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Ackerman et al.

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(54) **STRAWBERRY PLANT NAMED 'PS-1.125'**

(50) Latin Name: ***Fragaria ananassa***
Varietal Denomination: **PS-1.125**

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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 'PS-1.125'. This new strawberry plant named 'PS-1.125' is primarily adapted to the growing conditions of the central coast of California, and is primarily characterized by its medium red skin color, conical fruit shape, very good fruit flavor, early fruit ripening, medium to large plant, and long fruiting truss.

4 Drawing Sheets

Latin name of the genus and species of the plant claimed: *Fragaria ananassa.*

Variety denomination: 'PS-1.125'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct strawberry variety named 'PS-1.125'. This new variety is a result of a controlled cross made in 2001 in an ongoing breeding program between strawberry variety designated 'PS-3523' (patented, U.S. Plant Pat. No. 14,447) and strawberry variety designated 'PS-4634' (patented, U.S. Plant Pat. No. 17,487). 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 Monterey County, Calif. in the summer of 2003. After its selection, the new variety was asexually propagated by stolons in both San Joaquin County, Calif. and Siskiyou County, Calif. The new variety was extensively tested over the next several years in fruiting fields in Monterey 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-1.125' 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 April through November production months.

The following traits have been repeatedly observed and are determined to be unique characteristics of 'PS-1.125', which in combination distinguish this strawberry plant as a new and distinct variety:

1. Medium red skin color;
2. Conical fruit shape;
3. Very good fruit flavor;
4. Early fruit ripening;
5. Medium to large plant; and
6. Long fruiting truss.

The strawberry variety that is believed to be most closely related to the new variety 'PS-1.125' is 'PS-4634' (patented, U.S. Plant Pat. No. 17,487). In side-by-side comparisons to the similar strawberry variety 'PS-4634', 'PS-1.125' differs by the following combination of characteristics as described in Table 1.

TABLE 1

COMPARISON TO THE STANDARD VARIETY

Characteristic	'PS-1.125'	'PS-4634' (U.S. Plant Pat. No. 17,487)
Fruit color	Red	Ranges from orange red to red
Fruit size	Medium	Ranges from large to very large
Difference in shape between primary and secondary fruit	Slight	Moderate
Expression of hollow core	Moderate	Strong
Position of fruiting truss relative to foliage	Ranges from level with to above the foliage	Level with the foliage
Petal shape	Longer than broad	As long as broad
Size of inner calyx relative to outer calyx	Ranges from same size to smaller	Ranges from same size to larger

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

'PS-1.125' differs from its parents, 'PS-3523' and 'PS-4634' by the following combination of characteristics as described in Table 2.

TABLE 2

COMPARISON TO THE PARENT VARIETIES

Characteristic	'PS-1.125'	'PS-3523' (U.S. Plant Pat. No. 14,447)	'PS-4634' (U.S. Plant Pat. No. 17,487)
Fruit color	Red	Ranges from orange red to red	Ranges from orange red to red
Average marketable yield	1,829 grams/plant	1,577 grams/plant	1,689 grams/plant
Position of inflorescence relative to foliage	Ranges from level with to above	Above	Level with
Difference in shape between primary and secondary fruit	Slight	Ranges from moderate to marked	Moderate

BRIEF DESCRIPTIONS OF THE PHOTOGRAPHS

The accompanying color photographs illustrate the overall appearance of typical specimens of the new strawberry variety 'PS-1.125', 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 'PS-1.125'. The depicted plant and plant parts of the new strawberry variety 'PS-1.125' are between eight and nine months old. The photographs were taken in Monterey County, Calif.:

FIG. **1** shows typical fruiting field characteristics of 'PS-1.125', taken in the month of July 2011;

FIG. **2** shows a close-up view of the typical leaf structure of 'PS-1.125', taken in the month of July 2011;

FIG. **3** shows typical mature and immature field fruit of 'PS-1.125', taken in the month of July 2011; and

FIG. **4** shows typical internal and external mature fruit characteristics of 'PS-1.125', taken in the month of August 2011.

DETAILED BOTANICAL DESCRIPTION

The new variety 'PS-1.125' has not been observed under all possible environmental conditions. The characteristics of the new variety 'PS-1.125' 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 'PS-1.125', unless otherwise noted, are based on observations taken during the 2011growing season in Monterey County, Calif. These measurements and ratings were taken from plants of 'PS-1.125' dug from a high-elevation nursery located in Siskiyou County, Calif. during mid October 2010 and planted between two and three weeks later in Monterey County, Calif. The approximate age of the observed plants is between eight and nine months. Yield observations and fruit quality characteristics are averaged from three years of data collected from the 2008 through 2010 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 disease characteristics of the new strawberry 'PS-1.125' in comparison to the similar strawberry variety 'PS-4634'.

TABLE 3

FRUIT CHARACTERISTICS

Characteristic	'PS-1.125'	'PS-4634' (U.S. Plant Pat. No. 17,487)
Color of mature fruit	RHS 45A Red	RHS 45B Ranges from orange red to red
Color of internal flesh	RHS 44C Ranges from light red to medium red	RHS 44C Ranges from light red to medium red
Fruit length (cm)	4.0	4.3
Fruit width (cm)	3.7	3.9
Fruit size	Medium	Ranges from large to very large
Fruit length/width ratio	1.09 Ranges from as long as broad to slightly longer than broad	1.11 Slightly longer than broad
Calyx diameter (cm)	3.6	4.0
Average fruit weight (gm)	25.5	27.7
Achene color, shaded side	RHS 160B Greyed yellow group	RHS 162C Greyed yellow group
Achene color, sun-exposed side	RHS 185A Greyed purple group	RHS 184C Greyed purple group
Achenes per berry	441	437
Achene weight (mg)	0.53	0.40
Marketable fruit yield (gm/plant)	1,829	1,689
Predominant fruit shape	Conical	Conical
Difference in shape between primary and secondary fruit	Slight	Moderate
Band without achenes	Narrow	Narrow
Unevenness of fruit surface	Weak	Weak
Evenness of fruit color	Slightly uneven	Ranges from slightly uneven to even
Fruit glossiness	Strong	Strong
Insertion of achenes	Level with surface	Level with surface
Insertion of calyx	in basin	Ranges from in basin to level
Attitude of calyx	Ranges from spreading to reflexed	Ranges from spreading to reflexed
Size of calyx in relation to fruit diameter	Same size	Same size
Adherence of calyx	Strong	Strong
Firmness of fruit skin	Strong	Strong
Firmness of fruit flesh	Ranges from medium to firm	Medium
Keeping quality	Good	Very good
Distribution of red color of the flesh	Marginal and central	Marginal and central
Hollow center expression	Moderate	Strong
Fruit flavor	Ranges from very good to good	Very good
Soluble solids (% brix)	8.0	8.3
Time of first flowering	Early	Early
Time of first harvesting	Early	Early
Harvest period	Late March to November	Late March to November
Type of bearing	June bearing	June bearing

TABLE 4

PLANT CHARACTERISTICS

Characteristic	'PS-1.125'	'PS-4634' (U.S. Plant Pat. No. 17,487)
Plant height (cm)	28.9	28.8
Plant spread (cm)	36.3	39.1
Plant size	Ranges from large to medium	Large
Plant habit	Globose	Globose
Plant density	Medium	Medium
Plant vigor	Strong	Strong

TABLE 5

STOLON CHARACTERISTICS

Characteristic	'PS-1.125'	'PS-4634' (U.S. Plant Pat. No. 17,487)
Stolon color	RHS 146C Yellow green group	RHS 146D Yellow green group
Stolon anthocyanin coloration	RHS 182A Greyed red group	RHS 182D Greyed red group
Stolon anthocyanin intensity	Weak	Ranges from weak to medium
Stolon pubescence	Medium	Ranges from weak to medium
Attitude of hairs	Upward	Upward
Average stolon quantity	Ranges from medium to many	Ranges from medium to many
Stolon diameter at bract (mm)	3.5	3.4

TABLE 6

FOLIAGE CHARACTERISTICS

Characteristic	'PS-1.125'	'PS-4634' (U.S. Plant Pat. No. 17,487)
Foliage:		
Color of upper surface	RHS 137B Medium green	RHS 137A Medium green
Color of underside	RHS 147C Yellow green group	RHS 147C Yellow green group
Number of leaflets	3	3
Shape in cross section	Slightly concave to flat	Slightly concave to flat
Interveinal blistering	Medium	Ranges from medium to strong
Leaf glossiness	Medium	Ranges from medium to strong
Terminal Leaflet:		
Length (cm)	9.2	9.5
Width (cm)	7.2	6.9
Leaf size	Ranges from large to medium	Ranges from large to medium
Length/width ratio	1.27	1.36
	Ranges from longer than broad to much longer than broad	Much longer than broad
Shape of base	Acute	Acute
Shape of teeth	Obtuse	Obtuse
Serrations per leaf	18.3	22.1
Petiole:		
Petiole color	RHS 144A Yellow green group	RHS 145A Yellow green group
Petiole length (cm)	19.8	20.2
Petiole diameter (mm)	4.2	4.4
Petiolule color	RHS 144A Yellow green group	RHS 145A Yellow green group

TABLE 6-continued

FOLIAGE CHARACTERISTICS

Characteristic	'PS-1.125'	'PS-4634' (U.S. Plant Pat. No. 17,487)
Petiolule length (mm)	8.3	7.8
Attitude of hairs	Upward	Strongly outward
Petiole pubescence	Sparse	Ranges from moderate to sparse
Stipule:		
Color	RHS 146B Yellow green group	RHS 146B Yellow green group
Anthocyanin	RHS 61A	RHS 58A
coloration	Red purple group	Red purple group
Anthocyanin intensity	Strong	Strong
Length (mm)	17.4	18.7
Width (mm)	7.9	8.3

TABLE 7

FRUITING TRUSS CHARACTERISTICS

Characteristic	'PS-1.125'	'PS-4634' (U.S. Plant Pat. No. 17,487)
Anthocyanin coloration	RHS 182A Greyed red group	RHS 182D Greyed red group
Anthocyanin intensity	Weak	Absent or very weak
Length at maturity (cm)	37.2	35.3
Position relative to foliage	Ranges from level with to above	Level with
Pubescence	Weak	Ranges from weak to medium
Attitude at first pick	Prostrate	Prostrate

TABLE 8

FLOWER CHARACTERISTICS

Characteristic	'PS-1.125'	'PS-4634' (U.S. Plant Pat. No. 17,487)
Petal color	RHS NN 155C White group	RHS NN 155C White group
Sepal color	RHS 137B Green group	RHS 137A Green group
Corolla diameter (mm)	27.5	29.9
Calyx diameter (mm)	34.0	35.7
Petal length (mm)	11.1	12.3
Petal width (mm)	10.1	12.5
Petal length/width ratio	1.10	0.98
Petals/flower	5.8	5.6
Sepal length (mm)	12.3	12.8
Sepal width (mm)	4.7	5.2
Sepal length/width ratio	2.63	2.46
Sepals/flower	11.5	11.3
Size of calyx relative to corolla	Larger	Larger
Size of inner calyx relative to outer calyx	Ranges from smaller to same	Ranges from same to larger
Relative position of petals	Overlapping	Overlapping

TABLE 9

PEST AND DISEASE REACTIONS

Characteristic	'PS-1.125'	'PS-4634' (U.S. Plant Pat. No. 17,487)
Powdery mildew	Moderate	Moderately resistant
Angular leaf spot	Susceptible	Susceptible
Botrytis fruit rot	Moderately susceptible	Moderately susceptible
Two-spotted spider mite	Moderately susceptible	Moderately susceptible
Lygus bug	Susceptible	Susceptible
Flower thrips	Moderately susceptible	Moderately susceptible

We claim:

1. A new and distinct strawberry plant named 'PS-1.125', as herein described and illustrated by the characteristics set forth above.

* * * * *

FIG. 1

FIG. 2

FIG. 3

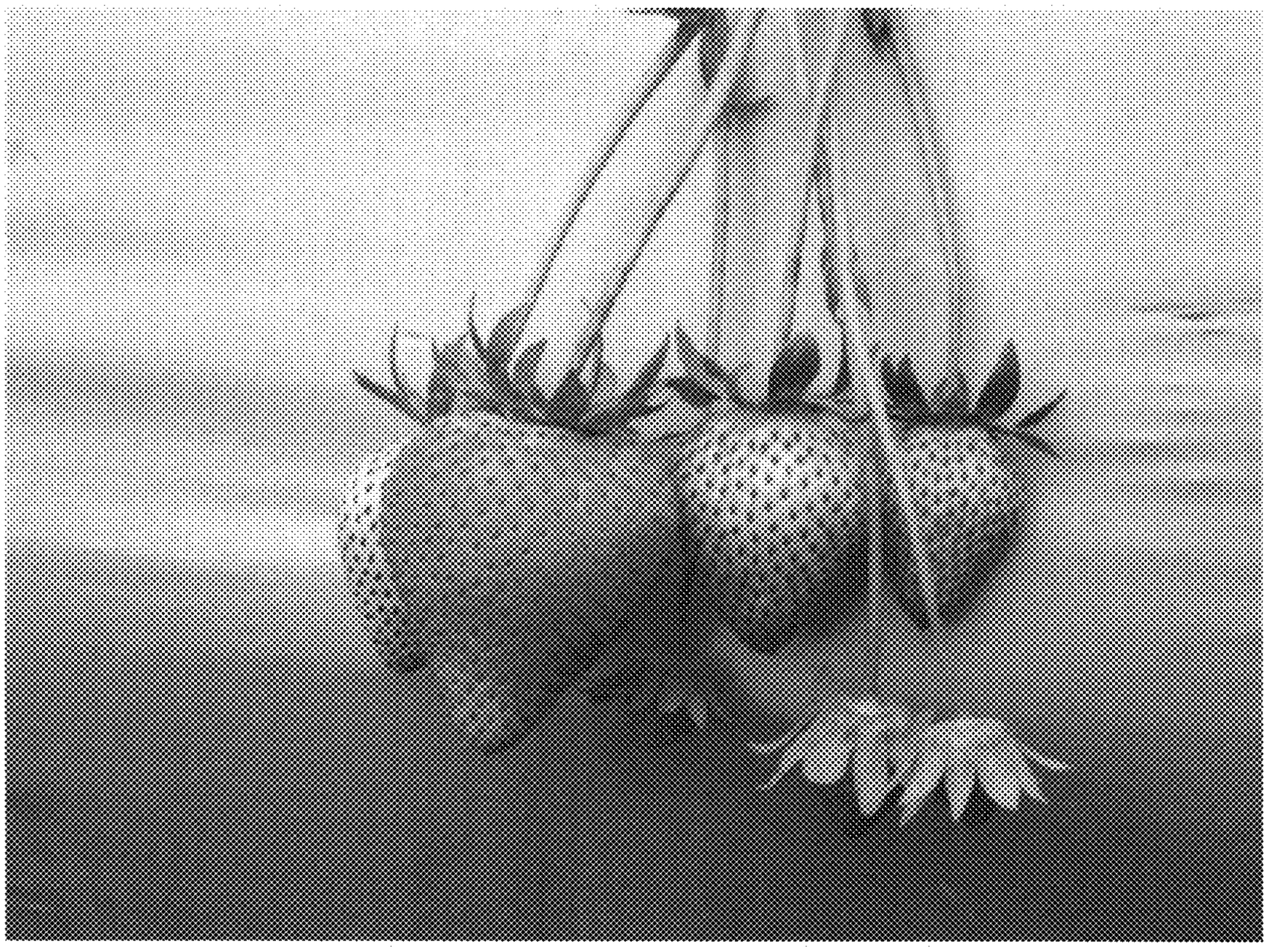

FIG. 4