



US00PP30774P3

**(12) United States Plant Patent
Adams****(10) Patent No.: US PP30,774 P3****(45) Date of Patent: Aug. 6, 2019****(54) RASPBERRY PLANT NAMED ‘PS-08.019-25’****(50) Latin Name: *Rubus idaeus*
Varietal Denomination: PS-08.019-25****(71) Applicant: Plant Sciences, Inc., Watsonville, CA
(US)****(72) Inventor: Scott W. Adams, Watsonville, CA (US)****(73) Assignee: PLANT SCIENCES, 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.: 15/932,043****(22) Filed: Jan. 29, 2018****(65) Prior Publication Data
US 2018/0220567 P1 Aug. 2, 2018****Related U.S. Application Data****(60) Provisional application No. 62/453,356, filed on Feb. 1, 2017.****(51) Int. Cl.**
A01H 5/08 (2018.01)
A01H 6/74 (2018.01)**(52) U.S. Cl.**
USPC **Plt./204**
CPC *A01H 6/7499* (2018.05)**(58) Field of Classification Search**
USPC Plt./204
See application file for complete search history.*Primary Examiner* — Anne Marie Grunberg**(74) Attorney, Agent, or Firm** — Foley & Lardner LLP**(57) ABSTRACT**

This invention relates to a new and distinct everbearing variety of raspberry plant named ‘PS-08.019-25’. The new variety is primarily adapted to the growing conditions of the central coast of California and is characterized by the following: mid-season primocane production with medium sized fruit of light-red coloration. Fruit is of consistent conic shape, releases very easily from receptacle and is of fair flavor. Foliage is slightly concave to strongly convex, medium green; possessing strong rugosity and always 3 foliate. Primocanes have an absent or very weak waxy coat, green spines, and sparse thorn density and have absent to very weak anthocyanin coloration.

4 Drawing Sheets**1**Latin name of the genus and species of the plant claimed:
Rubus idaeus.

Variety denomination: ‘PS-08.019-25’.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct fall bearing raspberry variety designated as ‘PS-08.019-25’. This new variety is a result of a controlled cross made in 2008 in Watsonville, Calif. between raspberry variety ‘PS-1764’ (patented, U.S. Plant Pat. No. 15,439) as the female parent and raspberry variety ‘04.3890’ (unpatented) as the male parent in an ongoing breeding program. The variety is botanically known as *Rubus idaeus*.

The seedling resulting from the aforementioned cross was asexually propagated by dormant canes in Santa Cruz County, Calif. and was subsequently selected by the inventor from a controlled breeding plot in Watsonville, Calif. in 2010. After its selection, the new variety was further asexually propagated by dormant canes, roots and non-dormant root shoot cuttings in Santa Cruz County, Calif., San Joaquin County, Calif. and Siskiyou County, Calif. The new variety was then extensively tested over the next several years in fruiting fields in Santa Cruz 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

‘PS-08.019-25’ is primarily adapted to the climate and growing conditions of the central coast of California. This region provides the necessary year-round temperatures

2

required for it to produce and maintain a strong vigorous plant and to remain in fruit production from July through December on primocanes and in the ensuing year from May through July on floricanes. The following traits have been repeatedly observed and are determined to be unique characteristics of ‘PS-08.019-25’, which in combination distinguish this raspberry plant as a new and distinct variety:

1. Green spines
2. High fruit yield
3. Light to medium red fruit color
4. Absent to very weak primocane glaucosity
5. Fair flavor

The raspberry variety that is believed to be most closely related to the new raspberry variety ‘PS-08.019-25’ is the raspberry variety ‘GRANDEUR’ (patented, U.S. Plant Pat. No. 20,459). In comparison to the similar raspberry variety ‘GRANDEUR’, ‘PS-08.019-25’ differs by the following combination of characteristics described in Table 1:

TABLE 1

Characteristic	‘PS-08.019-25’	‘GRANDEUR’ (U.S. PP 20,459)
Primocane anthocyanin intensity	Absent to very weak	Weak
Primocane fruit weight (g)	4.5	3.8
Leaf shape (cross section)	Slightly concave to strongly convex	Flat to slightly convex
Thorn density per cm at central 1/3	1.81	3.38
Relative number of pedicel thorns	Sparse	Medium
9.9	9.9	16.2
Few	Few	Medium
Soluble solids (% Brix)	8.9	10.5
Flavor	Fair	Good

'PS-08.019-25' differs from its parents, 'PS-1764' and '04.3890', by the following combination of characteristics described in Table 2:

TABLE 2

Characteristic	'PS-08.019-25'	'PS-1764' (U.S. PP 15,439)	'04.3890'
Productivity	High	High	Medium
Glossiness (fruit)	Medium	High	High
Firmness (fruit)	Medium to high	Medium	Medium to low
Adherence to receptacle	Very weak	Weak	Medium
Primocane time of fruiting	Medium	Medium	Medium
Fruit size	Medium	Medium	Large
Flavor	Fair	Excellent	Good
Yellow rust (<i>Phragmidium rubi-idaei</i>)	Moderately resistant	Very susceptible	Susceptible

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

BRIEF DESCRIPTIONS OF THE DRAWINGS

The accompanying color photographs illustrate the overall appearance of typical specimens of the new raspberry variety, 'PS-08.019-25' at various stages of development as true as reasonably possible with color reproductions of this type. Color in the photographs may differ slightly from the color value cited in the detailed botanical description which accurately describes the color of 'PS-08.019-25'. The depicted plant and plant parts of the new raspberry variety 'PS-08.019-25' were taken in Watsonville, Calif. and are approximately 2 to 16 months old:

FIG. 1 shows typical primocane foliage and fruit color; foliate and rugosity characteristics of 'PS-08.019-25' taken in the month of May 2015;

FIG. 2 shows typical gloss, coloration, and drupelet formation of florican fruit of 'PS-08.019-25' taken in the month of May 2015;

FIG. 3 shows typical harvested fruit of 'PS-08.019-25' taken in the month of July 2015;

FIG. 4 shows typical dormant cane color characteristics of 'PS-08.019-25' taken in the month of January 2013.

DETAILED BOTANICAL DESCRIPTION

'PS-08.019-25' has not been observed under all possible environmental conditions. The characteristics of the new variety 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 raspberry variety 'PS-08.019-25', unless otherwise noted, are based upon observations taken during the 2016-2017 growing season in Watsonville, Calif. Primocane measurements and ratings were taken from plants of 'PS-08.019-25' dug from a nursery located in Siskiyou County, Calif. during the middle of October 2015 and planted approximately 3 to 4 weeks later in Watsonville, Calif. The approximate age of the observed primocane plants is 7 to 8 months. Florican measurements and ratings were taken from the same planting of 'PS-08.019-25' at an approximate age of 16 to 18 months. Yield observations and fruit quality characteristics are averaged from three years of data collected from the 2013 through 2016 production seasons. Flower measurements and characteristics are from

secondary flowers unless otherwise noted. Fruit characteristics and measurements are from secondary fruit unless otherwise noted. Foliage characteristics and measurements are from 3-foliolate foliage unless otherwise noted.

Color terminology where noted follows The R.H.S. Colour Chart Fifth Edition, Royal Horticultural Society, London, United Kingdom (1966).

The following Tables 3-7 describe fruit, plant, foliage, flower and pest/disease characteristics of the new raspberry 'PS-08.019-25' in comparison to the similar raspberry variety 'GRANDEUR' (patented, U.S. Plant Pat. No. 20,459).

TABLE 3

FRUIT CHARACTERISTICS		
Characteristic	'PS-08.019-25'	'GRANDEUR' (U.S. PP 20,459)
Color mature fruit	RHS 42A Medium red	RHS 42A Medium red
Color achenes	RHS 159A Orange-white group	RHS 159A Orange-white group
Fruit length (mm)	22.71	22.91
Fruit width (mm)	20.94	20.12
Length/Width ratio	1.08	1.14
Seed weight (mg)	1.71	1.75
Drupelets per berry	99	93
Weight of single drupe (g/drupe)	0.051	0.043
Relative size of drupes	Medium	Medium
Fruit size	Medium	Medium
Predominant shape	Conical	Conical
Evenness of color	Even	Even
Glossiness	Medium	Medium
Adherence of receptacle	Very weak	Very weak
Firmness of flesh	Very Firm	Very firm
Firmness of skin	Firm	Very firm
Soluble solids (% Brix)	8.9	10.5
Flavor	Fair	Good

TABLE 4

PLANT CHARACTERISTICS		
Characteristic	'PS-08.019-25'	'GRANDEUR' (U.S. PP 20,459)
General:		
Habit	Upright	Upright
Size	Medium	Medium
Productivity	High	High
Self-fruitfulness	Yes	Yes
Type of bearing	Everbearing	Everbearing
Primocane:		
Color (true)	RHS 145A Yellow-green group	RHS 145B Yellow-green group
Length (cm)	144.8	143.6
Basal diameter (mm)	11.34	21.80
Diameter central 1/3 (mm)	8.91	12.55
Lateral length at central 1/3 (cm)	40.9	43.6
No. fruiting laterals per cane	14.7	17.4
Internode length at central 1/3 (mm)	42.98	48.84
Anthocyanin coloration	RHS 59B Red-purple group	RHS 59B Red-purple group
Anthocyanin intensity	Absent to very weak	Weak
Pubescence	Absent	Absent
Length of vegetative bud (mm)	3.93	11.01
Strength of waxy coating (glaucosity)	Absent to very weak	Absent to very weak

TABLE 4-continued

PLANT CHARACTERISTICS		
Characteristic	'PS-08.019-25'	'GRANDEUR' (U.S. PP 20,459)
Time of flowering	Medium	Medium
Time of fruiting	Medium	Medium
Length of fruiting season	Long	Long
% of total yield	57%	50%
Flowering period	Late June to Late November	Late June to Late November
Harvest period	Late July to Mid December	Late July to Mid December
Primocane fruit weight (g)	4.5	3.8
Primocane yield (g/plant)	3,098	2,662
Young Shoots:		
Number (per meter)	15-20	15-20
Anthocyanin presence	Medium	Medium
Anthocyanin coloration	Present	Present
Anthocyanin intensity	RHS 187B Red-purple group	RHS 179A Greyed-red group
Thorns:	Medium	Medium
Thorn coloration (tip)	RHS 180C Greyed-red group	RHS 180C Greyed-red group
Thorn coloration (base)	RHS 145B Yellow-green group	RHS 145B Yellow-green group
Thorn length at central 1/3 (mm)	0.67	0.76
Thorn base at central 1/3 (mm)	0.52	1.53
Thorn presence	Present	Present
Thorn density per cm at central 1/3	1.81	3.38
Thorn texture	Sparse	Medium
Attitude of the tip	Rigid	Rigid
Florican:	Horizontal	Horizontal
Color (true)	RHS 164A Greyed-orange group	RHS 164A Greyed-orange group
Length (cm)	111.5	119.8
Fruiting lateral attitude	Erect	Erect
Time bud burst	Medium	Medium
Time of flowering	Medium	Medium
Time of fruiting	Medium	Medium
Length of fruiting season	Medium to long	Medium to long
% of total yield	43%	50%
Flowering period	Late April to Late June	Late April to Late June
Harvest period	Late May to Late July	Late May to Late July
Florican fruit weight (g)	4.3	3.7
Florican yield (g/plant)	2,332	2,680

TABLE 5

FOLIAGE CHARACTERISTICS		
Characteristic	'PS-08.019-25' (3 Foliolate)	'GRANDEUR' (U.S. PP 20,459) (3 Foliolate)
General:		
Color of upper surface	RHS N137A Green group	RHS N137A Green group
Color of lower surface	RHS 190B Greyed-green group	RHS 190B Greyed-green group
Shape in cross section	Slightly concave to strongly convex	Flat to slightly convex
Arrangement	Compound	Compound
Relief between veins (rugosity)	Strong	Strong
Glossiness	Weak	Weak
Number of leaflets/leaf	Always 3	Always 3

TABLE 5-continued

FOLIAGE CHARACTERISTICS		
Characteristic	'PS-08.019-25' (3 Foliolate)	'GRANDEUR' (U.S. PP 20,459) (3 Foliolate)
Terminal Leaflet:		
Length (mm)	124.7	127.5
Width (mm)	86.6	91.6
Length/width ratio	1.4	1.4
Size	Longer than broad	Longer than broad
Shape	Medium	Medium to large
Shape of base	Cordate	Cordate
Shape of tip	Cordate	Cordate
Margins	Acuminate	Acuminate
Margins	Biserrate	Biserrate
Lateral Leaflet:		
Length (mm)	95.4	105.5
Width (mm)	58.7	65.1
Length/width ratio	1.6	1.6
Size	Longer than broad	Longer than broad
Rachis length (mm)	28.6	36.2
Orientation	Opposite	Opposite
Arrangement	Compound	Compound
Shape	Ovate	Ovate
Overlapping	Free	Touching
Shape of the base	Rounded	Oblique rounded
Shape of the tip	Acuminate	Acuminate
Margins	Biserrate	Biserrate
Petiole:		
Length (mm)	48.47	59.00
Width (mm)	2.49	3.99
Thorn presence	Yes	Yes
Thorn orientation	Erect	Erect
Anthocyanin coloration of upper surface	RHS 184C Greyed-purple group	RHS 184C Greyed-purple group
Anthocyanin intensity of upper surface	Absent to very weak	Weak
Stipule length (mm)	6.64	10.23
Stipule orientation	Erect	Erect to horizontal

TABLE 6

FLOWER CHARACTERISTICS		
Characteristic	'PS-08.019-25'	'GRANDEUR' (U.S. PP 20,459)
Petal color	155C White group	155C White group
Flower diameter (mm)	22.03	22.55
Petal Length (mm)	7.36	6.42
Petal width (mm)	3.41	3.11
Petal length/width ratio	2.16	2.06
Size	Much longer than broad	Much longer than broad
No. petals/flower	5.1	5.2
No. sepals/flower	5.1	5.2
Relative number of pedicel thorns	9.9	16.2
Peduncle anthocyanin presence	Few	Medium
Peduncle anthocyanin coloration	Absent	Present
Peduncle anthocyanin intensity	n/a	RHS 184A Greyed-purple group
Peduncle anthocyanin intensity	Absent	Medium

TABLE 7

PEST AND DISEASE REACTIONS		
Characteristic	'PS-08.019-25'	'GRANDEUR' (U.S. PP 20,459)
Spotted wing drosophila (<i>Drosophila suzukii</i>)	Susceptible	Susceptible
Two-spotted spider mite (<i>Tetranychus urticae</i>)	Very susceptible	Susceptible
Grey fruit mold (<i>Botrytis cinerea</i>)	Susceptible	Susceptible
Powdery mildew (<i>Podosphaera aphanis</i> var. <i>aphanis</i>)	Moderately susceptible	Moderately susceptible

TABLE 7-continued

PEST AND DISEASE REACTIONS		
Characteristic	'PS-08.019-25'	'GRANDEUR' (U.S. PP 20,459)
Yellow rust (<i>Phragmidium rubi-idaei</i>)	Moderately resistant	Moderately susceptible

5

10 I claim:
1. A new and distinct variety of raspberry plant named 'PS-08.019-25', as herein described and illustrated by the characteristics set forth above.

* * * * *

FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4

