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Zaiger et al.

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

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

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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. Tree with vigorous, upright 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.
5. Fruit with good storage and shipping quality.

1 Drawing Sheet

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

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, 'Diamente' Peach (non-patented), 'Klamath' Peach (U.S. Plant Pat. No. 15,557), our proprietary non-patented peach seedling selections '14HA602', '286LC126', '13EB307' and the non-patented cling peach seedling 'A297'.

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. as a first generation cross

between our proprietary non-patented peach seedling selections '14HA602' and '288LC126'. The seed parent (14HA602) originated as an open pollinated seedling selection from 'Diamente' Peach (non-patented). The pollen parent (288LC126) originated from a first generation cross between the non-patented cling peach seedling 'A297' and our proprietary non-patented peach seedling '13EB307'. A large number of these first generation seedlings were planted and grown on their own root system. Under close and careful observation we recognized the desirable tree and fruit characteristics of the present seedling and selected it in 1993 for additional asexual propagation and commercialization.

ASEXUAL REPRODUCTION OF THE VARIETY

In 1993 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 orange skin color and maturing relatively uniform throughout the tree and maintaining excellent shape, texture, color and appearance after being canned. In comparison to its proprietary

non-patented seed parent (14HA602) the fruit of the new variety is larger in size and is approximately 4 days earlier in maturity. In comparison to its proprietary non-patented pollen parent (288LC126) the fruit of the new variety has good flavor and has yellow flesh compared to orange. In comparison to the commercial variety 'Klamath' Peach (U.S. Plant Pat. No. 15,557) the fruit of the new variety is approximately 15 days earlier in maturity.

DESCRIPTION OF THE 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 19 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 19 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 in height and width 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 of fruit necessary for desired market size fruit. Number of fruit set varies with climatic conditions during blooming period.

Bearer.—Regular, has had adequate fruit set 17 consecutive years. No alternate bearing observed.

Fertility.—Self fertile.

Density.—Medium dense, usually pruned to vase shape to increase air movement and sunlight 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.—Large, average circumference 66.0 cm at 25.4 cm above ground on a 19 year old tree.

Stocky.—Medium stocky.

Texture.—Medium shaggy, roughness increases with age.

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

Branches:

Size.—Medium. Average circumference 20.3 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 24 in a 25.8 square cm area. Average length 4.1 mm. Average width 2.1 mm. Color varies from 10YR 4/6 to 10YR 4/8.

Color.—New growth varies from 5GY 7/6 to 5GY 6/6. Mature growth varies from 2.5Y 4/2 to 2.5Y 3/4, varies with age of growth.

Leaves:

Size.—Medium. Average length 130.9 mm. Average width 36.6 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.—Average length 8.9 mm. Average width 1.5 mm. Longitudinally grooved. Surface — glabrous. Color varies from 5GY 6/6 to 5GY 7/6.

Glands.—Type — globose. Size — small. Average length 0.8 mm. Average diameter 0.6 mm. Number varies from 1 to 3, average number 2. Located primarily on the base of leaf blade and upper portion of the petiole. Color varies from 5GY 6/6 to 5GY 6/8.

Stipules.—Average number 2. Average length 11.3 mm. Edges — pectinate. Color varies from 5GY 6/6 to 5GY 6/8.

Color.—Upper surface varies from 7.5GY 4/4 to 5GY 3/6. Lower surface varies from 5GY 5/4 to 5GY 4/4. Midvein color varies from 2.5GY 7/4 to 5GY 6/6.

Flower buds:

Size.—Medium. Average length 16.8 mm. Average diameter 8.9 mm.

Hardiness.—Hardy with respect to California winters.

Density.—Dense.

Form.—Conical, becoming elongated just before opening.

Pedicel.—Average length 2.7 mm. Average width 1.3 mm. Color varies from 2.5GY 5/8 to 5GY 6/8. Surface glabrous.

Color.—Varies from 7.5RP 6/10 to 7.5RP 5/12.

Flowers:

Blooming period.—Date of First Bloom Feb. 22, 2015. Date of Petal Fall Mar. 2, 2015, varies slightly with climatic conditions.

Size.—Medium, non-showy. Average height 17.3 mm. Average diameter 25.4 mm.

Petals.—Normally 5, alternately arranged to sepals. Size — medium. Average length 13.4 mm. Average width 10.6 mm. Form — elliptical. Petal apex rounded. Petal base truncate. Margin — sinuate. Arrangement — free. Both upper and lower surfaces glabrous. Color varies from 7.5RP 7/8 to 7.5RP 6/10, fades with age of flowers.

Sepals.—Normally 5, alternately arranged to petals. Size — medium. Average length 5.8 mm. Average width 5.5 mm. Shape — ovate, apex rounded to triangular. Margin — entire. Color — upper surface

varies from 5GY 6/8 to 5GY 5/6. Lower surface varies from 5R 2/6 to 5GY 5/6. Surface — upper surface glabrous, lower surface pubescent.

Stamens.—Average number per flower 45. On average, the stamens are above the height of the petals. Filament color varies from N 9.5/(white) to 5RP 6/10, depending on age of flower. Anther color varies from 7.5R 3/10 to 5Y 8/8.

Pollen.—Self fertile. Color varies from 2.5Y 7/12 to 5Y 7/12.

Pistil.—Normally one. Average length 18.3 mm. Position of stigma an average of 1.0 mm above the anthers. Surface — pubescent. Color varies from 10Y 7/6 to 2.5GY 7/8.

Fragrance.—Slight.

Color.—Varies from 7.5RP 7/10 to 10RP 7/6.

Pedicel.—Average length 3.5 mm. Average width 1.3 mm. Color varies from 2.5GY 7/6 to 5GY 7/6. Surface glabrous.

Number flowers per flower bud.—Normally one.

Fruit:

Maturity when described.—Firm ripe and ready for consumption or canning.

Date of first picking.—Jul. 16, 2015.

Date of last picking.—Jul. 26, 2015, varies slightly with climatic conditions.

Size.—Large. Average diameter axially 66.4 mm. Average transversely in suture plane 75.0 mm. Average weight 221.5 grams, varies slightly with climatic conditions.

Form.—Globose.

Suture.—Very slightly lipped.

Ventral surface.—Very slightly lipped.

Apex.—Slightly retuse to slight pistil point.

Base.—Flat.

Stem cavity.—Rounded to slightly elongated in suture plane. Average depth 7.8 mm. Average diameter 7.3 mm.

Stem:

Size.—Small to medium. Average length 7.1 mm. Average diameter 4.2 mm.

Color.—Varies from 5GY 5/8 to 2.5GY 6/10.

Flesh:

Ripens.—Evenly.

Texture.—Firm, meaty.

Fibers.—Few, small, tender.

Firmness.—Good, comparable to other commercial peach varieties.

Aroma.—Moderate.

Amydgalin.—Undetected.

Eating quality.—Good.

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

Juice.—Heavy amount, enhances flavor.

Acidity.—Not available.

Brix.—Average Brix 10.8°, varies slightly with amount of fruit per tree and climatic conditions.

Color.—Varies from 10YR 7/10 to 10YR 7/8.

Pit cavity.—Average length 38.2 mm. Average width 31.1 mm. Average depth 14.6 mm. Color varies from 5YR 5/12 to 5YR 6/10.

Skin:

Thickness.—Medium.

Surface.—Smooth.

Pubescence.—Moderate amount, short in length.

Tendency to crack.—None.

Color.—Ground color varies from 7.5YR 6/12 to 7.5YR 6/10. Partially overspread with 7.5R 4/12 to 5R 4/10.

Tenacity.—Tenacious to the flesh.

Astringency.—None.

Stone:

Type.—Clingstone, strong adherence to the flesh.

Size.—Large. Average length 35.2 mm. Average width 28.1 mm. Average thickness 23.2 mm.

Form.—Obovoid.

Base.—Flat.

Apex.—Pointed. Average length 3.0 mm.

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 4/8 to 7.5YR 5/10 when dry.

Kernel:

Size.—Medium. Average length 15.2 mm. Average width 12.7 mm. Average depth 6.6 mm.

Form.—Ovoid.

Viability.—Viable, complete embryo development.

Skin color.—Varies from 7.5YR 5/8 to 7.5YR 6/10.

Use:

Canning.—Dessert. Market — local and long distance.

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

Shipping quality: Good, showed minimal skin scarring or flesh bruising 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.

The invention claimed is:

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

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