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Adams

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(54) **RASPBERRY PLANT NAMED ‘VISION’**

(50) Latin Name: *Rubus idaeus*
Varietal Denomination: **VISION**

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(57) **ABSTRACT**

This invention relates to a new and distinct everbearing variety of raspberry plant named ‘VISION’. The new variety is primarily adapted to the growing conditions of the central coast of California and is characterized by the following: early to mid-season primocane production with medium to large sized fruit of light-red coloration. Fruit is of consistent broad conic shape, releases easily from receptacle, is of low gloss and fair flavor. Foliage is slightly concave; medium green, glossy and foliage is equal 3 and 5 foliates. Primocanes have an absent or very weak waxy coat, medium thorn density, purple spines and have very weak anthocyanin coloration.

4 Drawing Sheets

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Latin name of the genus and species of the plant claimed: *Rubus idaeus*.
Variety denomination: ‘VISION’.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct fall bearing raspberry variety designated as ‘VISION’. This new variety is a result of a controlled cross made in 2009 in Watsonville, Calif. between raspberry variety ‘GRANDEUR’ (patented, U.S. Plant Pat. No. 20,459) as the female parent and raspberry variety ‘04.3814’ (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 2011. 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

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

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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 ‘VISION’, which in combination distinguish this raspberry plant as a new and distinct variety:

1. Dark purple spines
2. Broad conic fruit shape
3. Light red fruit color
4. Absent to very weak primocane glaucosity
5. Glossy foliage

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

TABLE 1

Characteristic	‘VISION’	‘GRANDEUR’ (U.S. Plant Pat. No. 20,459)
Glossiness (foliage)	Strong	Weak
Predominate number of leaflets	Equal 3-5	Always 3
Leaf shape (cross section)	Slightly concave	Flat to slightly convex
Thorn coloration (tip)	RHS N186B	RHS 180C
Thorn coloration (base)	Greyed-purple group	Greyed-red group
	RHS N186C	RHS 145B
Color mature fruit	Greyed-purple group	Yellow-green group
	RHS 43A	RHS 42A
	Light red	Medium red

TABLE 1-continued

Characteristic	'VISION'	'GRANDEUR' (U.S. Plant Pat. No. 20,459)
Soluble solids (% Brix)	8.8	10.5
Flavor	Fair	Good

'VISION' differs from its parents, 'GRANDEUR' and '04.3814', by the following combination of characteristics described in Table 2:

TABLE 2

Characteristic	'VISION'	'GRANDEUR' (U.S. Plant Pat. No. 15,439)	'04.3814'
Productivity	High	High	Medium
Glossiness (fruit)	Weak	High	Medium
Firmness (fruit)	Medium to high	High	Low
Adherence of receptacle	Very weak	Very weak	Medium
Primocane time of fruiting	Medium	Medium	Medium
Fruit size	Medium to large	Medium	Large
Flavor	Fair	Good	Excellent

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, 'VISION' 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 'VISION'. The depicted plant and plant parts of the new raspberry variety 'VISION' 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 'VISION' taken in the month of September 2012;

FIG. 2 shows typical gloss, coloration, and drupelet formation of primocane fruit of 'VISION' taken in the month of September 2017;

FIG. 3 shows typical harvested fruit of 'VISION' taken in the month of September 2017;

FIG. 4 shows typical dormant cane color characteristics of 'VISION' taken in the month of January 2013.

DETAILED BOTANICAL DESCRIPTION

'VISION' 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 'VISION', 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 'VISION' 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. Floricane measurements and ratings were taken from the same planting of 'VISION' 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 'VISION' in comparison to the similar raspberry varieties 'GRANDEUR' (patented, U.S. Plant Pat. No. 20,459) and 'BOUNTIFUL' (patented, U.S. Plant Pat. No. 27,582).

TABLE 3

FRUIT CHARACTERISTICS			
Characteristic	'VISION'	'GRANDEUR' (U.S. Plant Pat. No. 20,459)	'BOUNTIFUL' (U.S. Plant Pat. No. 27,582)
Color mature fruit	RHS 43A Light red	RHS 42A Medium red	RHS 34A Light to medium red
Color achenes	RHS 159A Orange-white group	RHS 159A Orange-white group	RHS 159A Orange-white group
Fruit length (mm)	22.89	22.91	23.30
Fruit width (mm)	21.67	20.12	21.87
Length/Width ratio	1.06	1.14	1.06
Seed weight (mg)	1.59	1.75	1.66
Drupelets per berry	105	93	82
Weight of single drupe (g/drupe)	0.059	0.043	0.058
Relative size of drupes	Large	Medium	Medium
Fruit size	Medium to large	Medium	Medium
Predominant shape	Broad conical	Conical	Conical
Evenness of color	Even	Even	Even
Glossiness	Weak	Medium	Medium
Adherence of receptacle	Very weak	Weak	Very weak
Firmness of flesh	Firm	Very firm	Firm
Firmness of skin	Medium	Very firm	Medium
Soluble solids (% Brix)	8.8	10.5	9.8
Flavor	Fair	Good	Good

TABLE 4

PLANT CHARACTERISTICS			
Characteristic	'VISION'	'GRAN-DEUR' (U.S. Plant Pat. No. 20,459)	'BOUN-TIFUL' (U.S. Plant Pat. No. 27,582)
General:			
Habit	Upright	Upright	Semi-Upright
Size	Medium	Medium	Medium

TABLE 4-continued

PLANT CHARACTERISTICS			
Characteristic	'VISION'	'GRAN-DEUR' (U.S. Plant Pat. No. 20,459)	'BOUN-TIFUL' (U.S. Plant Pat. No. 27,582)
Productivity	High	High	High
Self-fruitfulness	Yes	Yes	Yes
Type of bearing	Everbearing	Everbearing	Everbearing
Primocane:			
Color (true)	RHS 145A Yellow-green group	RHS 145B Yellow-green group	RHS 145B Yellow-green group
Length (cm)	149.9	143.6	198.6
Basal diameter (mm)	13.55	21.80	16.98
Diameter central 1/3 (mm)	10.42	12.55	10.31
Lateral length at central 1/3 (cm)	33.5	43.6	35.2
No. fruiting laterals per cane	11.6	17.4	15.2
Internode length at central 1/3 (mm)	39.68	48.84	50.34
Anthocyanin coloration	RHS 59B Red-purple group	RHS 59B Red-purple group	n/a
Anthocyanin intensity	Absent to very weak	Weak	Absent
Pubescence	Absent	Absent	Absent
Length of vegetative bud (mm)	6.38	11.01	6.82
Strength of waxy coat (glaucosity)	Absent to very weak	Absent to very weak	Absent to very weak
Time of flowering	Medium	Medium	Late
Time of fruiting	Early to medium	Medium	Late
Length of fruiting season	Long	Long	Long
% of total yield	52%	50%	47%
Flowering period	Late June to Late November	Late June to Late November	Late June to Late November
Harvest period	Late July to Mid December	Late July to Mid December	Late July to Late December
Primocane fruit weight (g)	5.3	3.8	4.8
Primocane yield (g/plant)	2,595	2,662	3,495
Young Shoots:			
Number (per meter)	15-20	15-20	25-30
Anthocyanin presence	Medium	Medium	Medium
Anthocyanin coloration	Present	Present	Present
Anthocyanin intensity	RHS 179A Red-purple group	RHS 179A Greyed-red group	RHS 179B Red-purple group
Thorns:	Weak to medium	Medium	Absent to very weak
Thorn coloration (tip)	RHS N186B Greyed-purple group	RHS 180C Greyed-red group	RHS 179C Greyed-red group
Thorn coloration (base)	RHS N186C Greyed-purple group	RHS 145B Yellow-green group	RHS 145B Yellow-green group
Thorn length at central 1/3 (mm)	0.91	0.76	1.92
Thorn base at central 1/3 (mm)	0.73	1.53	1.34
Thorn presence	Present	Present	Present
Thorn density per cm at central 1/3	6.71	3.38	7.36
	Dense	Medium	Dense

TABLE 4-continued

PLANT CHARACTERISTICS			
Characteristic	'VISION'	'GRAN-DEUR' (U.S. Plant Pat. No. 20,459)	'BOUN-TIFUL' (U.S. Plant Pat. No. 27,582)
Thorn texture	Rigid	Rigid	Rigid
Attitude of the tip	Horizontal	Horizontal	Horizontal
Floricanes:			
Color (true)	RHS 164A Greyed-orange group	RHS 164A Greyed-orange group	RHS 165B Greyed-orange group
Length (cm)	109.8	119.8	139.7
Fruiting lateral attitude	Erect	Erect	Horizontal to drooping
Time bud burst	Medium	Medium	Medium
Time of flowering	Medium	Medium	Medium
Time of fruiting	Medium	Medium	Medium
Length of fruiting season	Medium to long	Medium to long	Medium to long
% of total yield	48%	50%	53%
Flowering period	Late April to Late June	Late April to Late June	Late April to Late June
Harvest period	Late May to Late July	Late May to Late July	Late May to Late July
Floricanes fruit weight (g)	5.0	3.7	4.6
Floricanes yield (g/plant)	2,396	2,680	4,010
TABLE 5			
FOLIAGE CHARACTERISTICS			
Characteristic	'VISION' (3 Foliate)	'GRAN-DEUR' (U.S. Plant Pat. No. 20,459) (3 Foliate)	'BOUN-TIFUL' (U.S. Plant Pat. No. 27,582) (3 Foliate)
General:			
Color of upper surface	RHS 139A Green group	RHS N137A Green group	RHS N137B Green group
Color of lower surface	RHS 190B Greyed-green group	RHS 190B Greyed-green group	RHS 190B Greyed-green group
Shape in cross section	Slightly concave	Flat to slightly convex	Flat to slightly concave
Arrangement	Compound	Compound	Compound
Relief between veins (rugosity)	Medium	Strong	Weak
Glossiness	Strong	Weak	Weak
Number of leaflets/leaf	Equal 3-5	Always 3	Equal 3-5
Terminal Leaflet:			
Length (mm)	130.2	127.5	133.3
Width (mm)	102.7	91.6	83.6
Length/Width Ratio	1.3	1.4	1.6
Size	Longer than broad	Longer than broad	Longer than broad
Shape	Medium	Medium	Medium
Shape of base	Cordate	Cordate	Cordate
Shape of tip	Cordate	Cordate	Rounded
Margins	Acuminate	Acuminate	Acuminate
Lateral Leaflet:			
Length (mm)	105.3	105.5	113.9
Width (mm)	74.7	65.1	65.8
Length/width	1.4	1.4	1.7

TABLE 5-continued

FOLIAGE CHARACTERISTICS			
Characteristic	'VISION' (3 Foliate)	'GRAN-DEUR' (U.S. Plant Pat. No. 20,459) (3 Foliate)	'BOUN-TIFUL' (U.S. Plant Pat. No. 27,582) (3 Foliate)
ratio	Longer than broad	Longer than broad	Much longer than broad
Rachis length (mm)	34.9	36.2	37.1
Orientation	Opposite	Opposite	Opposite
Arrangement	Compound	Compound	Compound
Shape	Ovate	Ovate	Ovate
Overlapping	Touching	Touching	Free
Shape of the base	Rounded	Oblique rounded	Acute
Shape of the tip	Acuminate	Acuminate	Acuminate
Margins	Biserrate	Biserrate	Biserrate
Petiole:			
Length (mm)	60.65	59.00	63.82
Width (mm)	2.76	3.99	3.22
Thorn presence	Yes	Yes	Yes
Thorn orientation	Erect	Erect	Erect
Anthocyanin coloration of upper surface	RHS 184B Greyed-purple group	RHS 184C Greyed-purple group	RHS 184B Greyed-purple group
Anthocyanin intensity of upper surface	Absent to very weak	Weak	Absent to very weak
Stipule length (mm)	10.29	10.23	11.19
Stipule orientation	Erect	Erect to horizontal	Erect

TABLE 6

FLOWER CHARACTERISTICS			
Characteristic	'VISION'	'GRAN-DEUR' (U.S. Plant Pat. No. 20,459)	'BOUN-TIFUL' (U.S. Plant Pat. No. 27,582)
Petal color	155C White group	155C White group	155C White group
Flower diameter (mm)	21.77	22.55	24.53
Petal Length (mm)	8.28	6.42	6.62
Petal width (mm)	3.20	3.1	2.89
Petal length/width ratio	2.59	2.06	2.29
ratio	Much longer than broad	Much longer than broad	Much longer than broad

TABLE 6-continued

FLOWER CHARACTERISTICS			
Characteristic	'VISION'	'GRAN-DEUR' (U.S. Plant Pat. No. 20,459)	'BOUN-TIFUL' (U.S. Plant Pat. No. 27,582)
No. petals/flower	5.0	5.2	5.4
No. sepals/flower	5.0	5.2	5.4
Relative number of pedicel thorns	12.5	16.2	25.8
Peduncle	Medium	Medium	Many
anthocyanin presence	Present	Present	Present
Peduncle anthocyanin coloration	RHS 184C Greyed-purple group	RHS 184A Greyed-purple group	RHS 184A Greyed-purple group
Peduncle anthocyanin intensity	Weak	Medium	Weal

TABLE 7

PEST AND DISEASE REACTIONS			
Characteristic	'VISION'	'GRAN-DEUR' (U.S. Plant Pat. No. 20,459)	'BOUN-TIFUL' (U.S. Plant Pat. No. 27,582)
Spotted wing <i>drosophila</i> (<i>Drosophila suzukii</i>)	Susceptible	Susceptible	Susceptible
Two-spotted spider mite (<i>Tetranychus urticae</i>)	Susceptible	Susceptible	Susceptible
Grey fruit mold (<i>Botrytis cinerea</i>)	Susceptible	Susceptible	Susceptible
Powdery mildew (<i>Podosphaera aphanis</i> var. <i>aphanis</i>)	Moderately resistant	Moderately susceptible	Moderately susceptible
Yellow rust (<i>Phragmidium rubi-idaei</i>)	Susceptible	Moderately susceptible	Moderately susceptible

The invention claimed is:
 1. A new and distinct raspberry variety named 'VISION', as herein described and illustrated by the characteristics set forth above.

* * * * *

FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4

