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Gerdts et al.

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(54) **PEACH TREE NAMED 'BURPEACHFOURTEEN'**

(50) Latin Name: ***Prunus persica***
Varietal Denomination: **Burpeachfourteen**

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(57) **ABSTRACT**

A new and distinct variety of peach tree (*Prunus persica*), denominated varietally as 'Burpeachfourteen', and which produces an attractively colored yellow-fleshed, clingstone peach which is mature for harvesting and shipment approximately May 6 to May 13 under the ecological conditions prevailing in the San Joaquin Valley of Central California.

1 Drawing Sheet

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BACKGROUND OF THE NEW VARIETY

The present invention relates to a new, novel and distinct variety of peach tree, *Prunus persica,* which has been denominated varietally as 'Burpeachfourteen'.

ORIGIN

The present variety of peach tree resulted from an on-going program of fruit and nut tree breeding. The purpose of this program is to improve the commercial quality of deciduous fruit and nut varieties and rootstocks by creating and releasing promising selections of prunus, malus and regia species. To this end we make both controlled and hybrid cross pollinations each year in order to produce seedling populations from which improved progenies are evaluated and selected.

The seedling 'Burpeachfourteen' was originated by us from a population of seedlings grown in our experimental orchards located near Fowler, Calif. The seedlings, grown on their own roots, were the result of a controlled cross of the yellow-fleshed 'Spring Gem' peach tree (unpatented, USDA release), which was used as the pollen parent; and the white-fleshed, clingstone, seedling nectarine tree, 'B17.013', (unpatented), which was used as the seed parent. One seedling, which is the present variety, exhibited especially desirable characteristics, and was designated at 'E8.004.' This promising seedling was marked for subsequent observation. After the 1999 season, the new variety was selected for advanced evaluation and repropagation.

ASEXUAL REPRODUCTION

Asexual reproduction of the new and distinct variety of peach tree was accomplished by budding the new variety to 'Nemaguard' Rootstock (non-patented). This was performed by us in our experimental orchard which is located near Fowler, Calif. Subsequent evaluations have shown those asexual reproductions run true to the original tree. All characteristics of the original tree and its fruit were established and appear to be transmitted through succeeding asexual propagations.

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SUMMARY OF THE VARIETY

'Burpeachfourteen' is a new and distinct variety of peach tree, which is of large size, and which has vigorous growth. The new variety is a regular and productive bearer of relatively large, firm yellow flesh, clingstone fruit with good flavor and eating quality. The tree has a medium chilling requirement of approximately 600 hours. The new tree also produces relatively uniformly sized fruit throughout the tree. The fruit has a high degree of red skin coloration, and a firm flesh. The fruit further appears to have good handling and shipping qualities. In addition, the 'Burpeachfourteen' Peach tree bears fruit that are ripe for commercial harvesting and shipment on approximately May 6 to May 13 under the prevailing climate conditions experienced in the San Joaquin valley of central California. In relative comparison with the peach tree, 'Spring Gem', which is the pollen parent of the new variety, the new variety ripens 14 or more days earlier at the same geographic location.

BRIEF DESCRIPTION OF THE DRAWING

The accompanying drawing which is provided is a color photograph of the present variety. It depicts two whole mature fruit and one fruit dissected in substantially the equatorial plane thereby exposing the flesh and the pit. Additionally a characteristic twig bearing typical leaves is shown. Also a pit is displayed with the clingstone flesh removed. The external coloration of the fruit as shown is sufficiently matured for harvesting and shipment. The colors are as nearly true as is reasonably possible in a color representation of this type. Due to chemical development, processing and printing, the leaves and fruit depicted in these photographs may or may not be accurate when compared to the actual specimen. For this reason, future color references should be made to the color plates (Royal Horticultural Society) and descriptions provided.

DETAILED DESCRIPTION

Referring more specifically to the pomological details of this new and distinct variety of peach tree, the following has been observed during the fourth fruiting season under the

ecological conditions prevailing at our orchard which is located near the town of Fowler, county of Fresno, state of California. All major color code designations are by reference to The R.H.S. Colour Chart (Fourth Edition) provided by The Royal Horticultural Society of Great Britain.

Tree:

Size.—Generally. — Considered medium large when compared to other common commercial peach cultivars ripening in the early season of maturity. The trees of the present variety were pruned to a height of approximately 274.0 cm to 306.0 cm at maturity.

Vigor.—Moderately vigorous. The present variety grew from about 111.0 cm to 147.0 cm in height during the first growing season. The variety was pruned to a height of approximately 104.7 cm in the first dormant season and primary scaffolds were selected for the desired tree structure.

Productivity.—Productive. Fruit set varies from about twice to several times more than the desired crop load. Fruit set is spaced by thinning to allow the remaining fruit to develop into the desired market size. Number of fruit set varies with climatic conditions and cultural practices prevailing during the bloom period, and is therefore not distinctive of the present variety.

Bearer.—Regular. Fruit set has been heavy, and thinning was necessary during the past 4 years.

Form.—Upright, and pruned to a vase shape.

Density.—Considered medium dense. It has been discovered that pruning the branches from the center of the tree to obtain a resulting vase shape allows for air movement and appropriate amounts of sunlight to enhance fruit color and renewal of fruiting wood throughout the tree.

Hardiness.—The present tree was grown and evaluated in USDA Hardiness Zone 9. Winter chilling requirements are approximately 600 hours below 7.0 degrees C. The variety appears to be hardy under typical central San Joaquin Valley climatic conditions.

Trunk:

Diameter.—Approximately 15.7 cm in diameter when measured at a distance of approximately 15.24 cm above the soil level, at the end of the fourth growing season.

Bark texture.—Considered moderately rough, with numerous folds of papery scarfskin being present.

Lenticels.—Numerous flat, oval lenticels are present. The lenticels range in size from approximately 3.0 to 6.0 millimeters in width; and from 1.0 to 2.0 millimeters in height.

Lenticel color.—Considered an Orange Brown, (RHS Greyed Orange Group 171 B).

Bark coloration.—Variable, but it is generally considered to be grey-brown, (RHS Greyed Orange Group 174 B).

Branches:

Size.—Considered medium for the variety.

Diameter.—Average as compared to other varieties. The branches have a diameter of about 7.3 centimeters when measured during the fourth year after grafting.

Surface texture.—Average, and appearing furrowed on wood which is several years old.

Crotch angles.—Primary branches are considered variable and between about 44 to 52 degrees from the horizontal axis. This characteristic is not considered distinctive of the variety however.

Current season shoots.—Surface texture — Substantially glabrous.

Internode length.—Approximately 2.1 to 2.3 cm. This characteristic can vary under various cultural practices and therefore is not considered distinctive of the present variety.

Color of mature branches.—Medium brown, (RHS Greyed Orange 174 B).

Current seasons shoots.—Color. — Light green, (RHS Yellow Green Group 152 C). The color of new shoot tips is considered a bright and shiny green (RHS Yellow Green Group 144 A).

Leaves:

Size.—Considered medium for the species. Leaf measurements have been taken from vigorous, upright, current-season growth at approximately mid-shoot.

Leaf length.—Approximately 134.0 to 163.0 millimeters.

Leaf width.—Approximately 33.0 to 46.0 millimeters.

Leaf base shape.—Slightly oblique relative to the leaf longitudinal axis.

Leaf form.—Lancelolate.

Leaf tip form.—Acuminate.

Leaf color.—Dark green, (approximately RHS Green Group 139 A).

Leaf texture.—Glabrous.

Lower surface.—Medium green, (RHS Green Group 137 C).

Leaf venation.—Pinnately veined.

Mid-vein.—Color. — Light yellow green, (RHS Yellow Green Group 145 A).

Leaf margins.—Slightly undulating. Form — Considered crenate, occasionally doubly crenate. Uniformity. — Considered generally uniform.

Leaf petioles.—Size — Considered medium. Length — About 9.0 to about 13.0 mm. Diameter — About 1.5 to about 2.5 mm. Color — Pale green, (RHS Yellow Green Group 146 C).

Leaf glands.—Size — About 1.0 mm in height and about 1.0 mm in width. Number — Generally one per side, occasionally two per side. Type — Globose, and considered reasonably unappressed to the petiole margin. Color — Orange brown, (RHS Greyed Orange Group 163 A).

Leaf stipules.—Size — Considered medium large for the variety. Number — Typically 2 per leaf bud and up to 6 per shoot tip. Form — Lanceolate in form and having a serrated margin. Color — Green, (RHS Green Group 137 C) when young but graduating to a brown color, (RHS Greyed Orange group N172 A) with advancing senescence. The stipules are considered to be early deciduous.

Flowers:

Flower buds.—Generally — The floral buds, depending upon the stage of development, are approximately 7.0 millimeters wide; and about 11.0 millimeters long; conic in form; and slightly appressed relative to the bearing shoot.

Flower buds.—Color — The bud scales are a reddish-purple color, (approximately RHS Greyed Purple Group 183 A). The buds are considered hardy under typical central San Joaquin Valley climatic conditions.

Hardiness.—No winter injury has been noted during the last several years of evaluation in the central San Joaquin Valley. The current variety has not been intentionally subjected to drought or heat stress and therefore this information is not presently available.

Date of first bloom.—Mar. 1, 2000.

Blooming time.—Considered mid-season in relative comparison to other commercial peach cultivars grown in the central San Joaquin Valley. Date of full bloom was observed on Mar. 5, 2000. The date of bloom varies slightly with climatic conditions and prevailing cultural practices.

Duration of bloom.—Approximately 9 days. This characteristic may vary slightly with climatic conditions.

Flower type.—The variety is considered to have a showy type flower.

Flower size.—Flower diameter, at full bloom, is approximately 40.0 to 44.0 millimeters.

Bloom quantity.—Considered abundant.

Flower bud frequency.—Normally 1 to 2 flower buds appear per node.

Petal size.—Generally — Considered medium for the species.

Length.—Approximately 18.0 to 20.0 millimeters.

Width.—Approximately 17.0 to 20.0 millimeters.

Petal form.—Broadly ovate.

Petal count.—Nearly always 5.

Petal texture.—Glabrous.

Petal color.—Light pink when young, (RHS Red Purple Group 63 D) and darkening with advancing senescence and exposure to sunlight to a medium to dark pink, (RHS Red Purple Group 64 C).

Fragrance.—Slight.

Petal claw.—Form — The claw is considered truncate, and has a medium size when compared to other varieties. Length — Approximately 7.0 to 9.0 millimeters. Width — Approximately 6.0 to 8.0 millimeters.

Petal margins.—Generally considered variable, from nearly smooth, to moderately undulate and ruffled, especially apically.

Petal apex.—Generally — The petal apices generally appear grooved at the tip.

Flower pedicel.—Length — Considered medium-long, and having an average length of approximately 3.0 to 4.0 millimeters. Diameter. — Considered average, approximately 2.0 millimeters. Color — A medium brown, (RHS Grey Brown Group N199 D).

Floral nectaries.—Color — A Dull orange red, (RHS Orange-Red Group N34 B).

Calyx.—Surface texture — Generally glabrous. Color — A dull red, (approximately RHS Greyed Purple Group 183 A).

Sepals.—Surface texture — The surface has a short, fine pubescent texture. Size — Average, and ovate in form. Color — A dull red, (approximately RHS Greyed Red Group 178 A).

Anthers.—Generally — Average to above average in length. Color — Red to reddish-orange dorsally, (approximately RHS Greyed Red Group 180 A).

Pollen production.—Pollen is abundant, and has a yellow color, (approximately RHS Yellow Orange Group 17 B).

Filaments.—Size — Variable in length, approximately 14.0 to 18.0 millimeters in length. Color — Considered white to a pinkish-white, (RHS Red Purple Group 62 D).

Pistil.—Number — Usually 1, occasionally 2. Generally — Average in size. Length — Approximately 18.0 to about 20.0 millimeters including the ovary. Color — Considered a very pale green, (approximately RHS Yellow Green Group 151 D). Surface texture — The variety has a long pubescent pistil.

Fruit:

Maturity when described.—Firm ripe condition (shipping ripe). Date of first picking — May 6, 2002. Date of last picking — May 13, 2002. The date of harvest varies slightly with climatic conditions.

Size.—Generally — Considered medium large, and uniform.

Average cheek diameter.—Approximately 70.0 to about 78.0 millimeters.

Average axial diameter.—Approximately 67.0 to about 72.0 millimeters.

Typical weight.—Approximately 258.0 grams. This is highly dependent upon cultural practices and therefore not distinctive of the present variety.

Fruit form.—Generally — Moderately oblate. The fruit is generally uniform in symmetry.

Fruit suture.—Shallow, and extending from the base to the apex. No apparent callousing or stitching exists along the suture line.

Suture.—Color — This appears to have a yellow to golden yellow background color (approximately RHS Yellow Orange Group 21 C), and occasionally having some red coloration, (approximately RHS Red Group 46 B).

Ventral surface.—Form — Slightly indented.

Apex.—Rounded.

Base.—Retuse.

Stem cavity.—Rounded to slightly elongated in the suture plane. Average depth of the stem cavity is about 1.25 cm. Average width is about 2.23 cm.

Fruit skin.—Thickness — Considered medium in thickness, and tenacious to the flesh. Texture — Short fine pubescence. Taste — Non-astringent. Tendency to crack — None observed.

Color.—Blush Color — This red blush color is variable from a reddish orange, (approximately RHS Orange Red Group 30 C) to a dark red, (approximately RHS Red Group 46 B). The blush color ranges from about 75% to about 90% of the fruit surface depending upon the sunlight exposure of the fruit and the prevailing growing conditions. Ground color — Yellow orange, (approximately RHS Yellow Orange Group 21 C).

Fruit stem.—Medium in length, approximately 6.0 to about 7.0 millimeters. Diameter — Approximately 2.0 to about 3.0 millimeters. Color — Pale green, (approximately RHS Yellow Green Group 144 D).

Flesh.—Ripens — Evenly. Texture — Firm, and dense. Considered non-melting. Fibers — Few, small, and tender. Aroma — Very slight. Eating Quality — Very good. Flavor — Considered sweet and mildly acidic. The flavor is considered both pleasant and balanced. Juice — Moderate. Brix — About 16.5 degrees. This characteristic varies slightly with the number of fruit per tree; prevailing cultural practices; and the surrounding climatic conditions. Flesh color — Pale yellow, (approximately RHS Yellow Orange Group 21 A).

Stone:

Type.—Clingstone.

Size.—Considered medium large for the variety.

Length.—Average, about 28.0 to about 30.0 millimeters.

Width.—Average, about 24.0 to about 26.0 millimeters.

Diameter.—Average, about 15.0 to about 19.0 millimeters.

Form.—Obovoid.

Base.—The stone is usually rounded, but may vary from rounded to straight.

Apex.—Shape. — The stone apex is raised and has an acute, short tip.

Stone surface.—Surface Texture — Irregularly furrowed toward the apex, and pitted toward the base. The stone exhibits substantial pitting laterally. Substantial grooving over the apical shoulders is evident. Surface pitting is prominent generally, and more frequently, it is present basally. Ridges — The surface texture varies from sharp to rounded.

Ventral edge.—Width — Considered medium, and having a dimension of approximately 3.0 to about 5.5 millimeters when measured at mid-suture. The wings are most prominent over the suture line.

Dorsal edge.—Shape. — Full, heavily grooved, and having jagged edges. The dorsal edge is moderately eroded over the apical shoulder.

Stone color.—The color of the dry stone is an orange white, (approximately RHS Orange White Group 159 B).

Tendency to split.—Occasional splitting has been noted.

Kernel.—Form — The kernel is gelatinous and immature when the fruit is fully mature. Texture — Shriveled Pellicle — Pubescence is not fully developed at fruit senescence. Color — (RHS Greyed-Orange Group 164 B).

Use.—The subject variety 'Burpeachfourteen' is considered to be an early maturing Peach tree which produces fruit which are considered firm, attractively colored, and which are useful for both local and long distance shipping.

Keeping quality.—Excellent. Fruit has stored well up to 28 days after harvest at 1.0 degree Celsius.

Shipping quality.—Good. Fruit showed minimal bruising of the flesh or skin damage after being subjected to normal harvest and packing procedures.

Resistance to insects and disease.—No particular susceptibilities were noted. The present variety has not been tested to expose or detect any susceptibilities or resistances to any known plant and/or fruit diseases.

Although the new variety of peach tree possesses the described characteristics when grown under the ecological conditions prevailing near Fowler, Calif., in the Central part of the San Joaquin Valley of California, it should be understood that variations of the usual magnitude and characteristics incident to changes in growing conditions, fertilization, pruning, pest control and horticultural management are to be expected.

Having thus described and illustrated our new variety of peach tree, what we claim is new and desire to secure by Plant Letters Patent is:

1. A new distinct variety of peach tree substantially as illustrated and described, and which is characterized principally as to novelty by producing an attractively colored yellow-fleshed, clingstone peach which is mature for harvesting and shipment approximately May 6 to May 13 under the ecological conditions prevailing in the San Joaquin Valley of Central California.

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