US00PP25865P3

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

(10) **Patent No.: US PP25,865 P3**
(45) **Date of Patent: Sep. 8, 2015**

(54) **STRAWBERRY PLANT NAMED 'BG-4.367'**

(50) Latin Name: ***Fragaria ananassa***
Varietal Denomination: **BG-4.367**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 168 days.

(21) Appl. No.: **13/987,679**

(22) Filed: **Aug. 21, 2013**

(65) **Prior Publication Data**

US 2015/0059030 P1 Feb. 26, 2015

(51) **Int. Cl.**
A01H 5/00 (2006.01)

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

(58) **Field of Classification Search**
USPC Plt./208
See application file for complete search history.

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(57) **ABSTRACT**

This invention relates to a new and distinct variety of strawberry plant named 'BG-4.367'. This new strawberry plant named 'BG-4.367' is primarily adapted to the growing conditions of the central coast of California, and is primarily characterized by its large fruit size, firm to very firm flesh, early season fruit production, strong interveinal blistering and small petiolule.

4 Drawing Sheets

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct strawberry variety named 'BG-4.367'. This new variety is a result of a controlled cross made in 2004 in an ongoing breeding program between strawberry variety designated 'BG-633' (U.S. Plant Pat. No. 13,320) and strawberry variety designated 'BG-414.065' (a non-patented selection). Due to the combining of the reciprocal seed lots, it is unknown as to which parent variety is the seed parent and which parent variety is the pollen parent. The variety is botanically known as *Fragaria ananassa.*

The seedling resulting from the aforementioned cross was selected from a controlled breeding plot in Ventura County, Calif. in the winter of 2006. 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 Ventura County, Calif. This propagation has demonstrated that the combination of traits disclosed herein as characterizing the new variety are fixed and remain true to type through successive generations of asexual reproduction.

BRIEF SUMMARY OF THE INVENTION

'BG-4.367' is primarily adapted to the climate and growing conditions of the central coast of California. The nearby Pacific Ocean provides the needed humidity and moderate temperatures to produce a strong vigorous plant and maintain fruit quality during the winter and spring production months.

The following traits have been repeatedly observed and are determined to be unique characteristics of 'BG-4.367', which in combination distinguish this strawberry plant as a new and distinct variety:

1. Large fruit size;
2. Firm to very firm flesh;
3. Early season fruit production;
4. Strong interveinal blistering; and
5. Small petiolule.

The strawberry variety that is believed to be most closely related to the new variety 'BG-4.367' is 'BG-959' (U.S. Plant Pat. No. 17,864). In side-by-side comparisons to the similar strawberry variety 'BG-959', 'BG-4.367' differs by the following combination of characteristics as described in Table 1.

TABLE 1

Characteristic	'BG-4.367'	'BG-959' (US PP17,864)
Fruit size (gm)	28.5 (large)	26.3 (medium)
Marketable yield (gm/plant)	1,193	1,034
Plant size	Medium	Ranges from medium to small
Number of stolons	Medium	Many
Terminal leaflet L/W ratio	Much longer than broad	Longer than broad
Foliage color	Medium green	Ranges from medium to dark green
Leaf shape in cross section	Strongly concave	Ranges from concave to convex
Petiole pubescence	Moderate	Heavy

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

'BG-4.367' differs from its parents, 'BG-633' and 'BG-414.065' by the following combination of characteristics as described in Table 2.

TABLE 2

Characteristic	'BG-4.367'	'BG-633' (US PP13,320)	'BG-414.065'
Marketable yield (gm/plant)	1,193	869	423
Fruit size	28.5 gm (large)	26.6 gm (medium)	22.9 (small)
Plant size	Medium	Medium	Very large

BRIEF DESCRIPTIONS OF THE PHOTOGRAPHS

The accompanying color photographs illustrate the overall appearance of typical specimens of the new strawberry variety 'BG-4.367', 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 'BG-4.367'. The depicted plant and plant parts of the new strawberry variety 'BG-4.367' are approximately six months old. The photographs were taken in Ventura County, Calif.:

FIG. **1** shows typical fruiting field characteristics of 'BG-4.367', taken in the month of April 2013;

FIG. **2** shows a close-up view of the typical leaf structure of 'BG-4.367', taken in the month of April 2013;

FIG. **3** shows typical mature and immature field fruit of 'BG-4.367', taken in the month of April 2013; and

FIG. **4** shows typical internal and external mature fruit characteristics of 'BG-4.367', taken in the month of April 2013.

DETAILED BOTANICAL DESCRIPTION

The new variety 'BG-4.367' has not been observed under all possible environmental conditions. The characteristics of the new variety 'BG-4.367' 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 1-9 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 'BG-4.367', unless otherwise noted, are based on observations taken during the 2013 growing season in Ventura County, Calif. These measurements and ratings were taken from plants of 'BG-4.367' dug from a high-elevation nursery located in Siskiyou County, Calif. during early October 2012 and planted approximately four to five days later in Ventura County, Calif. The approximate age of the observed plants is six months. Yield observations and fruit quality characteristics are averaged from six years of data collected from the 2008 through 2013 growing seasons. Flower measurements and characteristics are from secondary flowers unless otherwise noted. Fruit characteristics and measurements are from secondary fruit unless otherwise noted.

Color terminology where noted follows The Royal Horticultural Society Colour Chart, London (2007).

The following tables 3 through 9 describe fruit, plant, stolon, foliage, fruiting truss, flower, and pest and disease characteristics of the new strawberry 'BG-4.367'.

TABLE 3

FRUIT CHARACTERISTICS

Characteristic	'BG-4.367'
Color of mature fruit	RHS 46B, red
Color of internal flesh	RHS 45C, medium red
Color of core	RHS 39B, medium red
Fruit length (cm)	4.6
Fruit width (cm)	4.0
Fruit size	Large
Fruit length/width ratio	1.16, slightly longer than broad
Calyx diameter (cm)	5.3
Average fruit weight (gm)	28.5
Achene color, shaded side	RHS 153B, yellow green group
Achene color, sun-exposed side	RHS 185A, greyed purple group
Achene weight (mg)	0.55
Average achenes per berry	353
Marketable fruit yield (gm/plant)	1,193
Predominant fruit shape	Conical
Difference in shapes between primary and secondary fruit	Moderate
Band without achenes	Absent or very narrow
Unevenness of fruit surface	Ranges from weak to medium
Evenness of fruit color	Even
Fruit glossiness	Medium
Insertion of achenes	Level with surface
Insertion of calyx	In basin
Attitude of calyx	Spreading
Size of calyx in relation to fruit diameter	Slightly larger
Adherence of calyx	Strong
Firmness of fruit flesh	Ranges from firm to very firm
Distribution of red color of the flesh	Marginal and central
Hollow center expression	Ranges from moderate to strong
Fruit flavor	Ranges from good to fair
Soluble solids (% brix)	7.6
Time of first flowering	Early
Time of first harvesting	Early
Harvest period	January to May
Harvest maturity	Early season
Type of bearing	Not remontant (short day)

TABLE 4

PLANT CHARACTERISTICS

Characteristic	'BG-4.367'
Plant height (cm)	21.6
Plant spread (cm)	30.3
Plant size	Medium
Plant habit	Upright
Plant density	Ranges from sparse to medium
Plant vigor	Medium

TABLE 5

STOLON CHARACTERISTICS

Characteristic	'BG-4.367'
Stolon color	RHS 146C, yellow green group
Stolon anthocyanin coloration	RHS 182B, greyed red group
Stolon anthocyanin intensity	Weak
Average stolon quantity	Medium
Stolon diameter at bract (mm)	3.7, thick
Stolon pubescence	Medium
Attitude of hairs	Upward

TABLE 6

FOLIAGE CHARACTERISTICS

Characteristic	'BG-4.367'
Foliage:	
Color of upper surface	RHS 137A, medium green
Color of underside	RHS 147C, yellow green group
Number of leaflets	3-4
Shape in cross section	Strongly to slightly concave
Interveinal blistering	Strong
Leaf glossiness	Ranges from medium to strong
Leaf variegation	Absent
Terminal Leaflet:	
Length (cm)	6.9
Width (cm)	5.7
Leaf size	Ranges from medium to small
Length/width ratio	1.22, much longer than broad
Shape of base	Obtuse
Shape of teeth	Rounded
Serrations per leaf	21.9
Petiole:	
Petiole color	RHS 145A, yellow green group
Petiole length (cm)	12.4
Petiole diameter (mm)	3.9
Petiolule color	RHS 145A, yellow green group
Petiolule length (mm)	5.4
Attitude of hairs	Slightly outward
Petiole pubescence	Moderate
Stipule:	
Stipule color	RHS 146C, yellow green group
Stipule anthocyanin coloration	RHS 58A, red purple group
Stipule anthocyanin intensity	Weak
Stipule length (mm)	20.1
Stipule width (mm)	16.1

TABLE 7

FRUITING TRUSS CHARACTERISTICS

Characteristic	'BG-4.367'
Anthocyanin coloration	RHS 181C, greyed red group
Anthocyanin intensity	Ranges from weak to medium
Length at maturity (cm)	25.7
Position relative to foliage	Ranges from level with to above
Number of flowers	Medium
Pedicel attitude of hairs	Upward

TABLE 7-continued

FRUITING TRUSS CHARACTERISTICS

Characteristic	'BG-4.367'
Pubescence	Ranges from weak to medium
Attitude at first pick	Prostrate

TABLE 8

FLOWER CHARACTERISTICS

Characteristic	'BG-4.367'
Petal color	RHS NN155C, white group
Sepal color	RHS 137A, green group
Receptacle color	RHS 147C, yellow green group
Anther color	RHS 14A, yellow orange group
Corolla diameter (mm)	30.5, large
Calyx diameter (mm)	33.6
Petal length (mm)	11.7
Petal width (mm)	11.9
Petal length/width ratio	0.99, as long as broad
Petals per flower	5.7
Sepal length (mm)	13.3
Sepal width (mm)	6.1
Sepal length/width ratio	2.19
Sepals per flower	11.3
Size of calyx relative to corolla	Larger
Relative position of petals	Overlapping
Stamen	Present
Size of inner calyx relative to outer calyx	Smaller

TABLE 9

PEST AND DISEASE REACTIONS

Characteristic	'BG-4.367'
Powdery mildew	Moderately susceptible
Verticillium wilt	Moderately susceptible
Angular leaf spot	Susceptible
Botrytis fruit rot	Moderately susceptible
Two-spotted spider mite	Moderately susceptible

We claim:

1. A new and distinct strawberry plant named 'BG-4.367', as herein described and illustrated by the characteristics set forth above.

* * * * *

FIG. 1

FIG. 2

FIG. 3

FIG. 4