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**Finn**

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(54) **STRAWBERRY PLANT NAMED ‘SWEET SUNRISE’**

(50) Latin Name: *Fragaria*×*ananassa* Duchesne ex Rozier.  
Varietal Denomination: **Sweet Sunrise**

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(52) **U.S. Cl.**  
USPC ..... **Plt./208**

(58) **Field of Classification Search**  
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP8,346 P 8/1993 Nelson et al.  
PP8,649 P 3/1994 Sjulín et al.

PP8,659 P 3/1994 Voth et al.  
PP8,660 P 3/1994 Voth et al.  
PP8,662 P 3/1994 Bringham et al.  
PP8,663 P 3/1994 Voth et al.  
PP8,708 P 5/1994 Voth et al.  
PP8,745 P 5/1994 Sjulín et al.  
PP8,853 P 8/1994 Buszard et al.  
PP8,970 P 11/1994 Sjulín et al.  
PP9,130 P 5/1995 Sjulín et al.  
PP9,310 P 10/1995 Moore  
PP10,191 P 1/1998 Luby et al.  
PP10,402 P 5/1998 Hureau  
PP10,460 P 6/1998 Khanizadeh et al.  
PP10,960 P 6/1999 Lopez  
PP11,277 P 3/2000 Gilford et al.  
PP12,067 P2 8/2001 Moore  
PP16,228 P3 1/2006 Shaw et al.  
PP16,480 P3 4/2006 Weber et al.  
PP16,571 P3 5/2006 Weber et al.  
PP17,404 P3 2/2007 Luby et al.  
PP19,472 P3 11/2008 Shaw et al.  
PP22,589 P3 3/2012 Larson et al.  
PP22,781 P2 6/2012 Moore

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(57) **ABSTRACT**

This invention relates to new and distinct cultivar of strawberry plant named ‘Sweet Sunrise’. The new cultivar is primarily characterized by its early ripening and its medium-large, conical fruit that have outstanding processing characteristics including deep red internal and external color, sweet flavor, and very easy calyx removal, as well as vigorous, productive plants that are tolerant to biotic and abiotic stress.

**5 Drawing Sheets**

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Latin name of the genus and species of the plant claimed: ‘SWEET SUNRISE’ is a new strawberry plant that is *Fragaria*×*ananassa* Duchesne ex Rozier.

Variety denomination: The new strawberry plant claimed is of the variety denominated ‘Sweet Sunrise’, *Fragaria*×*ananassa* Duchesne ex Rozier.

#### BACKGROUND OF THE NEW PLANT

The present invention relates to a new and distinct strawberry cultivar designated ‘Sweet Sunrise’ and botanically known as *Fragaria*×*ananassa* Duchesne ex Rozier. This new strawberry cultivar was discovered in Corvallis, Oreg. in June 2000 and originated from a cross between the female parent ‘Puget Reliance’ (U.S. Plant Pat. No. 9,310) and the male parent B 754 (unpatented). The original seedling of the new cultivar was asexually propagated by rooting daughter plants from the mother plant since 2000 in Benton County, Oreg. The present invention has been found to be stable and reproduce true to type through successive asexual propagations.

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#### DESCRIPTION OF THE PHOTOGRAPHS

The accompanying color photographs show typical specimen’s 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.

FIG. 2 shows the flower morphology.

FIG. 3 shows a flower truss with fruit in a range of ripening stages.

FIG. 4 shows typical fruit after harvest for processing market.

FIG. 5 shows typical entire and sliced fruit after freezing and thawing.

#### DESCRIPTION OF THE NEW CULTIVAR

The following description of ‘Sweet Sunrise’ is based on observations taken from 2002 to 2012 growing seasons in trials in Corvallis and Aurora, Oreg. 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. ‘Sweet Sunrise’ has not been observed under all possible environmental conditions. The botanical description of ‘Sweet Sunrise’ was taken from plants one year after establishment in the field. Color terminology follows The Royal Horticultural Society Colour chart. London (R.H.S.) (5<sup>th</sup> edition, 2007).

DETAILED BOTANICAL DESCRIPTION

Table 1 shows selected characteristics of the new cultivar compared with plant characteristics of ‘Charm’, (U.S. Plant patent application Ser. No. 13/694,975). Characteristics include plant height, number of crowns per plant, plant habit, bract frequency, petiole texture, petal length and width, fruit shape, and fruit weight.

TABLE 1

Characteristic	‘Sweet Sunrise’	‘Charm’
Plant height (cm)	11.9	20.0
Number of crowns/plant	6.2	11.0
Habit	Upright, open globose	Upright globose
Bract frequency	Typically two	None
Texture petiole	Dense	Hirsute
Petal length (cm)	1.4	1.0
Petal width (cm)	1.3	1.0
Fruit shape	Conic	Conic, slight wedge
Weight fruit (g)	15.4	14.6

Table 2 shows plant characteristics of the new cultivar compared with plant characteristics of ‘Charm’ (U.S. Plant patent application Ser. No. 13/694,975). Plant characteristics include plant height, diameter, number of crowns per plant, habit, density of individual plants and vigor.

TABLE 2

Characteristic	‘Sweet Sunrise’	‘Charm’
Plant height (cm)	11.9	20.0
Plant diameter (cm)	25.0	34.7
Number of crowns/plant	6.2	11.0
Habit	Upright, open globose	Upright globose
Density of individual plant	Medium	Medium to Dense
Vigor	Medium	Strong

Table 3 shows leaf characteristics of the new cultivar compared with leaf characteristics of ‘Charm’ (U.S. Plant patent application Ser. No. 13/694,975). Leaf characteristics include leaf type, leaf shape, leaf length, leaf width, terminal leaflet length, terminal leaflet width, terminal leaflet length to width ratio, leaf margins, shape of teeth, leaf serrations per leaflet, upper and lower leaf surface color, number of leaflets, terminal leaflet apex shape, terminal leaflet base shape, glossiness upper side leaf surface, texture upper side leaf surface, texture underside leaf surface and leaf arrangement.

TABLE 3

Characteristic	‘Sweet Sunrise’	‘Charm’
Leaf type	Semi-evergreen leaves will die back to ground in severe winters	Semi-evergreen leaves will die back to ground in severe winters
Leaf shape	Ovate	Ovate
Leaf length (cm)	7.94	6.98

TABLE 3-continued

Characteristic	‘Sweet Sunrise’	‘Charm’
Leaf width (cm)	6.76	6.53
Terminal leaflet length (cm)	7.72	7.87
Terminal leaflet width (cm)	6.27	6.93
Terminal leaflet length/width ratio	1.2	1.1
Leaf margins	Single serration, coarsely serrate	Serrate
Shape of teeth	Pointed	Rounded
Leaf serrations per leaflet	21.7	20.3
Color mature leaves upper surface	Green Group N 137A	Green Group N 137B
Color mature leaves lower surface	Green Group 138C	Green Group N138C
Number of leaflets	3	3
Terminal leaflet apex shape	Obtuse	Obtuse
Terminal leaflet base shape	Cuneate	Cuneate
Glossiness upper side leaf surface	Semi-gloss	Semi-gloss
Texture upper side leaf surface	Very lightly tomentose	Very lightly tomentose
Texture underside leaf surface	Tomentulose	Tomentulose
Leaf arrangement	Compound with three leaflets	Compound with three leaflets

Table 4 shows information about the petiole, the petiolule, the bract and the stipule of the new cultivar compared to ‘Charm’ (U.S. Plant patent application Ser. No. 13/694,975). This includes petiole length, petiole diameter, petiole pubescence, petiole color, petiolule color, petiolule length, bract frequency, texture petiole, stipule length, and stipule width.

TABLE 4

Characteristic	‘Sweet Sunrise’	‘Charm’
Leaf petiole length (cm)	10.8	18.0
Petiole diameter (cm)	0.27	0.26
Petiole pubescence	Dense	Hirsute
Petiole color	144C	144C
Petiolule color	144C	144C
Petiolule length (cm)	1.17	1.11
Bract frequency	Typically two	None
Texture petiole	Dense	Hirsute
Stipule length (cm)	2.51	1.96
Stipule width (cm)	1.24	1.01

Table 5 shows stolon characteristics of the new cultivar compared to ‘Charm’ (U.S. Plant patent application Ser. No. 13/694,975). 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	‘Sweet Sunrise’	‘Charm’
Stolon number	6.0	13.5
Stolon anthocyanin	Between weak and medium	Weak
Stolon thickness	0.25	0.26
Stolon pubescence	Sparse	Sparse to medium

Table 6 shows inflorescence characteristics of the new cultivar compared to ‘Charm’ (U.S. Plant patent application Ser. No. 13/694,975). These characteristics include inflorescence position relative to foliage, flower type, flower size,



petal shape, relative petal spacing, petal apex shape, petal margin, petal base shape, petal length, petal width, petal length/width ratio, number of petals, petal color, stigma color, style color, anther color, filament color, and flower truss type.

TABLE 6

Characteristic	‘Sweet Sunrise’	‘Charm’
Inflorescence position	Between level with and above	Between level with and above
Flower type	Complete simple	Complete simple
Flower diameter (cm)	2.7	2.7
Petal shape	Orbicular	Orbicular
Petal spacing	Overlapping	Overlapping
Petal apex shape	Rounded	Rounded
Petal margin	Entire	Entire
Petal base shape	Rounded	Rounded
Petal length (cm)	1.43	1.00
Petal width (cm)	1.31	1.00
Petal length/width ratio	1.1	1.0
Petal count	5.4	5.1
Petal color	White Group NN 155B	White Group NN155C
Stigma color	Yellow Group 13A	Green-Yellow Group 1B
Style color	Yellow Group 13A	Green-Yellow Group 1B
Anther color	Yellow-Orange Group 14A	Yellow-Orange Group 14A
Filament color	Yellow-Orange Group 14A	Yellow-Orange Group 14D
Blooming habit	Cyme	Cyme

Table 7 shows fruit characteristics of the new cultivar compared to ‘Charm’ (U.S. Plant patent application Ser. No. 13/694,975). These characteristics include number of berries per truss, fruiting truss attitude, fruit length, fruit diameter, fruit length/width ratio, fruit weight, relative fruit size, predominant fruit shape, difference in shape between primary and secondary fruit, band without achenes, evenness of fruit surface, top color, non-blush side color, blush side color, internal color, achene color, achene count per fruit, insertion of calyx, pose of calyx segments, size of calyx in relation to fruit, ease of calyx removal, firmness of flesh, evenness of flesh color, distribution of flesh color, sweetness, acidity, Brix, pH, titratable acidity, texture when tasted, time of flowering, harvest maturity (50% of plants with ripe fruit), type of bearing, and yield.

TABLE 7

Characteristic	‘Sweet Sunrise’	‘Charm’
Number of berries per fruiting truss	5.2	6.8
Fruiting truss attitude	Between erect and semi-erect	Between prostrate and semi-erect
Diameter fruit (cm)	2.93	3.50
Length fruit (cm)	3.23	4.30

TABLE 7-continued

Characteristic	‘Sweet Sunrise’	‘Charm’
Ratio fruit length/width	1.1	1.2
Weight fruit (g)	15.4	14.6
Relative fruit size	Medium-large	Medium
Predominant fruit shape	Conic	Conic, slight wedge
Difference in shape between primary and secondary fruits	Slight	Slight
Band without achenes	Very narrow	Absent or very narrow
Evenness of fruit surface	Even	Very even
Color of top of fruit	Red Group 53A	Red Group 53A
Non-blush side color	Red Group 53A	Red Group 53A
Blush side color	Red Group 53A	Red Group 53A
Internal flesh color	Red Group 47A (mostly uniform)	Red Group 47A (mostly uniform, slightly open core)
Achene color	Red Group 53A	Red Group 53B
Achene count	278	216
Insertion of calyx	Level	Level
Pose of calyx segments	Spreading to reflexed	Spreading
Size of calyx in relation to fruit	Smaller	Between same size and smaller
Ease of calyx removal	Easy	Very easy
Firmness of flesh	Firm	Medium
Evenness of flesh color	Even	Even
Distribution of flesh color	Throughout	Throughout
Sweetness	Strong	Strong
Acidity	Medium	Medium
Brix (percent soluble solids)	8.27	7.65
pH	3.56	3.43
Titratable acidity (g citric acid/100 g fruit)	7.65	9.45
Texture when tasted	Fine	Fine
Time of flowering	Begins late April early May, ends early-mid June	First bloom mid-late April, ends early-mid June
Harvest maturity (50% of plant with ripe fruit)	Early June	Mid-June
Type of bearing	Short-day/June-bearing	Short-day/June-bearing
Yield (kg/hectare)	34455	38063

COMPARISON WITH PARENTAL GENOTYPES

When ‘Sweet Sunrise’ is compared to female parent ‘Puget Reliance’ (U.S. Plant Pat. No. 9,310), the fruit are deeper red, firmer, and more conically shaped and the plants less susceptible to foliar disease. When ‘Sweet Sunrise’ is compared to the male parent B 754 (unpatented) the fruit are deeper red, firmer and the plants better adapted to biotic and abiotic stress in the Pacific Northwest.

I claim:

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

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FIG. 1





FIG. 2





FIG. 3





FIG. 4





FIG. 5