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Zaiger et al.

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

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

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

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(57) **ABSTRACT**

A new and distinct variety of peach tree (*Prunus persica*). The following features of the tree and its fruit are characterized with the tree budded on 'Nemaguard' Rootstock (non-patented), grown on Handford sandy loam soil with Storie Index rating 95, in USDA Hardiness Zone 9, near Modesto, Calif., with standard commercial fruit growing practices, such as pruning, thinning, spraying, irrigation and fertilization. Its novelty consist of the following combination of desirable features:

1. Vigorous, upright tree growth.
2. Regular and productive bearer of large size fruit.
3. Fruit with firm, non-melting, yellow flesh suitable for mechanical pitters.
4. Fruit with good flavor and eating quality fresh as well as canned.
5. Fruit with good storage and shipping quality.

1 Drawing Sheet

Botanical designation: *Prunus persica.*
Variety denomination: 'CALAVERAS'.

BACKGROUND OF THE VARIETY

1. Field of the Invention

In the field of plant genetics, we conduct an extensive and continuing plant-breeding program including the organization and asexual reproduction of orchard trees, and of which plums, peaches, nectarines, apricots, cherries, almonds and interspecifics are exemplary. It was against this background of our activities that the present variety of peach tree was originated and asexually reproduced by us in our experimental orchard located near Modesto, Stanislaus County, Calif.

2. Prior Varieties

Among the existing varieties of peach trees, which are known to us, and mentioned herein, 'Stanislaus' Peach (U.S. Plant Pat. No. 8,376) and our non-patented proprietary peach seedling selections '41LG80', '288LC126' and '72LD654'.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH AND DEVELOPMENT

Not applicable.

ORIGIN OF THE VARIETY

The new and distinct variety of peach tree (*Prunus persica*) was developed by us in our experimental orchard

located near Modesto, Calif. from open pollinated seed collected from our non-patented proprietary peach seedling selection with the field identification number '41LG80'. The seed parent (41LG80) originated as a first generation cross between our proprietary non-patented peach selections '288LC126' and '72LD654'. A large group of these open pollinated seedlings were planted and maintained on their own root system, during which time we recognized the desirable tree and fruit characteristics of the present seedling and selected it in 1996 for additional asexual propagation and commercialization.

ASEXUAL REPRODUCTION OF THE VARIETY

In 1996 asexual reproduction of the new and distinct variety of peach tree was by budding to 'Nemaguard' Rootstock (non-patented), as performed by us in our experimental orchard located near Modesto, Calif., and shows that reproductions run true to the original tree and all characteristics of the tree and its fruit are established and transmitted through succeeding asexual propagations.

SUMMARY OF THE NEW VARIETY

The present new variety of peach tree (*Prunus persica*) is of large size, vigorous, upright growth and a regular and productive bearer of large size, non-melting, yellow flesh, clingstone fruit with good flavor and eating quality. The fruit is further characterized by having an attractive yellow/orange skin color and having good handling and shipping qualities. The fruit is further characterized by maturing

relatively uniform throughout the tree and maintaining excellent shape, texture, color and appearance after being canned. In comparison to its non-patented peach seed parent '41LG80' the tree of the new variety has fruit with firmer flesh, a lower winter chilling requirement and is approximately 23 days earlier in maturity. In comparison to the commercial variety 'Stanislaus' Peach (U.S. Plant Pat. No. 8,376) the fruit of the new variety is firmer, more uniform ripening throughout the tree and is approximately 12 days earlier in maturity.

DESCRIPTION OF PHOTOGRAPH

The accompanying color photographic illustration shows typical specimens of the foliage and fruit of the present new peach variety. The illustration shows the upper and lower surface of the leaves, an exterior and sectional view of a single fruit divided in its suture plane to show flesh color, pit cavity and the stone remaining in place. The photographic illustration was taken shortly after being picked (shipping ripe) from a 18 year old tree and the colors are as nearly true as is reasonably possible in a color representation of this type.

DESCRIPTION OF THE VARIETY

The following is a detailed botanical description of the new variety of peach tree, its flowers, foliage and fruit, as based on observations of 18 year old specimens grown near Modesto, Calif., with color in accordance with Munsell Book of Color published in 1958.

Tree:

Size.—Large, usually pruned to 3 to 3.5 meters in height and width for economical harvesting of fruit. Size varies with different cultural practices.

Vigor.—Vigorous, growth of 1.5 to 2 meters the first growing season. Varies slightly with type and fertility of soil, climatic conditions and cultural practices.

Form.—Upright, usually pruned to vase shape.

Branching habit.—Upright, crotch angle approximately 35°, increases with heavy crop load.

Productivity.—Productive, thinning and spacing necessary for desired market size fruit. Number of fruit set varies with climatic conditions during blooming period.

Bearer.—Regular, has had adequate fruit set 16 consecutive years. No alternate bearing observed.

Fertility.—Self fertile.

Density.—Medium dense, usually pruned to vase shape to increase air movement and sunlight to center of tree to enhance fruit color and health of fruit wood.

Hardiness.—Hardy in all stone fruit growing areas of California. Tree grown in USDA Hardiness Zone 9. Winter chilling requirement approximately 800 hours at or below 45° F.

Trunk:

Size.—Medium. Average circumference 50.8 cm at 25.4 cm above ground on a 18 year old tree.

Stocky.—Medium stocky.

Texture.—Medium shaggy, roughness increases with age.

Color.—Varies from 10YR 4/2 to 2.5Y 3/2.

Branches:

Size.—Medium. Average circumference 22.6 cm at 1.2 meters above ground. Crotch angle approximately 35°, increases with heavy crop load.

Surface texture.—New growth relatively smooth. Mature growth medium rough, roughness increases with age.

Lenticels.—Average number 6 in a 25.8 square cm section. Average length 8.9 mm. Average width 2.9 mm. Color varies from 7.5YR 5/10 to 5YR 5/8.

Color.—New growth varies from 2.5GY 6/6 to 5GY 6/6. Mature growth varies from 10YR 3/6 to 2.5Y 3/4, varies with age of growth.

Leaves:

Size.—Medium to large. Average length 132.4 mm. Average width 38.5 mm.

Form.—Lanceolate.

Apex.—Acuminate.

Base.—Cuneate.

Margin.—Crenate.

Thickness.—Medium.

Surface texture.—Upper surface relatively smooth, slight indentations over midrib and leaf veins. Lower surface relatively smooth, except for small ridges created by midrib and pinnate venation. Both upper and lower surfaces glabrous.

Petiole.—Medium. Average length 8.2 mm. Average width 1.5 mm. Longitudinally grooved. Surface — glabrous. Color varies from 5GY 5/6 to 5GY 4/8.

Glands.—Type — reniform. Size — medium to large. Average length 1.2 mm. Average diameter 0.8 mm. Number varies from 3 to 5, average number 4. Located primarily on the base of leaf blade and the upper portion of the petiole. Color varies from 5GY 5/6 to 5GY 5/8.

Stipules.—Average number 2. Average length 8.0 mm. Edges — pectinate. Color 5GY 5/8.

Color.—Upper surface varies from 7.5GY 3/4 to 7.5GY 2/4. Lower surface varies from 5GY 3/6 to 7.5GY 4/4. Midvein color varies from 5GY 7/6 to 5GY 6/6.

Flower buds:

Size.—Medium. Average length 14.8 mm. Average diameter 8.2 mm.

Hardiness.—Hardy with respect to California winters.

Density.—Dense.

Form.—Conical, becoming elongated just before opening.

Pedicel.—Small to medium. Average length 4.0 mm. Average width 1.6 mm. Color varies from 10Y 8/8 to 10Y 8/6. Surface glabrous.

Color.—Varies from 7.5RP 6/10 to 7.5RP 8/6.

Flowers:

Blooming period.—Date of First Bloom Feb. 14, 2014. Date of Petal Fall Feb. 24, 2014, varies slightly with climatic conditions.

Size.—Medium, non-showy. Average length 16.5 mm. Average diameter 18.5 mm.

Petals.—Normally 5, alternately arranged to sepals. Size — medium. Average length 10.8 mm. Average width 8.6 mm. Form — elliptical. Margin — sinuate. Arrangement — free. Petal apex — rounded. Petal base — truncated. Color varies from 5RP 6/12 to 7.5RP 8/6, varies with age of flower. Both upper and lower surfaces glabrous.

Sepals.—Normally 5, alternately arranged to petals. Size — medium to large. Average length 5.4 mm. Average width 5.5 mm. Shape — ovate. Margin — entire. Apex — rounded to triangular. Surface —

upper surface glabrous, lower surface pubescent. Color — upper surface varies from 5GY 5/6 to 5GY 4/6. Lower surface varies from 2.5GY 5/8 to 5GY 5/8.

Stamens.—Average number per flower 43. Average filament length 13.3 mm. On average, the stamens are above the height of the petals. Filament color N 9.5/(white). Anther color varies from 5R 3/6 to 10YR 8/4.

Pollen.—Self fertile. Color varies from 5Y 8/10 to 5Y 8/8.

Pistil.—Number — normally 1. Average length 14.9 mm. Surface — pubescent. Position of stigma an average of 1.9 mm below anthers. Color varies from 10Y 7/8 to 10Y 7/10.

Fragrance.—Moderate.

Color.—Varies from 7.5RP 8/4 to 5RP 6/10.

Number flowers per flower bud.—Normally one.

Pedicel.—Average length 3.8 mm. Average width 2.0 mm. Color varies from 10Y 8/8 to 10Y 8/6. Surface glabrous.

Fruit:

Maturity when described.—Firm ripe and ready for consumption and processing.

Date of first picking.—Jun. 28, 2014.

Date of last picking.—Jul. 5, 2014, varies slightly with climatic conditions.

Size.—Large. Average diameter axially 61.5 mm. Average transversely in suture plane 73.1 mm. Average weight 210.2 grams, varies slightly with fertility of the soil, amount of thinning and climatic conditions.

Form.—Globose.

Suture.—Slightly lipped, extends from base to apex.

Ventral surface.—Nearly smooth.

Apex.—Slightly retuse.

Base.—Flat to slightly retuse.

Stem cavity.—Rounded to slightly elongated in suture plane. Average depth 9.5 mm. Average diameter 10.3 mm.

Stem:

Size.—Small. Average length 9.9 mm. Average diameter 3.0 mm.

Color.—Varies from 2.5GY 6/8 to 5GY 7/8.

Flesh:

Ripens.—Evenly.

Texture.—Firm, meaty.

Fibers.—Few, small, tender.

Firmness.—Firm, comparable to other commercial varieties.

Aroma.—Moderate.

Amydgalin.—Undetected.

Eating quality.—Good.

Flavor.—Good, with a good balance between acid and sugar.

Juice.—Heavy, enhances flavor.

Acidity.—Not available.

Brix.—Average Brix 11.0°, varies slightly with amount of fruit per tree and climatic conditions.

Color.—10YR 8/12.

Pit cavity.—Average length 31.7 mm. Average width 27.0 mm. Average depth 11.4 mm. Color 8.5YR 7/14.

Skin:

Thickness.—Medium.

Surface.—Smooth.

Pubescence.—Moderate amount, short in length.

Tendency to crack.—None.

Color.—Color varies from 2.5Y 8.5/10 to 8.75YR 7/12.

Tenacity.—Tenacious to flesh.

Astringency.—Undetected.

Stone:

Type.—Clingstone, medium adherence to flesh.

Size.—Large. Average length 30.7 mm. Average width 26.0 mm. Average thickness 21.5 mm.

Form.—Ovoid.

Base.—Flat.

Apex.—Rounded.

Surface.—Pitted throughout, pits vary from round to elongated.

Sides.—Unequal, one side extending further from suture plane.

Ridges.—Small, narrow ridge extending from base toward apex.

Tendency to split.—None.

Color.—Varies from 7.5YR 5/8 to 7.5YR 4/8 when dry.

Kernel:

Size.—Medium. Average length 14.9 mm. Average width 10.6 mm. Average depth 6.4 mm.

Form.—Ovoid.

Viability.—Viable, complete embryo development.

Skin color.—Varies from 2.5Y 8.5/10 to 7.5YR 5/10.

Use: Dessert. Market — local and long distance.

Keeping quality: Good, held firm in cold storage at 38° to 42° F. for 3 weeks without internal breakdown of flesh or appreciable loss of flavor.

Shipping quality: Good, minimal skin scarring or bruising of flesh during picking, packing and shipping trials.

Plant/fruit disease resistance/susceptibility: No specific testing for relative plant/fruit disease resistance/susceptibility has been designed. Under close observation during planting, growing, and harvesting of fruit, under normal cultural and growing conditions near Modesto, Calif., no particular plant/fruit disease resistance or susceptibility has been observed. Any variety or selection observed during indexing of plant characteristics with abnormal fungus, bacterial, virus or insect susceptibility is destroyed and eliminated from our breeding program. No atypical resistances/susceptibilities have been noted under normal cultural practices. The present new variety of peach tree, its flowers, foliage and fruit herein described may vary in slight detail due to climate, soil conditions and cultural practices under which the variety may be grown. The present description is that of the variety grown under the ecological conditions prevailing near Modesto, Calif.

It is claimed:

1. A new and distinct variety of peach tree (*Prunus persica*), substantially as illustrated and described.

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