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- (54) **STRAWBERRY PLANT NAMED**
‘SB_12_53-118’
- (50) Latin Name: *Fragaria ananassa*
Varietal Denomination: **SB_12_53-118**
- (71) Applicant: **STRAWBERRY SCIENCES, LLC,**
Watsonville, CA (US)
- (72) Inventors: **Kendra M. Blaker,** Archer, FL (US);
Michael D. Nelson, Watsonville, CA
(US); **Stephen M. Ackerman,** Salinas,
CA (US); **Daniel S. Nelson,**
Watsonville, CA (US)
- (73) Assignee: **STRAWBERRY SCIENCES, LLC,**
Watsonville, CA (US)
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U.S.C. 154(b) by 0 days.
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- (58) **Field of Classification Search**
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CPC **A01H 5/0893**
See application file for complete search history.

- (56) **References Cited**

U.S. PATENT DOCUMENTS

PP20,363 P2 * 9/2009 Chandler A01H 6/7409
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* cited by examiner

Primary Examiner — Kent L Bell
(74) *Attorney, Agent, or Firm* — Foley & Lardner LLP

- (57) **ABSTRACT**
This invention relates to a new and distinct variety of
strawberry plant named ‘SB_12_53-118’. This new straw-
berry plant named ‘SB_12_53-118’ is primarily adapted to
the growing conditions of West Central Florida, and is
primarily characterized by its achenes typically set level
with the surface of the fruit, good fruit flavor with firm flesh,
large fruit, early time of first flower and fruit, moderate
resistance to angular leaf spot; and vigorous plant.

4 Drawing Sheets

Latin name of the genus and species of the plant claimed:
Fragaria ananassa.
Variety denomination: ‘SB_12_53-118’.

BACKGROUND

The present invention relates to a new and distinct straw-
berry variety named ‘SB_12_53-118’. This new variety is a
result of a controlled cross made in 2012 in an ongoing
breeding program between strawberry variety designated
‘Florida Radiance’ (U.S. Plant Pat. No. 20,363) as the seed
(female) parent, and the unreleased, unpatented strawberry
breeding selection designated ‘BG-5.321’ as the pollen
(male) parent. The variety is botanically known as *Fragaria*
ananassa.

The seedling resulting from the aforementioned cross was
selected from a controlled breeding plot in Hillsborough
County, Fla. in the fall/winter of 2013-2014. After its
selection, the new variety was asexually propagated by
stolons in both Siskiyou County, Calif. and San Joaquin
County, Calif. The new variety was extensively tested over
the next several years in fruiting fields in Hillsborough
County, Fla. This propagation has demonstrated that the
combination of traits disclosed herein as characterizing the
new variety are fixed and remain true-to-type through suc-
cessive generations of asexual reproduction.

SUMMARY

‘SB_12_53-118’ is primarily adapted to the climate and
growing conditions of West Central Florida. The subtropical

climate of West Central Florida provides the day length and
moderate temperatures needed to produce an early yielding,
vigorous plant and maintain fruit quality during the fall and
winter production months.

5 The following traits have been repeatedly observed and
are determined to be unique characteristics of ‘SB_12_53-
118’, which in combination distinguish this strawberry plant
as a new and distinct variety:

- 10 1. Achenes typically are set level with the surface of the
fruit;
- 2. Good fruit flavor with firm flesh;
- 3. Large fruit;
- 4. Early time of first flower and fruit;
- 15 5. Moderate resistance to angular leaf spot; and
- 6. Vigorous plant.

‘Florida Radiance’ (U.S. Plant Pat. No. 20,363) has been
a dominant strawberry variety in Hillsborough County, Fla.
20 for more than ten years. The fruit of ‘SB_12_53-118’ are
similar in flavor and firmness to its seed parent, ‘Florida
Radiance’, but the fruits of ‘SB_12_53-118’ are greater in
size, and more uniform and conical in shape during the early
season. The achenes of ‘Florida Radiance’ are more sunken
25 than those of ‘SB_12_53-118’. In side-by-side comparisons
from the 2017-2018 season (Nov. 11, 2017 to Feb. 23, 2018)
and the 2018-2019 season (Nov. 15, 2018 to Feb. 27, 2019),
‘SB_12_53-118’ compares with ‘Florida Radiance’ (U.S.
Plant Pat. No. 20,363) in the following combination of
30 characteristics as described in Table 1.

TABLE 1

Characteristic	'SB_12_53-118'	'Florida Radiance'
		(U.S. Plant Pat. No. 20,363)
2017-2018		
November marketable yield (gm/plt)	41.7	29.7
December marketable yield (gm/plt)	59.3	23.7
January marketable yield (gm/plt)	84.5	110.4
February marketable yield (gm/plt)	254.5	203.9
Season marketable yield (gm/plt)	440.0	367.7
Season average berry size (gm)	29.9	25.5
Flavor	Good	Good
2018-2019		
November marketable yield (gm/plt)	49.4	27.0
December marketable yield (gm/plt)	34.1	23.8
January marketable yield (gm/plt)	79.4	49.7
February marketable yield (gm/plt)	237.2	394.5
Season marketable yield (gm/plt)	400.0	495.1
Season average berry size (gm)	33.2	34.5
Flavor	Good	Good

For identification, a series of molecular markers have been determined for this new variety.

'SB_12_53-118' differs from its parents, 'Florida Radiance' and 'BG-5.321' by the following combination of characteristics as described in Tables 2 and 3.

TABLE 2

Characteristic	'SB_12_53-118'	'Florida Radiance'
		(U.S. Plant Pat. No. 20,363)
Fruit: Early season berry size	Large	Medium to large
Fruit: Early marketable yield	Medium to high	Medium
Plant: vigor	High	Medium to high
Fruit: seed position	Even with surface	Moderately sunken

TABLE 3

Characteristic	'SB_12_53-118'	'BG-5.321'
Fruit: size	Large	Very large
Fruit: marketable yield	Ranges from medium to high	Medium
Fruit: Color	Medium red	Light to medium red

BRIEF DESCRIPTIONS OF THE DRAWINGS

The accompanying color photographs illustrate the overall appearance of typical specimens of the new strawberry variety 'SB_12_53-118' at various stages of development, as true as it is reasonably possible with color reproductions of this type. Color in the photographs may differ slightly from the color value cited in the botanical descriptions which accurately describe the color of 'SB_12_53-118'. The depicted plant and plant parts of the new strawberry variety 'SB_12_53-118' are approximately five months old. The photographs were taken in Hillsborough County, Fla.

FIG. 1 shows typical fruiting field characteristics of 'SB_12_53-118', taken in the month of March 2020;

FIG. 2 shows a close-up view of a typical plant of 'SB_12_53-118', taken in the month of March 2020;

FIG. 3 shows typical mature and immature field fruit of 'SB_12_53-118', taken in the month of March 2020; and

FIG. 4 shows typical internal and external mature fruit characteristics of 'SB_12_53-118', taken in the month of March 2020.

DETAILED BOTANICAL DESCRIPTION

The new variety 'SB_12_53-118' has not been observed under all possible environmental conditions. The characteristics of the new variety 'SB_12_53-118' may vary in detail, depending upon variations in environmental factors, including weather (temperature, humidity and light intensity), day length, soil type and location. In addition, the characteristics of any parental variety or comparison variety included in Tables 1, 2 and 3 of the present invention may vary in detail, depending upon variations in environmental factors, including weather (temperature, humidity and light intensity), day length, soil type and location.

The aforementioned photographs, together with the following description of the new variety 'SB_12_53-118', unless otherwise noted, are based on observations taken during the 2019-2020 growing season in Hillsborough County, Fla. These measurements and ratings were taken from plants of 'SB_12_53-118' dug from a high-elevation nursery located in Siskiyou County, Calif. during mid-September 2019 and planted approximately four to five days later in Hillsborough County, Fla. The approximate age of the observed plants is five months. Yield observations including average weight and marketable yield, along with fruit quality characteristics including soluble solids, are averaged from four years of data collected from the 2015-2016 through 2018-2019 growing seasons. Flower measurements and characteristics are from secondary flowers unless otherwise noted. Fruit characteristics and measurements are from secondary fruit, unless otherwise noted.

Where noted, color terminology follows The Royal Horticultural Society Colour Chart, London (2007).

The following characteristics describe fruit, plant, stolon, foliage, fruiting truss, flower, reproductive organs and pest and disease characteristics of the new strawberry 'SB_12_53-118'.

Fruit characteristics:

Color of mature fruit.—RHS 45A (red).

Color of internal flesh (excluding core).—RHS 44A (medium red).

Color of core.—RHS 44C (medium red).

Average length (cm).—3.8.

Average width (cm).—3.4.

Size.—Large.

Average length/width ratio.—1.13 (ranges from as long as broad to slightly longer than broad).

Average calyx diameter (cm).—4.1.

Season average weight (gm).—31.8.

Achene color, shaded side.—RHS 153C (yellow green group).

Achene color, sun-exposed side.—RHS 185A (greyed purple group).

Average achene weight (mg).—0.6.

Average achenes per berry.—274.0.

Average achene length (mm).—1.5.

Average achene width (mm).—0.9.

Season marketable yield (gm/plant).—459.4.

Predominant shape.—Cordate (cordiform).

Difference in shape between primary and secondary fruit.—Ranges from moderate to large.

Band without achenes.—Narrow.

Evenness of surface.—Ranges from slightly uneven to strongly uneven.

Evenness of color.—Even.

Glossiness.—Ranges from medium to strong.

Insertion of achenes.—Even with surface.

Position of calyx attachment.—Inserted.

Attitude of sepals.—Outward.

Size of calyx in relation to fruit diameter.—Slightly larger.

Adherence of calyx (when fully ripe).—Strong.

Firmness of flesh.—Firm.

Distribution of red color of the flesh.—Continuous from margin to center.

Hollow center expression.—Moderate.

Average cavity length (mm).—26.3.

Average cavity width (mm).—4.3.

Flavor.—Good.

Soluble solids (% Brix).—6.3.

Time of first flowering.—Early (mid-October in Hillsborough County, Fla.).

Flowering season.—October-February.

Time of first fruit.—Early (mid-November in Hillsborough County, Fla.).

Fruiting season.—November-March.

Harvest period.—Mid-November to March (in Hillsborough County, Fla.).

Post harvest fruit longevity.—9-11 days if stored according to industry standards.

Type of bearing.—Not remontant.

Plant characteristics:

Average height (cm).—22.9.

Average spread (cm).—39.6.

Size.—Medium to Large.

Habit.—Upright.

Density.—Medium.

Vigor.—Medium to High.

Stolon characteristics:

Color.—RHS 144A (yellow green group).

Anthocyanin coloration.—RHS 184A (greyed purple group).

Anthocyanin intensity.—Ranges from medium to strong.

Pubescence.—Dense.

Attitude of hairs.—Slightly outward.

Average quantity in nursery (per square foot).—4 to 5 (medium).

Average diameter at the bract (mm).—3.1 (medium).

Average length (cm).—32.5.

Terminal leaflet characteristics:

Color of upper surface.—RHS 147A (medium yellow green).

Color of underside.—RHS 147B (yellow green group).

Average length (cm).—7.8.

Average width (cm).—6.6.

Average area terminal (cm²).—51.6.

Average length/width ratio.—1.17 (longer than broad).

Shape of base.—Obtuse.

Margins (shape of teeth).—Obtuse (serrate to crenate).

Average serrations per leaf.—18.7.

Foliage characteristics:

Color of upper surface.—RHS 147A (medium yellow green).

Color of underside.—RHS 147B (yellow green group).

Number of leaflets.—3.

Leaf size.—Medium.

Average length (cm)—10.1.

Average width (cm)—13.0.

Average area foliage (cm²).—133.6.

Shape in cross section.—Slightly concave.

Texture/interveinal blistering.—Moderate.

Leaf glossiness.—Ranges from medium to strong.

Leaf variegation.—Absent.

Venation pattern.—Pinnate.

Apex descriptor.—Obtuse.

Petiole characteristics:

Petiole color.—RHS 144B (yellow green group).

Average length (cm).—15.5.

Average diameter (mm).—3.3.

Petiolule color.—RHS 144B (yellow green group).

Petiolule average length (mm).—8.2.

Average petiolule diameter (mm).—1.7.

Attitude of hairs.—Strongly outward.

Texture.—Moderate to smooth.

Frequency of bract leaflets.—Ranges from few to none (33% occurrence).

Size of bract leaflets.—Small to absent.

Pubescence.—Ranges from light to moderate.

Stipule characteristics:

Color.—RHS 145C (yellow green group).

Anthocyanin coloration.—RHS 56D (red group).

Anthocyanin intensity.—Weak.

Average length (mm).—70.25.

Average width (mm).—11.58.

Base descriptor.—Truncate.

Apex descriptor.—Obtuse.

Shape.—Triangular.

Margin.—Smooth.

Texture.—Moderate to smooth.

Fruiting truss characteristics:

Anthocyanin coloration.—RHS 177C (greyed orange group).

Anthocyanin intensity.—Very weak.

Average length at maturity (cm).—19.8.

Position relative to foliage.—Level with.

Flower quantity (average per plant season long).—20-30 (medium to high).

Average fruits per truss.—4.

Pedicel attitude of hairs.—Slightly outward.

Pubescence.—Strong.

Attitude at first pick.—Prostrate.

Average pedicel length (cm).—9.3.

Average pedicel diameter (mm).—2.2.

Pedicel texture.—Moderate to smooth.

Pedicel color.—RHS N144C (yellow-green group).

Average peduncle length (cm).—2.3.

Average peduncle diameter (mm).—3.2.

Peduncle texture.—Moderate to smooth.

Peduncle color.—RHS N144C (yellow green group).

Flower characteristics:

Flower bud shape.—Pyriform.

Average flower bud length (mm).—18.5.

Average flower bud diameter (mm).—6.7.

Flower bud color.—RHS N144A (yellow green group).

Flower depth (mm).—16.6.

Corolla (flower) average diameter (mm).—27.0 (ranges from medium to large).

Upper petal color.—RHS 155C (white group).

Lower petal color.—RHS 155C (white group).

Petal shape.—Orbicular.

Petal apex descriptor.—Obtuse/rounded.

Petal margin.—Smooth.
Petal base.—Decurrent.
Petal texture.—Smooth.
Petal average length (mm).—10.6.
Petal average width (mm).—10.1. 5
Petal average length/width ratio.—1.05 (as long as broad).
Average petals per flower.—6.1.
Upper sepal color.—RHS 144A (yellow green group).
Lower sepal color.—RHS N144A (yellow green 10 group).
Sepal shape.—Cuneate.
Sepal apex descriptor.—Obtuse.
Sepal margin.—Serrate.
Sepal texture.—Moderate to smooth. 15
Sepal average length (mm).—13.7.
Sepal average width (mm).—4.9.
Sepal average length/width ratio.—2.80.
Average sepals per flower.—12.5.
Calyx average diameter (mm).—31.2. 20
Size of calyx relative to corolla.—Larger.
Size of inner calyx relative to outer calyx.—Same.
Relative position of petals.—Overlapping.
 Reproductive organs:
Receptacle color.—RHS 148B (yellow green group). 25
Pollen color.—RHS 14A (yellow orange group).
Stamen.—Present.
Average filament length (mm).—2.6.
Filament color.—RHS 157B (green white group).

Average anther length (mm).—1.2.
Anther shape.—Ovoid.
Anther color.—RHS 21A (yellow orange color).
Average pistils per flower.—274.0.
Pistil length (mm).—0.5-1.5.
Style length (mm).—0-1.
Style color.—RHS 2B (yellow group).
Stigma diameter (mm).—<0.1.
Stigma shape.—Simple.
Ovary color.—RHS 1D (green yellow group).
Pollen amount.—Abundant.
 Disease and pest reactions:
Powdery mildew (Sphaerotheca macularis).—Moderately resistant.
Angular leaf spot (Xanthomonas fragariae).—Moderately resistant.
Botrytis fruit rot (Botrytis cinerea).—Moderately susceptible.
Fusarium wilt (Fusarium oxysporum).—Susceptible.
Anthraco nose crown rot (Colletotrichum fragariae).—Moderately susceptible.
Two-spotted spider mite (Tetranychus urticae).—Susceptible.
Winter hardiness.—Moderate.

We claim:

1. A new and distinct strawberry plant named 'SB_12_53-118', as herein described and illustrated.

* * * * *

FIG. 1



FIG. 2



FIG. 3



FIG. 4

