySix'".

Kibbe et al., Unpublished U.S. Appl. No. 15/731,542, filed Jun. 26, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyTwo'".

Kibbe et al., Unpublished U.S. Appl. No. 15/731,545, filed Jun. 26, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyOne'".

Mendoza et al., Unpublished U.S. Appl. No. 15/998,020, filed Jun. 12, 2018, titled "Strawberry Plant Variety Named 'DrisStrawSixtyOne'".

Pakozdi et al., Unpublished U.S. Appl. No. 15/998,028, filed Jun. 14, 2018, titled "Strawberry Plant Variety Named 'DrisStrawSixtyFive'".

Stewart et al., Unpublished U.S. Appl. No. 15/731,415, filed Jun. 6, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyThree'".

Stewart et al., Unpublished U.S. Appl. No. 15/731,421, filed Jun. 6, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftySeven'".

Stewart et al., Unpublished U.S. Appl. No. 15/998,031, filed Jun. 14, 2018, titled "Strawberry Plant Variety Named 'DrisStrawSixtyFour'".

Vitten et al., Unpublished U.S. Appl. No. 15/731,559, filed Jun. 27, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyFour'".

Vitten et al., Unpublished U.S. Appl. No. 15/731,560, filed Jun. 27, 2017, titled "Strawberry Plant Variety Named 'DrisStrawFiftyFive'".

* cited by examiner

STRAWBERRY PLANT VARIETY NAMED 'DRISSTRAWFIFTYNINE'

Botanical classification: *Fragaria* x *ananassa.*

Varietal denomination: The varietal denomination of the claimed variety of strawberry plant is 'DrisStrawFiftyNine'.

BACKGROUND OF THE INVENTION

Cultivated strawberry is a hybrid species of the genus *Fragaria* that is grown worldwide for its fruit. Modern strawberry was first bred in Brittany, France, in the 18th century by crossing *Fragaria virginiana* with *Fragaria chiloensis*. Strawberry fruit is an aggregate accessory fruit, with the fleshy part of the fruit being derived from the receptacle that holds the ovaries.

Strawberry varieties vary widely in color, size, shape, flavor, season of ripening, degree of fertility, and susceptibility to disease. Certain varieties vary in foliage, and some vary in the relative development of their reproductive organs. Typically, strawberry flowers appear hermaphroditic in structure, but function as either male or female. Generally, commercial production of strawberry plants involves propagation from runners and distribution as either plugs or bare root plants. Cultivation is either perennial or annual plasticulture. During the off season, strawberries can also be produced in greenhouses.

Strawberry fruit is widely appreciated for its characteristic bright red color, aroma, juicy texture, and sweetness. Strawberry fruit is a popular fruit that is generally consumed either fresh or in prepared foods, such as preserves and baked goods.

Strawberry is an important and valuable fruit crop. Accordingly, there is a need for new varieties of strawberry plants. In particular, there is a need for improved varieties of strawberry plant that are stable, high yielding, and agronomically sound.

SUMMARY OF THE INVENTION

In order to meet these needs, the present invention is directed to an improved variety of strawberry plant. In particular, the invention relates to a new and distinct variety of strawberry plant (*Fragaria* x *ananassa*), which has been denominated as 'DrisStrawFiftyNine'.

Strawberry plant variety 'DrisStrawFiftyNine' was discovered in East Malling, Kent County, the United Kingdom in August of 2012, and originated from a cross between the proprietary female parent 'UUKE 116-003' (unpatented) and the proprietary male parent 'UUKE 167-027' (unpatented). A single plant was selected and asexually propagated via stolons in the Netherlands in August of 2012.

'DrisStrawFiftyNine' was subsequently asexually propagated via stolons, and underwent further testing at a farm in East Malling, Kent County, the United Kingdom for five years (2012 to 2016). The present variety has been found to be stable and reproduce true to type through successive asexual propagations via stolons.

'DrisStrawFiftyNine' exhibits the following distinguishing characteristics when grown under normal horticultural practices in East Malling, Kent County, the United Kingdom:

1. High yield; and
2. Fruit having less seed, better appearance, and improved shelf-life.

'DrisStrawFiftyNine' was selected for its yield potential, fruit with less seed, fruit size, fruit appearance, and fruit shelf-life.

DESCRIPTION OF THE DRAWINGS

This new strawberry plant is illustrated by the accompanying photographs which show fruit and leaves of the plant. The colors shown are as true as can be reasonably obtained by conventional photographic procedures. The photographs are of plants that are six months old.

FIG. **1** illustrates whole fruit of variety 'DrisStrawFifty-Nine'.

FIG. **2**A illustrates the upper surface of a leaf of variety 'DrisStrawFiftyNine'.

FIG. **2**B illustrates the lower surface of a leaf of variety 'DrisStrawFiftyNine'.

DESCRIPTION OF THE NEW VARIETY

The following detailed descriptions set forth the distinctive characteristics of 'DrisStrawFiftyNine'. The data which define these characteristics is based on observations taken in East Malling, Kent County, the United Kingdom from 2012 to 2016. 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. 'DrisStrawFiftyNine' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawFiftyNine' was taken from plants that were six months old. The indicated values represent averages calculated from measurements of several plants. Color references are primarily to The RHS Colour Chart of The Royal Horticultural Society of London (RHS) (2007 edition). Descriptive terminology follows the *Plant Identification Terminology, An Illustrated Glossary,* 2nd edition by James G. Harris and Melinda Woolf Harris, unless where otherwise defined.

DETAILED BOTANICAL DESCRIPTION OF THE PLANT

Classification:

Species.—*Fragaria* x *ananassa.*

Common name.—Strawberry.

Denomination.—'DrisStrawFiftyNine'.

Parentage:

Female parent.—The proprietary variety 'UUKE 116-003' (unpatented).

Male parent.—The proprietary variety 'UUKE 167-027' (unpatented),

Plant:

Height.—39.7 cm.

Diameter.—45.0 cm.

Number of crowns/plant.—5.

Growth habit.—Semi-upright.

Stolon:

Average number of daughter plants per square foot.—44.

Diameter at bract.—4.794 mm.

Anthocyanin coloration.—Absent to medium.

Average length.—47.8 cm.

Surface texture.—Glabrous.

Color.—RHS 145A (Strong yellow-green).

Leaf:

Number of leaflets.—Three only.

Color of upper surface.—RHS NN137B (Greyish olive green).

Color of lower surface.—RHS NN137D (Greyish olive green).

Leaf length.—37.5 cm.

Leaf width.—19 cm.

Blistering.—Absent or weak.

Glossiness.—Medium.

Variegation.—Absent.

Terminal leaflets.—Length: 10.9 cm. Width: 9.1 cm. Length/width ratio: 1.2. Number of teeth/terminal leaflet: 26. Shape of base: Obtuse. Margin: Crenate. Shape in cross section: Concave.

Petiole.—Length: 26.0 cm. Diameter: 6.08 mm. Attitude of hairs: Horizontal. Bract frequency (number present on each petiole): 1. Petiole color: RHS 145A (Strong yellow-green).

Petiolule.—Length: 11.12 mm. Diameter: 2.78 mm. Petiolule color: RHS 145B (Light yellow-green).

Stipule.—Length: 3.9 cm. Width: 8.68 mm. Stipule color: RHS N144D (Strong yellow-green). Anthocyanin coloration: Absent.

Inflorescence:

Position in relation to foliage.—Above.

Pedicel.—Attitude of hairs: Upwards.

Flower.—Flower diameter (petal tip to petal tip on non-flattened flower): 34.46 mm. Arrangement of petals: Overlapping. Stamen: Present. Typical and observed number of flowers per plant: 28.

Petal.—Length: 13.37 mm. Width: 16.14 mm. Length/width ratio: 0.8. Typical and observed petal number: 6. Color of upper side: RHS NN155C (White). Color of lower side: RHS NN155C (White). Apex shape: Rounded. Base shape: Obtuse.

Calyx.—Diameter (sepal tip to sepal tip, measured on back of flower): 44.49 mm. Size of calyx in relation to corolla: Larger.

Sepal.—Length (sepal tip to point of attachment to receptacle): 17.42 mm. Width: 10.40 mm. Typical and observed sepal number: 6. Sepal color: RHS N134A (Dark yellowish green). Apex shape: Truncate/emarginate. Base shape: Orbicular.

Fruit:

Length.—48.69 mm.

Width.—40.62 mm.

Length/width ratio.—1.2.

Fruit hollow length.—26.30 mm.

Fruit hollow width.—16.38 mm.

Fruit hollow length/width ratio.—1.6.

Shape.—Conical.

Color.—RHS 44A (Vivid red).

Position of achenes.—Level with surface.

Position of calyx attachment.—Level with fruit.

Diameter of calyx in relation to diameter of fruit.—Much larger.

Attitude of sepals.—Upwards.

Color of flesh (*excluding core*).—RHS 40B (Vivid reddish orange).

Color of core.—RHS 41C (Moderate reddish orange).

Evenness of color.—Even or very slightly uneven.

Glossiness.—Medium.

Evenness of surface.—Even or very slightly uneven.

Width of band without achenes.—Absent or very narrow.

Firmness.—Medium.

Cavity.—Absent or small.

Brix percentage.—9.1%.

Average number of achenes per fruit.—322.

Fruit market use.—Fresh consumption.

Fruit shelf life.—longer shelf life as compared to fruit of female parent 'UUKE 116-003 '.

Fruiting truss.—Length: 35.7 cm. Diameter: 5.66 mm. Number of berry per fruiting truss: 9.

Production:

Flowering interval.—May to September.

Harvest interval.—Mid-May to early September.

Type of bearing.—Fully remontant.

Productivity.—1.023 kg to 1.050 kg of fruit per season from two-month-old to six-month-old plants when grown in East Malling, Kent County, the United Kingdom.

Resistance to diseases:

Powdery mildew (*Podosphaera macularis*).—Moderately resistant.

Verticillium wilt.—Moderately susceptible.

COMPARISON WITH PARENTAL AND COMMERCIAL VARIETIES

'DrisStrawFiftyNine' differs from the proprietary female parent 'UUKE 116-003' (unpatented) in that plants of 'DrisStrawFiftyNine' produce higher yields of fruit as compared to plants of 'UUKE 116-003'. Additionally, fruit of 'DrisStrawFiftyNine' are less seedy, larger in size, better in appearance, and have a longer shelf-life as compared to fruit of 'UUKE 116-003'.

'DrisStrawFiftyNine' differs from the proprietary male parent 'UUKE 167-027' (unpatented) in that plants of 'DrisStrawFiftyNine' produce higher yields of fruit as compared to plants of 'UUKE 167-027'. Additionally, fruit of 'DrisStrawFiftyNine' are smaller in size as compared to fruit of "UUKE 167-027'.

'DrisStrawFiftyNine' differs from the commercial variety 'DrisStrawThirtyFive' (U.S. Plant Pat. No. 24,745) in that plants of 'DrisStrawFiftyNine' have an upright growth habit, while plants of 'DrisStrawThirtyFive' have a semi-upright growth habit. Additionally, plants of 'DrisStrawFiftyNine' have medium vigor, while plants of 'DrisStrawThirtyFive' have strong vigor. Moreover, the type of bearing of 'DrisStrawFiftyNine' is fully remontant, while the type of bearing of 'DrisStrawThirtyFive' is not remontant.

'DrisStrawFiftyNine' differs from the commercial variety 'DrisStrawTwo' (U.S. Plant Pat. No. 18,878) in that terminal leaflets of 'DrisStrawFiftyNine' have an obtuse shape of base, while terminal leaflets of 'DrisStrawTwo' have a rounded shape of base. Additionally, fruit of 'DrisStrawFiftyNine' have absent or a very narrow width of band without achenes, while fruit of 'DrisStrawTwo' have a medium width of band without achenes. Moreover, fruit of 'DrisStrawFiftyNine' have a calyx attachment that is level with fruit, while fruit of 'DrisStrawTwo' have a calyx attachment that is raised from fruit.

We claim:

1. A new and distinct variety of strawberry plant named 'DrisStrawFiftyNine' as shown and described herein.

* * * * *

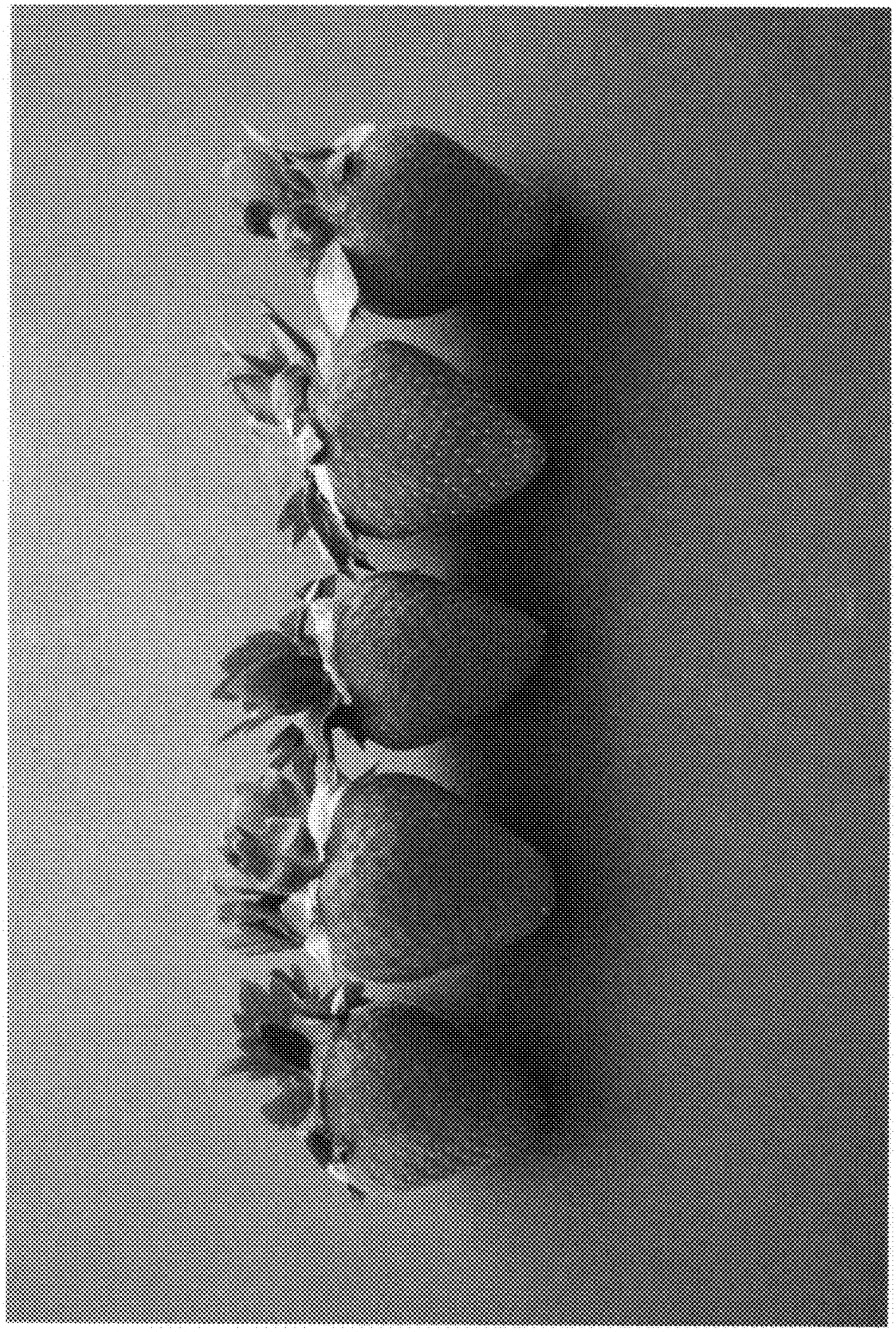

FIG. 1

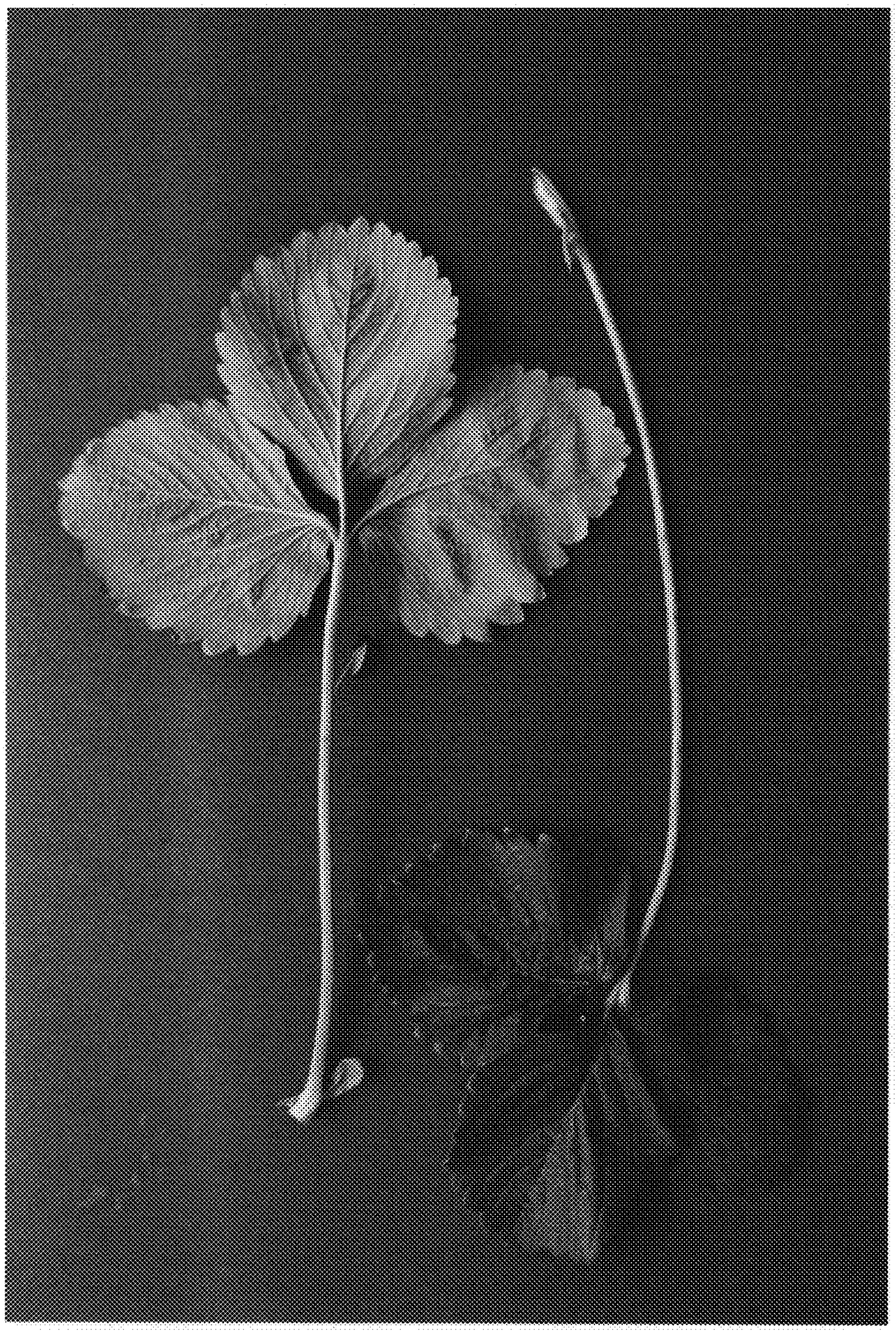

FIG. 2A

FIG. 2B