



US00PP34777P2

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

(10) **Patent No.:** **US PP34,777 P2**
(45) **Date of Patent:** **Nov. 29, 2022**

(54) **STRAWBERRY PLANT NAMED**
‘DRISSTRAWNINETYEIGHT’
(50) Latin Name: *Fragaria x ananassa*
Varietal Denomination: **‘DrisStrawNinetyEight’**
(71) Applicant: **Driscoll’s, Inc.**, Watsonville, CA (US)
(72) Inventors: **Omar Carrillo Mendoza**, Watsonville,
CA (US); **Philip J. Stewart**,
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.: **17/748,693**

(22) Filed: **May 19, 2022**

(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./156, 208, 209
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP1,745 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. et al.
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.
PP12,899 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	Lopez
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.
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 et al.
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.

(Continued)

Primary Examiner — Karen M Redden
(74) Attorney, Agent, or Firm — Morrison & Foerster
LLP

(57) **ABSTRACT**

A new and distinct variety of strawberry plant named ‘DrisStrawNinetyEight’, particularly selected for its fruit size, ease of harvest, high and early yield potential, and flavor of fruit, is disclosed.

5 Drawing Sheets

(56)

References Cited

U.S. PATENT DOCUMENTS

PP23,378	P2	2/2013	Pullen et al.	PP29,748	P2	10/2018	Vitten et al.
PP23,382	P2	2/2013	Ferguson et al.	PP29,749	P2	10/2018	Stewart et al.
PP23,383	P2	2/2013	Ferguson et al.	PP30,775	P2	8/2019	Carrillo Mendoza et al.
PP23,400	P2	2/2013	Ferguson et al.	PP30,789	P2	8/2019	Ferguson et al.
PP23,401	P2	2/2013	Pullen et al.	PP30,818	P2	8/2019	Pakozdi et al.
PP23,459	P2	3/2013	Stewart et al.	PP30,851	P2	8/2019	Fear et al.
PP23,506	P3	4/2013	Ferguson et al.	PP30,936	P2	10/2019	Stewart et al.
PP23,517	P3	4/2013	Ferguson et al.	PP31,083	P2	11/2019	Carrillo Mendoza et al.
PP24,096	P3	12/2013	Fear et al.	PP31,233	P2	12/2019	Pakozdi et al.
PP24,317	P3	3/2014	Ferguson et al.	PP31,527	P3	3/2020	Carrillo Mendoza et al.
PP24,333	P3	3/2014	Vitten et al.	PP31,655	P2	4/2020	Carrillo Mendoza et al.
PP24,395	P3	4/2014	Vitten et al.	PP31,703	P2	4/2020	Stewart et al.
PP24,533	P3	6/2014	Ferguson et al.	PP31,827	P2	6/2020	Ferguson et al.
PP24,745	P2	8/2014	Vitten et al.	PP31,896	P2	6/2020	Pakozdi et al.
PP25,408	P3	4/2015	Vitten et al.	PP31,935	P2	7/2020	Pakozdi et al.
PP25,437	P3	4/2015	Vitten et al.	PP32,079	P2	8/2020	Carrillo Mendoza et al.
PP25,698	P3	7/2015	Ferguson et al.	PP32,080	P2	8/2020	Ferguson et al.
PP25,699	P3	7/2015	Stewart et al.	PP32,271	P2	10/2020	Ferguson et al.
PP25,747	P3	7/2015	Kibbe et al.	PP32,305	P3	10/2020	Pakozdi et al.
PP25,866	P3	9/2015	Ferguson et al.	PP32,498	P2	11/2020	Carrillo Mendoza et al.
PP26,800	P3	6/2016	Stewart et al.	PP32,499	P3	11/2020	Jacobs et al.
PP26,801	P3	6/2016	Stewart et al.	PP32,500	P3	11/2020	Stewart et al.
PP26,802	P3	6/2016	Rodriguez Alcazar et al.	PP32,801	P2	2/2021	Ferguson et al.
PP27,442	P2	12/2016	Kibbe et al.	PP32,814	P2	2/2021	Stewart et al.
PP27,645	P3	2/2017	Vitten et al.	PP32,824	P2	2/2021	Stewart et al.
PP27,682	P3	2/2017	Kibbe et al.	PP33,070	P2	5/2021	Mendoza et al.
PP27,711	P3	2/2017	Vitten et al.	PP33,090	P2	5/2021	Mendoza et al.
PP27,813	P3	3/2017	Ferguson et al.	PP33,283	P2	7/2021	Stewart et al.
PP29,289	P3	5/2018	Vitten et al.	PP33,513	P2	9/2021	Stewart et al.
PP29,728	P2	10/2018	Stewart et al.	PP33,737	P2	12/2021	Hernandez et al.
PP29,729	P2	10/2018	Kibbe et al.	PP33,738	P2	12/2021	Stewart et al.
PP29,730	P2	10/2018	Kibbe et al.	PP34,072	P2	3/2022	Mendoza et al.
PP29,731	P2	10/2018	Ferguson et al.	PP34,212	P2	5/2022	Jacobs et al.
PP29,747	P2	10/2018	Vitten et al.	PP34,241	P2	5/2022	Pakozdi et al.
				PP34,273	P2	5/2022	Mendoza et al.
				PP34,274	P2	5/2022	Ferguson et al.
				2003/0079263	P1	4/2003	Gilford et al.
				2013/0276182	P1	10/2013	Fear et al.

**STRAWBERRY PLANT NAMED
'DRISSTRAWNINETYEIGHT'**

Latin name: Botanical classification: *Fragaria x ananassa*.

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

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 'DrisStrawNinetyEight'.

Strawberry plant variety 'DrisStrawNinetyEight' originated from a controlled cross between the proprietary female parent '924AB 69' (unpatented) and the male parent 'DrisStrawSixtyFour' (U.S. Plant Pat. No. 30,936). Progeny plants from this cross, including 'DrisStrawNinetyEight', were asexually propagated via stolons in Huamantla, Tlaxcala, Mexico in June 2016. Strawberry plant variety 'DrisStrawNinetyEight' was later specifically identified and selected in Tangancicuaro, Michoacan, Mexico in November 2016.

'DrisStrawNinetyEight' was subsequently asexually propagated via stolons, and has undergone testing at test plots in Tangancicuaro and Tapalpa, Jalisco, Mexico for five years (2017 to 2022). The present variety has been found to be stable and reproduce true to type through successive asexual propagations via stolons and tissue culture.

'DrisStrawNinetyEight' was particularly selected for its fruit size, ease of harvest, high and early yield potential, and flavor of fruit.

DESCRIPTION OF THE DRAWINGS

This new strawberry plant is illustrated by the accompanying photographs. The colors shown are as true as can be reasonably obtained by conventional photographic procedures. Unless otherwise indicated, the photographs are of plants that are six months old.

FIG. 1 illustrates whole fruit of variety 'DrisStrawNinetyEight'.

FIG. 2 illustrates longitudinal sections of fruit of variety 'DrisStrawNinetyEight'.

FIG. 3 illustrates the upper surface (top row) and lower surface (bottom row) of flowers of variety 'DrisStrawNinetyEight'.

FIG. 4 illustrates the upper surface (top row) and lower surface (bottom row) of leaves of variety 'DrisStrawNinetyEight'.

FIG. 5 illustrates whole plants of variety 'DrisStrawNinetyEight'.

DETAILED BOTANICAL DESCRIPTION

The following detailed descriptions set forth the distinctive characteristics of 'DrisStrawNinetyEight'. The data which define these characteristics is based on observations taken in Tangancicuaro and Tapalpa, Mexico from 2017 to 2022. 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. 'DrisStrawNinetyEight' has not been observed under all possible environmental conditions. The botanical description of 'DrisStrawNinetyEight' 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 R.H.S. Colour Chart of The Royal Horticultural Society of London (R.H.S.) (2015 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.

Classification:

Species.—*Fragaria x ananassa*.

Common name.—Strawberry.

Denomination.—'DrisStrawNinetyEight'.

Parentage:

Female parent.—Proprietary strawberry plant '924AB 69' (unpatented).

Male parent.—'DrisStrawSixtyFour' (U.S. Plant Pat. No. 30,936).

Plant:

Height.—35.3 cm.

Diameter.—29.8 cm.

Height/width ratio.—1.18.

Number of crowns per plant.—4.0.

Growth habit.—Upright.

Density of foliage.—Medium.

Vigor.—Medium.

Stolon:

Overall color.—RHS N144B (Strong yellow).

Anthocyanin coloration.—Absent or very weak.

Anthocyanin color (when present).—RHS 63A (Strong purplish red).

Density of pubescence.—Sparse.

Fruiting truss:

Length (from crown to base of terminal flower or fruit).—17.72 cm.

Diameter (at base of truss).—1.2036 cm.

Number of berries per truss.—9.6.

Attitude at first picking.—Semi-erect.

Color (at base of truss).—RHS 145B (Light yellow green).

Leaf:

Number of leaflets.—Three only.

Color of leaf upper surface.—RHS 139A (Dark yellowish green).

Color of leaf lower surface.—RHS 147B (Moderate yellow green).

Blistering.—Strong.

Glossiness.—Absent or weak.

Variation.—Absent.

Terminal leaflet.—Length: 7.6 cm. Width: 7.5 cm.

Length/width ratio: 1.01. Number of teeth per terminal leaflet: 26.1. Overall shape: Orbicular. Shape of base: Obtuse. Shape of apex: Rounded. Margin: Serrate to crenate. Margin profile: Involute (Margins rolled inwards). Shape in cross section: Concave.

Petiole.—Length: 132 mm. Diameter: 3.612 mm.

Overall color: RHS 144B (Strong yellow green).

Pubescence: Medium. Attitude of hairs: Horizontal.

Bract frequency (number present on each petiole): 1.58.

Petiolule.—Length: 17.37 mm. Diameter: 1.99 mm.

Color: RHS 141C (Strong yellowish green).

Stipule.—Length: 18.33 mm. Width: 9.73 mm. Stipule

color: RHS 137C (Moderate yellow green). Anthocyanin

coloration: Strong. Anthocyanin color: RHS

46A (Strong red). Pubescence: Sparse.

Inflorescence:

Number of flowers per plant.—20.4.

Position of inflorescence in relation to foliage.—Above foliage.

Flowering interval.—October to February.

Pedicel.—Attitude of hairs: Upwards.

Flower.—Flower diameter (petal tip to petal tip on non-flattened flower): 24.8 mm. Arrangement of petals: Free. Size of calyx in relation to corolla: Same size. Stamen: Present. Receptacle color: RHS N144C (Strong yellow green). Anther color: RHS 153C (Strong greenish yellow).

Petal.—Length: 14.2 mm. Width: 13.8 mm. Length/

width ratio: 1.02. Number of petals per flower: 6.

Color of upper surface: RHS NN155C (White).

Color of lower surface: RHS NN155B (White).

Overall shape: Orbicular. Shape of apex: Rounded.

Margin: Entire. Shape of base: Concavo-convex.

Calyx.—Diameter (sepal tip to sepal tip, measured on back of flower): 47.5 mm.

Sepal.—Length: 21.3 mm. Width: 11.65 mm. Number

of sepals per flower: 15.8. Overall shape: Elliptical.

Margin: Serrate.

Fruit:

Fruit size.—Length: 41.6 mm. Width: 34.9 mm.

Length/width ratio: 1.19.

Fruit hollow.—Length: 15.501 mm. Width: 9.141 mm.

Length/width ratio: 1.69.

Shape.—Cordate.

Difference in shape of terminal and other fruits.—None or very slight.

Fruit color.—RHS 45B (Vivid red).

Evenness of color.—Slightly uneven.

Glossiness.—Strong.

Evenness of surface.—Slightly uneven.

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

Position of achenes.—Level with surface.

Position of calyx attachment.—Level with fruit.

Attitude of sepals.—Downwards.

Diameter of calyx in relation to diameter of fruit.—

Slightly larger.

Adherence of calyx.—Very strong.

Firmness.—Medium firm.

Color of flesh (excluding core).—RHS N34B (Strong reddish orange).

Evenness of flesh color.—Slightly uneven.

Distribution of flesh color.—Marginal and central.

Color of core.—RHS 35C (Strong yellowish pink).

Sweetness/soluble solids (in ° Brix).—10.5.

Titrate acidity (% as citric acid).—0.37%.

Individual fruit weight.—26.4 g/fruit.

Achenes.—Number of achenes per fruit: 76. Weight:

0.010 g/achene. Color of upper (sunward) side: RHS

N34A (Moderate red). Color of lower (shaded) side:

RHS 1A (Brilliant greenish yellow).

Fruiting.—Harvest interval: Early October to mid-

March. Type of bearing: Fully remontant. Productivity:

21,584 kg to 30,741 kg of fruit per hectare per

season from six-month-old plants when grown in

Tangancicuaro, Michoacan, Mexico.

COMPARISON WITH PARENTAL AND
REFERENCE VARIETIES

‘DrisStrawNinetyEight’ differs from the female parent proprietary strawberry plant ‘924AB 69’ (unpatented) in that ‘DrisStrawNinetyEight’ has earlier fruit production, larger fruit size, and sweeter fruit than ‘924AB 69’.

‘DrisStrawNinetyEight’ differs from the male parent ‘DrisStrawSixtyFour’ (U.S. Plant Pat. No. 30,936) in that ‘DrisStrawNinetyEight’ has an upright growth habit, strong leaf blistering, absent or very weak stolon anthocyanin coloration, and strong stipule anthocyanin coloration, whereas ‘DrisStrawSixtyFour’ has a spreading growth habit, medium leaf blistering, very strong stolon anthocyanin coloration, and weak stipule anthocyanin coloration.

‘DrisStrawNinetyEight’ differs from the reference variety ‘Florida Radiance’ (U.S. Plant Pat. No. 20,363) in that ‘DrisStrawNinetyEight’ has cordate fruit shape, medium petiole pubescence, serrate to crenate terminal leaflet margins, and fully remontant type of bearing, whereas ‘Florida Radiance’ has fruit with a mostly medium conic shape, light to medium petiole pubescence, crenate terminal leaflet margins, and non-remontant type of bearing.

‘DrisStrawNinetyEight’ differs from the reference variety ‘Sayulita’ (unpatented) in that ‘DrisStrawNinetyEight’ has a medium fruit size, fruit with medium firmness, and an average fruit Brix value of 10.5, whereas ‘Sayulita’ has a large fruit size, firm fruit, and average fruit Brix value of 7.8.

We claim:

1. A new and distinct variety of strawberry plant named ‘DrisStrawNinetyEight’ as shown and described herein.

* * * * *



FIG. 1

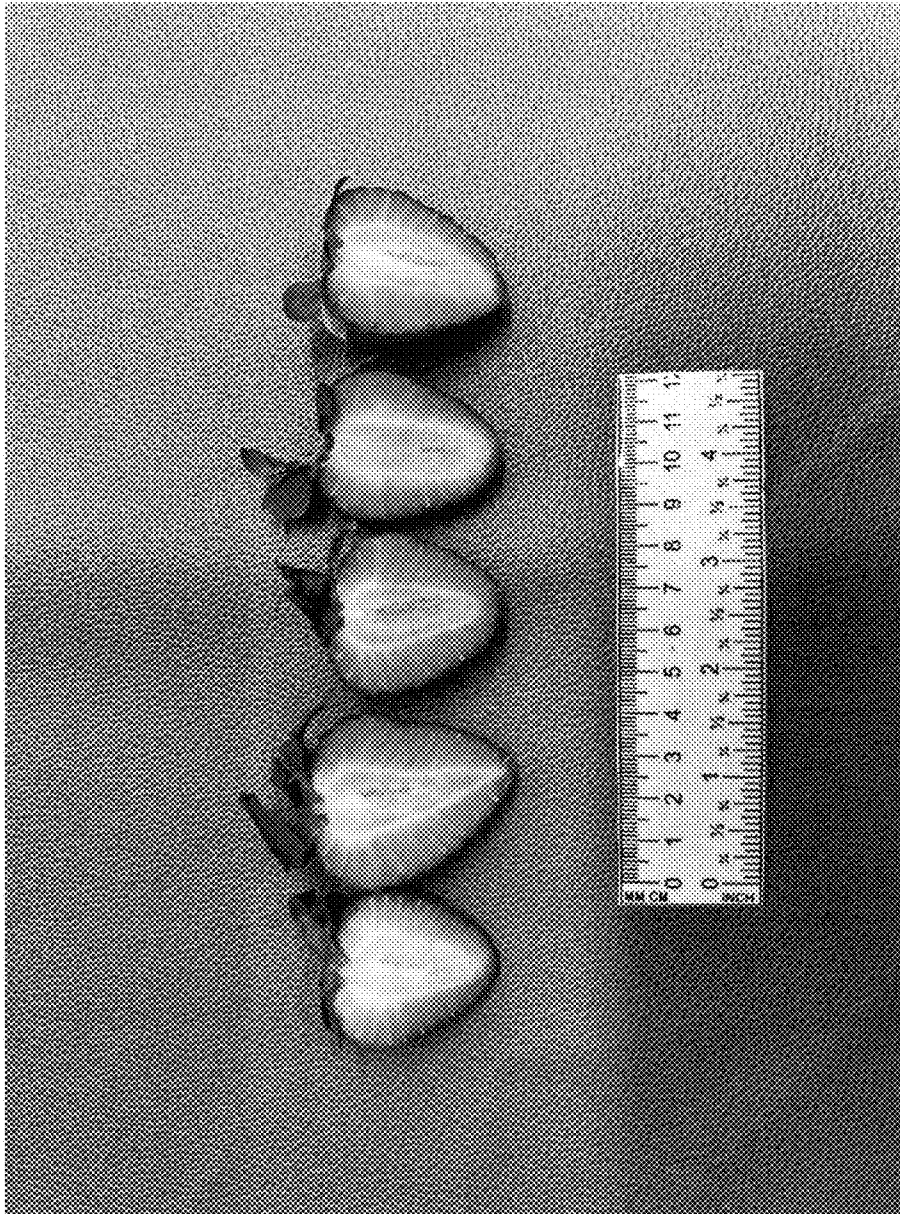


FIG. 2

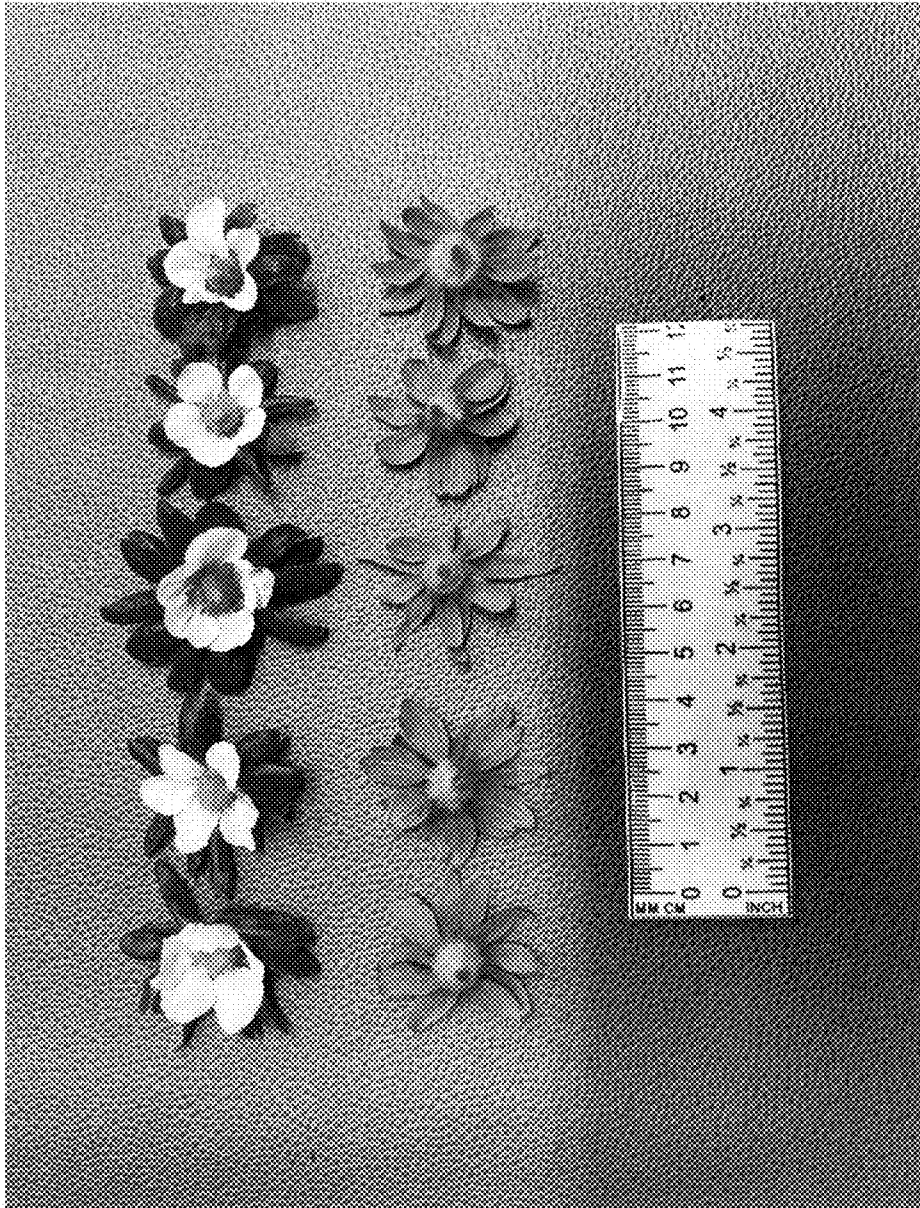


FIG. 3

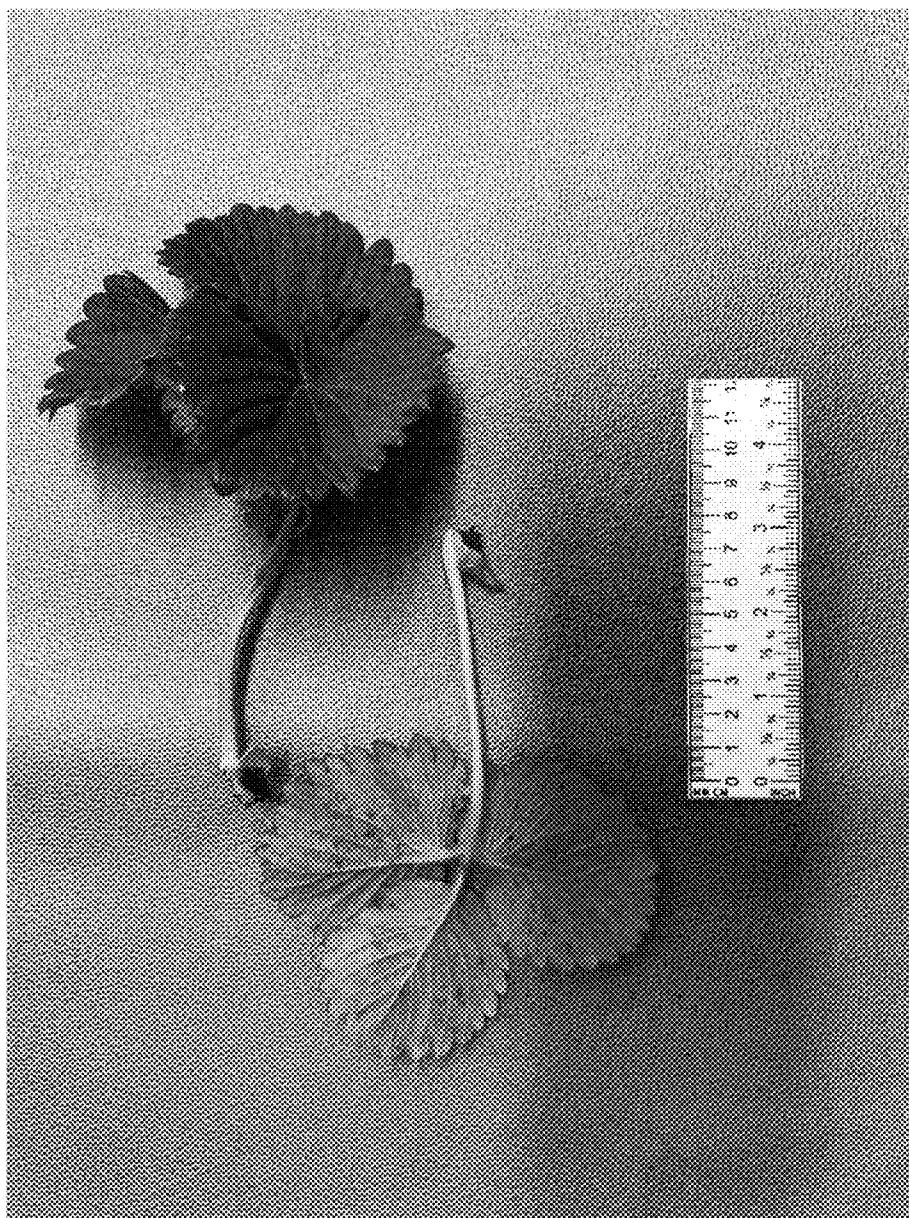


FIG. 4



FIG. 5