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**Bagdasarian**

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(54) **STRAWBERRY PLANT NAMED 'RUBY JUNE'**

(50) Latin Name: *Fragaria ananassa*  
Varietal Denomination: **Ruby June**

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**A01H 5/08** (2006.01)

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

(58) **Field of Classification Search**

USPC ..... **Plt./209**  
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of strawberry plant named 'Ruby June.' This new short day strawberry variety which is partially remontant, exhibiting everbearing tendencies. The variety is characterized by plants with medium to high vigor which produce large, firm conical fruit with great flavor, and an attractive medium red exterior color and a warm red interior color.

**6 Drawing Sheets**

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Latin name of the genus and species of the plant claimed:  
*Fragaria ananassa*.

Variety denomination: 'Ruby June'.

**BACKGROUND OF THE INVENTION**

1. Field of Invention

The present invention relates to a new and distinct variety of strawberry named 'Ruby June.' This new short day strawberry variety is the result of a controlled cross in an ongoing breeding program made by the inventor, Jimmy Bagdasarian, in 2008. The variety is botanically known as *Fragaria ananassa*.

The primary market for the 'Ruby June' variety is for the fresh market sales of the fruit. 'Ruby June' produces large conical berries with few creases, and with good firmness.

2. Description of Relevant Prior Art

The controlled cross, conducted in the ongoing breeding program, which resulted in the 'Ruby June' variety, was between the strawberry variety designated '10B131,' a male, and a strawberry variety designated '2G16,' a female.

The male parent, '10B131,' is an unreleased proprietary variety having the following characteristics: medium day-neutral; globose habit; tight density; leaves which are dark green in color; and, the variety exhibits medium plant vigor.

The female parent, '2G16,' is an unreleased proprietary variety having the following plant characteristics: strong short day; compact growth habit; leaves have low glossiness with considerable blistering, and are dark green in color; medium firm fruit has an excellent flavor, and an attractive medium red interior color; and the variety exhibits medium plant vigor.

The leaves of 'Ruby June' have medium glossiness and exhibit medium leaf blistering in comparison to the leaves of the female parent, '2G16,' which have low leaf gloss and

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considerable leaf blistering. The leaf color of 'Ruby June' is dark green like both of its parent varieties.

The aforementioned controlled cross was carried out in a breeding program at Santa Cruz, Calif., USA. Pollen taken from a male '10B131' plant pollinated a '2G16' female plant. The flowers were covered so that no other pollen could contaminate the procedure.

Strawberries developed, were later harvested and the seeds resulting from this cross were extracted and germinated in a greenhouse at Redding, Calif., USA. The resulting seedlings were transplanted to Shastina, Calif. in 2009, grown for an additional period of time and allowed to propagate asexually. Plants were then harvested and planted in breeding plots in early to mid-October in: Oxnard, Calif. (Ventura County); and Watsonville, Calif. (Monterey County). The selection of the new variety was first made in Watsonville, Calif. This selection was designated '33K46' in 2010.

The new variety underwent further testing and was propagated asexually by stolons in breeding plots. Further testing was conducted under growing conditions present in both Northern and Southern districts in test plots in: Macdoel, Calif. (Siskiyou County); and Manteca, Calif. (San Joaquin County).

25 The new variety has also been "meristemmed." Small pieces of plant material (approximately 0.5 mm in diameter), consisting of the undifferentiated meristem tissue and one or two leaf primordia, were removed from the buds on crowns of young daughter plants, then placed on nutrient medium, and new plants were grown from them. Planting stock from the "meristemmed" plants are growing in a screenhouse located in Redding, Calif.

30 The new variety was named 'Ruby June.' The propagules of 'Ruby June' ('33K46') are identical to the original plant in all distinguishing characteristics; accordingly, the propagation discussed above has demonstrated that the traits dis-

closed herein remain fixed and true to type through successive generations of asexual reproduction.

#### SUMMARY OF THE INVENTION

Ruby June is a short day variety exhibiting the following combination of characteristics, which have been observed repeatedly, and which distinguish this strawberry plant as a new and distinct variety:

1. The variety produces medium to large sized fruit;
2. The fruit is conic, with some periodic tips and creases;
3. The fruit has a medium red exterior color and a medium-light red interior color;
4. The fruit is sweet tasting, with very good flavor;
5. The fruit is firm with good retention of quality, appearance, and firmness;
6. The plants of the variety are characterized by medium high vigor, with a large root system, and a semi-upright growth pattern; and,
7. The variety is partially remontant.

The fruit produced by the 'Ruby June' plant variety is an attractive medium red exterior color with medium high glossiness. The color of the fruit is even all the way to the top.

The fruit of 'Ruby June' demonstrates other characteristics and qualities that are desired by fresh market strawberry sales companies. The medium red color is preferred by many shippers of fresh strawberries over the deeper red colored berries which are more likely to be viewed as overripe by buyers than the lighter colored berries.

The plant vigor of 'Ruby June' is medium when dug early and planted immediately; however, plant vigor is high in Northern districts when plants are dug late. Runner production also varies with the location of the planting, with lower runner production in Southern districts and moderate runner production in Northern districts.

#### BRIEF DESCRIPTION OF THE DRAWING

The accompanying color photographs, identified as FIGS. 1 through 7, show the appearance of typical specimens of the new strawberry variety, initially designated '33K46,' and now named 'Ruby June.'

These Figures depict the colors, as nearly true as it is reasonably possible given differences in color illustrations of this character. Accordingly, color in the photographs may differ slightly from the colors discussed in the botanical description.

FIG. 1 shows typical leaf and petiole structures of 'Ruby June' at mid-season;

FIG. 2 shows typical leaf structure;

FIG. 3 shows a selection of typical mid-season fruit;

FIG. 4 shows typical fruit shape and calyx position over the berry of 'Ruby June';

FIG. 5 shows a transverse cross-section of typical fruit internal coloration and core size; and,

FIG. 6 shows typical fruiting plants in a field.

#### DETAILED BOTANICAL DESCRIPTION OF THE PLANT

'Ruby June' is a new and distinct variety of strawberry, genus and species *Fragaria × ananassa*. It is the result of a cross between its male parent, '10B131,' an unreleased proprietary variety, and '2G16,' its female parent. The male parent, '10B131,' is a medium day neutral variety, and

female parent, '2G16,' is a strong short day variety. 'Ruby June' is a short-day variety with everbearing tendencies. The plants of the new variety have a semi-upright growth habit, with medium high vigor and a large root system. 'Ruby June' exhibits several characteristics which are improvements over one or both of its parent varieties, and/or other known cultivars. The characteristics of 'Ruby June' were observed in plants aged four to eight months from planting. These characteristics and comparisons with other cultivars are discussed following.

The various data set forth for 'Ruby June' in Tables 1, 2, and 3 was collected and evaluated in 2012 through 2014, from plants grown at the Meridian ranch test plot, in Prunedale, Monterey County, Calif. Color terminology where noted herein for 'Ruby June' is in accordance with the Panton Color Formula Guide GP 1201.

In Table 1, the observed characteristics of 'Ruby June' are set forth.

TABLE 1

Detailed Description of Characteristics of 'Ruby June'

#### SPECIFICATION:

25	Genus/Species	<i>Fragaria × Ananassa</i> .
	Market name	Strawberry.
	PARENTS:	
30	Male	Proprietary variety '10B131' (unpatented).
	Female	Proprietary variety '2G16' (unpatented).
	PLANT:	
35	Type	Short Day with everbearing tendencies.
	Growth habit	Upright.
	Foliage density	Dense.
	Vigor	Medium to high.
	Height	Average: 33.8 cm; range: 31 cm to 37 cm.
	Width	Average: 46.9 cm; range: 38 cm to 56 cm.
	Crowns	Multiple crowns produced early after planting.
40	Disease tolerance	Test plants, grown in plots in areas with disease pressure, have shown excellent tolerance. In early observations of plants grown in a coastal California area, plants have exhibited excellent tolerance to <i>Fusarium oxysporum</i> (Fusarium wilt) as compared to 'Monterey' cultivar plants grown in the same area.
	LEAF:	
45	Width	Average: 21.95 cm; range: 19.5 cm to 24.5 cm.
	Color	Adaxial Surface: green 350 U. Abaxial Surface: green 364 U.
	Pubescence	Medium density.
	Inter-vein blistering	Medium.
	Glossiness	Medium.
50	Variegation	None.
	TERMINAL LEAFLET:	
55	Length	Average: 11.31 cm; range: 9.0 cm to 13.3 cm.
	Width	Average: 8.42 cm; range: 6.6 cm to 9.6 cm.
	Ratio length to width	1.34.
	Margin	Serrate to crenate.
	Leaf shape	Orbicular.
	Base shape	Acute.
	Cross-section shape	Concave.
60	PETIOLE:	
	Pubescence	Medium-high density; direction: almost perpendicular.
	Petiole color	Green 365 U.
	Petiole length	Average: 21.75 cm; range: 17.5 cm to 25 cm.
65	Petiole diameter	Average: 4.93 mm; range: 3.9 mm to 5.8 mm.

TABLE 1-continued

Detailed Description of Characteristics of 'Ruby June'	
<u>STIPULE:</u>	
Stipule anthocyanin coloration	Present, but mild.
Length	Average: 33.15 mm; range 28.1 to 38.0 mm.
Width	Average: 15.4 mm range 10.9 to 22.9 mm.
<u>STOLON:</u>	
Stolon anthocyanin coloration	Present; medium intensity.
Pubescence	Medium high; upward direction.
Diameter	Average: 4.0 mm; range: 3.5 mm to 4.4 mm.
<u>INFLORESCENCE:</u>	
Flowering time	Early.
Position	Primary bract at or below foliage with bloom above foliage
Number of blooms	Average: 4.7; range: 3 to 8.
Length	Fruiting clusters mid-season; average 32.45 cm; range: 25 cm to 39.5 cm.
Flower	Average diameter: 27.31 mm; range: 19.37 mm to 34.12 mm.
Petal arrangement	Touching.
Petals	Average number per flower: 5.2; range: 5 to 6.
Petal Length	Average: 11.8 mm; range: 9.1 mm to 13.7 mm.
Petal Width	Average: 10.75 mm; range: 8.1 mm to 13.4 mm.
Ratio length to width	1.10.
Petal Color	Upper side: white, 11-4201 TPX.
Calyx	Size in relation to corolla: slightly larger.
Calyx color	Adaxial Surface: green 364 U. Abaxial Surface: green 370 U.
Stamens	Average number: 23.5; range 21 to 34.
Pedicel	Attitude of hairs is upwards oblique.
<u>FRUIT:</u>	
Bearing	Partially remontant.
Shape	Conical.
Length	Average: 4.4 cm; range: 3.6 cm to 5.0 cm.
Width	Average: 3.6 cm; range: 3.3 cm to 4.0 cm.
Ratio length to width	1.22.
Size	Average grams per berry: 30.48 g.
Achenes	Sunken below, to slightly protruding from, the fruit surface.
Glossiness	Medium high.
External color	Medium red 1797 C
Internal color	Flesh, excluding core: Pantone Warm Red C
Evenness of external color	To the top of berry.
Width of band at top	Small.
devoid of achenes	
Fruit center	Little to some hollowness.
Firmness	Moderately firm, but less than the very firm fruit of 'Sweet Ann.'

In Table 2, the foliar characteristics of 'Ruby June' are compared with the varieties 'Aromas' (U.S. Plant Pat. No. 10,451), 'Sweet Ann' (U.S. Plant Pat. No. 22,472) and 'Albion' (U.S. Plant Pat. No. 16,228). In Table 3, the flower and fruit characteristics of 'Ruby June' are compared with the varieties 'Sweet Ann' (U.S. Plant Pat. No. 22,472) and 'Albion' (U.S. Plant Pat. No. 16,228). In Table 4, comparison of leaf and fruit colors is made between 'Ruby June' and several commercially grown cultivars.

Color terminology where noted herein respecting all cultivars, except 'Albion,' is in accordance with the Pantone Color Formula Guide. Color terminology respecting 'Albion' is in reference to the Munsell color system.

#### Plants and Foliage

The form and structure of the plants of 'Ruby June' are semi-upright with dense foliage. In comparison, the plants of

'Sweet Ann,' which has the same male parent ('10B131') as 'Ruby June,' are erect and open. The plants 'Ruby June' are slightly shorter than those of 'Sweet Ann.' However, the plant spread or width of 'Ruby June' is significantly greater than any of the comparison varieties. The plants of 'Ruby June,' are large in comparison to many other commercial cultivars grown in fresh strawberry production fields in California. 'Ruby June' also exhibits high plant vigor in the Northern districts.

In Table 3, comparative data for plant and leaf characteristics for 'Ruby June,' 'Aromas,' 'Sweet Ann' and 'Albion' are set forth.

TABLE 2

Foliar Characteristics of 'Ruby June' Compared to 'Aromas,' 'Sweet Ann,' and 'Albion'				
Foliar	Cultivar Name			
Characteristic	'Ruby June'	'Aromas'	'Sweet Ann'	'Albion'
<u>Plant height (mm)</u>				
Average	338	272	380	252
Range	310-370	240-300	290-480	210-270
<u>Plant spread (mm)</u>				
Average	469	323	420	341
Range	380-560	300-360	330-510	304-394
<u>Leaf width (mm)</u>				
Average	219.5	135	165	135
Range	195-245	120-150	130-195	105-170
<u>Mid-tier leaflet length (mm)</u>				
Average	113	79	88	73
Range	90-133	70-90	72-105	50-95
<u>Petiole length (mm)</u>				
Average	84	74	67	68
Range	66-96	60-80	52-88	50-95
<u>Petiole diameter (mm)</u>				
Average	217.5	174	220	105
Range	175-250	140-210	150-280	70-130
<u>Leaf convexity</u>				
Average	4.93	4.5	3.74	4.1
Range	3.90-5.80	4-6	3.01-4.29	3.7-4.6
Number leaflets per leaf	3	3	3	3
<u>Leaflet base</u>				
Shape	Acute	Moderately oblique	Obtuse	Obtuse
Leaflet base	Medium	Moderate	Medium	Light-moderate
<u>Leaf pubescence</u>				
Leaf pubescence	Medium	Moderate	Medium	Heavy
Petiole pubescence	Medium	Moderate	Medium	density
Petiole pubescence	High	Heavy	Perpendicular	Perpendicular
Petiole direction	Nearly perpendicular	Perpendicular	Perpendicular	Perpendicular
<u>Stipule length (mm)</u>				
Average	33.15	34.2	N/A	23.3
Range	28.1-38.0	30-39		14-34
Stipule anthocyanin coloration	Weak yes	Very weak	Weak yes	Yes

TABLE 2-continued

Foliar Characteristics of 'Ruby June' Compared to 'Aromas,' 'Sweet Ann,' and 'Albion'				
Foliar	Cultivar Name			
Characteristic	'Ruby June'	'Aromas'	'Sweet Ann'	'Albion'
Leaf margins	Serrate to crenate	Rounded to semi-pointed	Commonly crenate	Semi-pointed
Leaf color adaxial surface	350 U	5GY 4/3	364 U	5GY 5/6
Leaf color abaxial surface	364 U	10Y 4/3	370 U	5GY 4/4
Petiole color	380 U	5GY 8/8	383 U	5GY 7/10
Leaf surface blistering	Medium	Medium to strong	Very weak	Medium
Leaf surface glossiness	Medium	—	Medium	Low

## Flowering and Fruit

'Ruby June' is a short-day variety that is partially remontant. The primary flowers of 'Ruby June' are smaller than those of 'Sweet Ann' and those of 'Albion.' The flowers of 'Ruby June' exhibit five to six petals per bloom, similar to 'Sweet Ann,' and with less variation than the flowers of 'Albion' which range from five to eight petals per bloom.

The fruit of 'Ruby June' has excellent culinary qualities, including: desirable shape and size, lighter red color than 'Albion,' and a sweet strawberry flavor.

In Table 3, comparative data for flower and fruit characteristics for 'Ruby June,' 'Sweet Ann' and 'Albion' are set forth.

TABLE 3

Flower and Fruit Characteristics of 'Ruby June' Compared to 'Sweet Ann' and 'Albion'			
	Cultivar		
Characteristic	'Ruby June'	'Sweet Ann'	'Albion'
Petal number	5-6	5-6	5-8
Petal length (mm): Average	11.8	11.21	12.7
Petal length (mm): Range	9.1-13.7	9.2-13.13	11-15
Petal width (mm): Average	10.75	11.05	12.6
Petal width (mm): Range	8.1-13.4	9.0-13.1	11-14.0
Position of flower (relative to foliage)	most even,	most exposed,	most exposed,
Fruit shape	conical	long conical	long conical
Fruit length (mm): Average	44	49.4	60.5
Fruit length (mm): Range	36-50	—	55-75
Fruit width (mm): Average	36.3	—	49.7
Fruit width (mm): Range	33-40	—	45-55

The leaf and fruit colors of 'Ruby June' is readily distinguished from that of several other commercially grown strawberry varieties. The exterior color of the fruit of 'Ruby June' is medium red, which is slightly darker than the medium red color of the 'Sweet Ann' fruit, but lighter than the deeper colored 'Albion' fruit. The interior color of the fruit of 'Ruby June' is lighter than that of 'Sweet Ann' and of 'Albion' fruit.

Table 4 shows the visually observed characteristics of the leaf and fruit colors of 'Ruby June' as compared to the leaf and fruit color characteristics of 'Sweet Ann,' 'Chandler,' 'Camarosa,' 'Albion,' and 'Catalina.'

TABLE 4

Comparison of Leaf and Fruit Colors of 'Ruby June' to Other Cultivars				
Cultivar	Color Adaxial Leaf	Color Abaxial Leaf	Color External Fruit	Color Internal Fruit
'Ruby June'	364 C	364 U	1797 C	Pantone Warm Red C
'Sweet Ann'	364 U	370 U	185 C	1788 C
'Chandler'	343 C	339 U	186 C	179 C
'Camarosa'	349 C	348 U	193 C	185 C
'Albion'	5GY 3/2	5GY 5/6	SR 3/7	7.R 3/6
'Catalina'	343 C	349 U	193 C	185 C

Leaf samples from 'Ruby June,' along with two advanced proprietary (unpatented) selections from the breeding program: '42J4' and '17J34,' were submitted to a lab for allelic fingerprint comparison to the control variety, 'Camarosa,' and the over two hundred other varieties of strawberry in its data base. The allelic fingerprint analysis establishes that 'Ruby June' is distinct and unique compared to the lab's large database of allelic fingerprints. Table 5 below sets forth the test results.

TABLE 5

Allelic Fingerprint Analysis				
Cultivar	M1	M2	M3	
'Ruby June'	206, 224, 229	188, 190, 216, 232	235, 241, 245, 265	
'42J4'	202, 204, 206, 229	188, 216, 232	235, 241, 245, 269	
'17J34'	204, 206, 214, 229	173, 190, 232	231, 243, 245, 265, 269	
'Camarosa'	214, 222, 224, 229	188, 190, 216, 232	247, 265	

## Performance

Performance with respect to fruit size, yield, and appearance for 'Ruby June' was assessed by making comparisons with 'Sweet Ann,' and two advanced proprietary (unpatented) selections from the breeding program: '42J4' and '33K46.' All plants for these trials were initially grown at a high elevation nursery in Macdoel, Siskiyou County, Calif. The plants of 'Ruby June' and the comparison varieties were then planted and evaluated at the Meridian ranch test plot in Monterey County, Calif. in 2012 and 2013.

The average fruit size of 30.48 grams per berry for 'Ruby June' is smaller than the very large fruit produced by 'Sweet Ann,' the other comparison cultivars, or of 'Albion' (33.0 g/berry). The fruit of 'Ruby June,' however, retains its attractive appearance, even very ripe, maintaining its desirable characteristics during shipment of the fruit to market.

The fruit of 'Ruby June' and the comparison cultivars were rated based upon commercial appearance using a scale wherein a numerical score of "5" represents the best appearance score. 'Ruby June' rated good, with a score of 3.75, as compared to: 'Sweet Ann' and 'Albion,' each of which have

a commercial appearance rating of 4.0; and, 'Aromas' which has a rating of 3.3.

Table. 6 shows the performance of 'Ruby June' compared to 'Sweet Ann,' and the proprietary unpatented varieties designated '42J4' and '17J34.'

TABLE 6

Comparison of Performance of 'Ruby June' to 'Sweet Ann' '42J4' and '17J34'			
Cultivar	Yield grams/plant	Size grams/berry	Appearance Rating 5 = Best
'Ruby June'	919	30.48	3.75
'Sweet Ann'	1,738	47.5	4.0

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TABLE 6-continued

Comparison of Performance of 'Ruby June' to 'Sweet Ann' '42J4' and '17J34'			
Cultivar	Yield grams/plant	Size grams/berry	Appearance Rating 5 = Best
'42J4'	1,057	33.25	4.5
'17J34'	1,483	39.92	3.75

I claim:

1. A new and distinct strawberry plant named 'Ruby June' as herein described and illustrated by the characterizations set forth above.

\* \* \* \* \*

**FIG. 1**

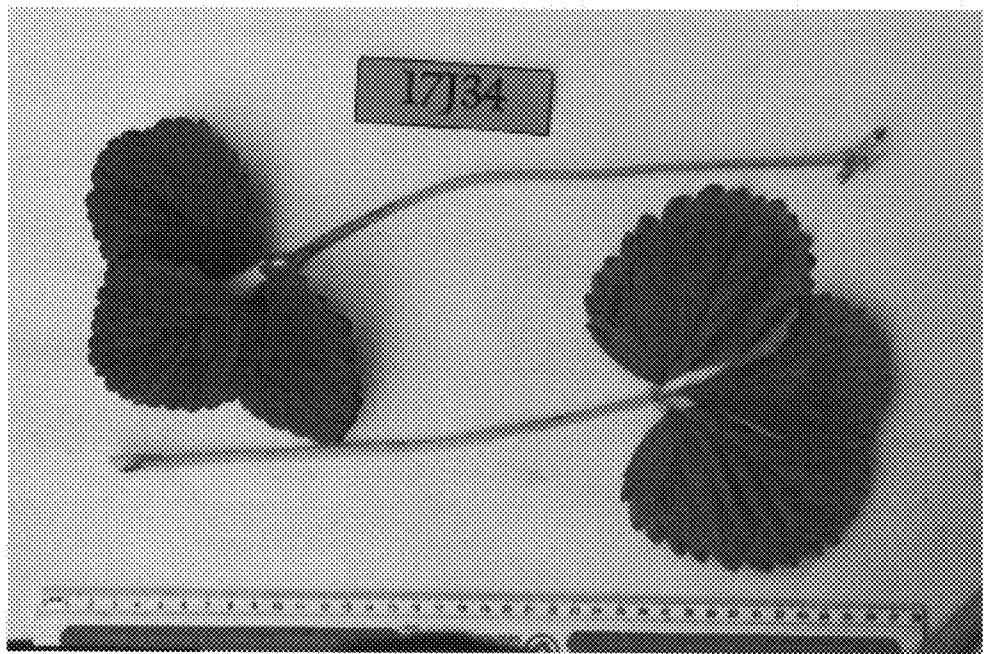


FIG. 2

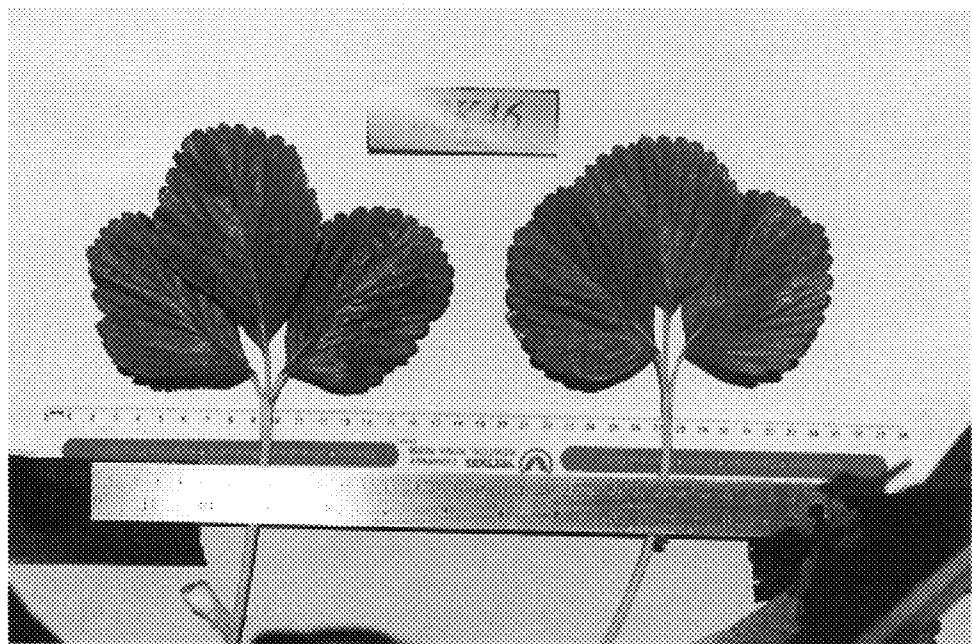


FIG. 3

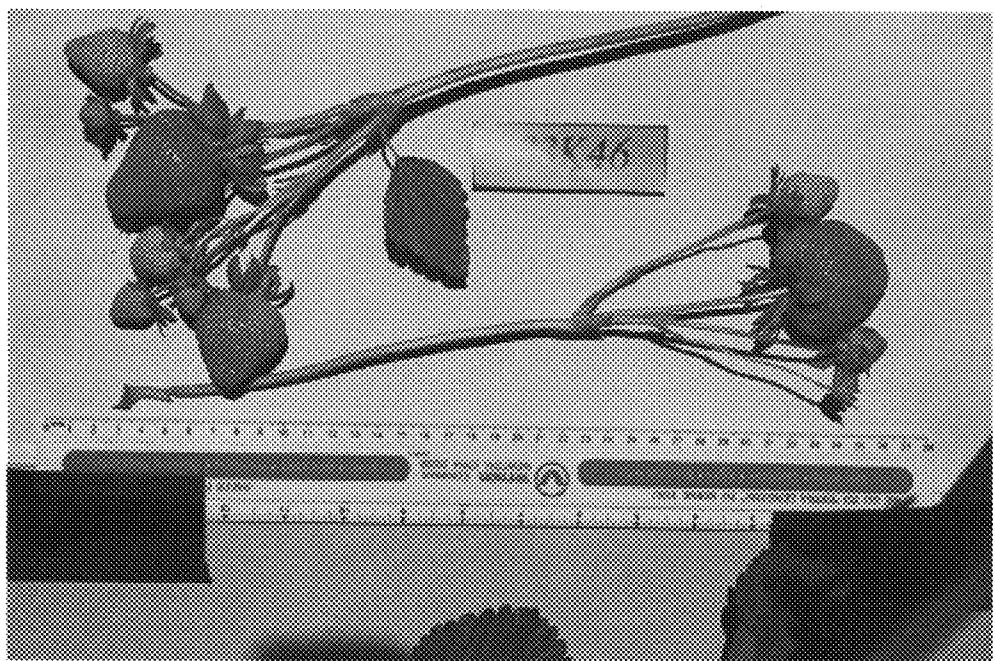


FIG. 4

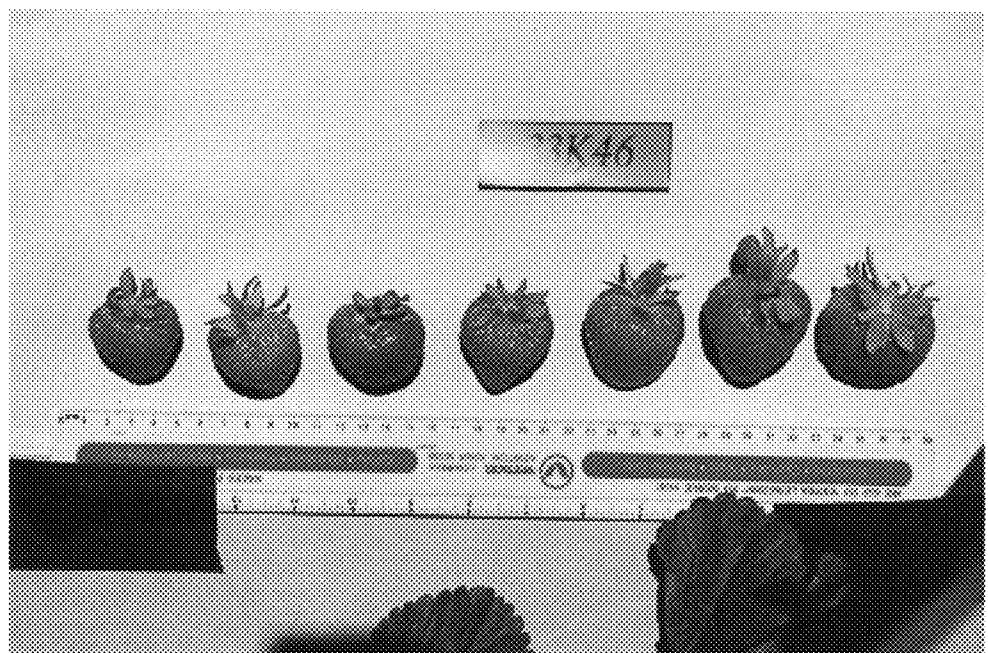


FIG. 5

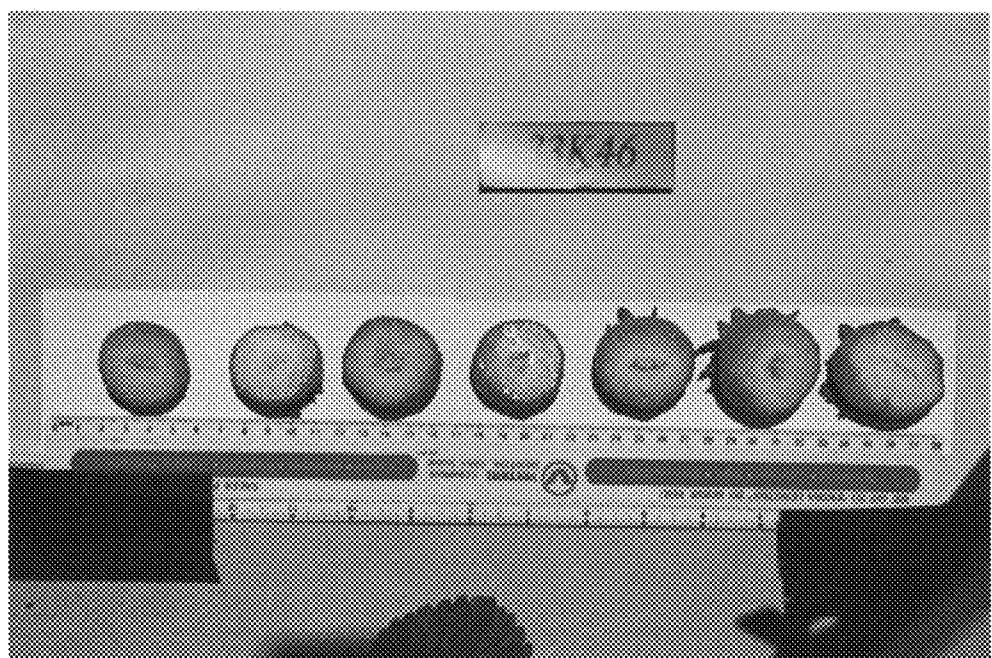


FIG. 6

