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Zaiger et al.

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(54) **PEACH TREE NAMED ‘Summer Jewel’**

(50) Latin Name: *Prunus persica*
Varietal Denomination: **Summer Jewel**

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(52) **U.S. Cl.**
USPC **Plt./197**

(58) **Field of Classification Search**

USPC Plt./194, 197
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, California, 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 having a vigorous, upright growth habit.
2. Tree being a regular and productive bearer of large size fruit.
3. Clingstone fruit with firm, yellow flesh.
4. Fruit having an attractive red skin color.
5. Fruit with good flavor and eating quality.

1 Drawing Sheet

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Botanical designation: *Prunus persica*.
Variety denomination: ‘Summer Jewel’.

BACKGROUND OF THE VARIETY

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 nectarine tree was originated and asexually reproduced by us in our experimental orchard located near Modesto, Stanislaus County, California.

Prior Varieties

Among the existing varieties of peach trees, which are known to us, and mentioned herein, ‘Summer Amelia’ Peach (U.S. Plant Pat. No. 24, 777), ‘Sweet Henry’ Peach (U.S. Plant Pat. No. 16, 068) and the proprietary non-patented peach seedling selections ‘165LX499’, ‘234LP426’ and ‘358LN360’.

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

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located near Modesto, California from a first generation cross between our proprietary non-patented peach seedling ‘165LX499’ and ‘Summer Amelia’ Peach (U.S. Plant Pat. No. 24, 777). The seed parent (165LX499) originated as a first generation cross between our proprietary non-patented peach seedling selections ‘234LP426’ and ‘358LN360’. A large number of these first generation seedlings were planted and grown on their own root system, during which time we recognized the desirable tree and fruit characteristics of the present seedling and selected it in 2014 for additional asexual propagation and commercialization.

ASEXUAL REPRODUCTION OF THE VARIETY

In 2014 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, California, 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 and distinct variety of peach tree is of large size, vigorous, upright growth and a regular and productive bearer of large size, yellow flesh, clingstone fruit with good flavor and eating quality. The fruit is further characterized by having firm flesh and an attractive dark red skin color. In comparison to its proprietary non-patented peach seed parent ‘165LX499’ the fruit of the new variety is approximately 7 days earlier in maturity. In comparison to its pollen parent ‘Summer Amelia’ Peach (U.S. Plant Pat. No. 24, 777) the fruit of the new variety is approximately 11

days earlier in maturity. In comparison to the commercial variety 'Sweet Henry' Peach (U.S. Plant Pat. No. 16,068) the fruit of the new variety is larger in size and is approximately 9 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 9 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 9 year old specimens grown near Modesto, California, 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 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 7 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 700 hours at or below 45° F.

Trunk:

Size.—Medium, average circumference 58.4 cm at 22.9 cm above ground on a 9 year old tree.

Stocky.—Medium stocky.

Texture.—Medium shaggy, roughness increases with age.

Color.—Varies from 7.5YR 2/2 to 10YR 2/2.

Branches:

Size.—Medium. Average circumference 10.9 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 47 in a 25.8 sq cm area. Average length 3.8 mm. Average width 2.0 mm. Color 5YR 5/8.

Color.—New growth varies from 2.5GY 6/6 to 2.5GY 5/6. Mature growth varies from 7.5YR 3/4 to 7.5YR 3/6, varies with age of growth.

Leaves:

Size.—Large. Average length 142.6 mm. Average width 42.0 mm.

Form.—Elliptical.

Apex.—Acuminate.

Base.—Cuneate.

Margin.—Serrate.

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 14.0 mm. Average width 2.0 mm. Longitudinally grooved. Surface-glabrous. Color varies from 2.5GY 7/6 to 2.5GY 6/6.

Glands.—Type-reniform. Size-small. Average length 1.4 mm. Average diameter 1.0 mm. Number varies from 1 to 4, average number 2. Located primarily on base of leaf blade and upper portion of petiole. Color varies from 2.5GY 7/6 to 2.5GY 6/6.

Stipules.—None present at time of measurement.

Color.—Upper surface varies from 2.5GY 2/2 to 2.5GY 4/4. Lower surface varies from 2.5GY 4/4 to 5GY 5/4. Midvein color 10Y 8/4 to 2.5GY 8/4.

Flower buds:

Size.—Large. Average length 16.5 mm. Average diameter 10.4 mm.

Hardiness.—Hardy with respect to California winters.

Density.—Medium dense.

Form.—Conical, becoming elongated just before opening.

Pedicel.—Average length 4.2 mm. Average width 1.2 mm. Surface-glabrous. Color varies from 5GY 5/8 to 5GY 6/6.

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

Flowers:

Blooming period.—Date of First Bloom Feb. 23, 2023. Date of Petal Fall Mar. 5, 2023, varies slightly with climatic conditions.

Size.—Large. Average height 21.8 mm. Average diameter 46.8 mm.

Petals.—Normally five, alternately arranged to sepals. Size — large. Average length 23.9 mm. Average width 21.6 mm. Petal apex — rounded to ovate. Petal base — truncate. Form — obovate. Arrangement — overlapping. Margin — sinuate. Color varies from 7.5RP 8/4 to 7.5RP 9/2, fades with age of flower.

Sepals.—Normally five, alternately arranged to petals. Size — large. Average length 7.1 mm. Average width 6.3 mm. Sepal apex — ovate to triangular. Shape — ovate. Margin — entire. Surface — upper surface glabrous, lower surface pubescent. Color — upper surface varies from 5GY 5/6 to 5R 3/6. Lower surface varies from 5R 2/4 to 5R 2/6.

Stamens.—Average number per flower 41. Average filament length 16.2 mm. On average, the stamens are below the height of the petals. Filament color varies from N 9.5/(white) to 5RP 6/8. Anther color varies from 7.5R 3/12 to 5Y 8/8.

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

Pistil.—Number — normally one. Average length 19.6 mm. Position of stigma an average of 1.7 mm below anthers. Surface — pubescent. Color varies from 7.Y 8.5/6 to 10Y 8/6.

Fragrance.—Slight aroma.

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

Pedical.—Average length 4.3 mm. Average width 1.3 mm. Color varies from 2.5GY 5/8 to 2.5GY 6/8.

Number flowers per flower bud.—One.

Fruit:

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

Date of first picking.—Aug. 2, 2023.

Date of last picking.—Aug. 12, 2023, varies slightly with climatic conditions.

Size.—Large. Average diameter axially 83.2 mm. Average transversely in suture plane 86.5 mm. Average weight 336.7 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.—Slightly lipped.

Apex.—Very slight tip.

Base.—Slightly retuse.

Stem cavity.—Rounded to slightly elongated in suture plane. Average depth 11.8 mm. Average diameter 10.7 mm.

Stem:

Size.—Small to medium. Average length 9.8 mm. Average diameter 3.9 mm.

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

Flesh:

Ripens.—Evenly.

Texture.—Firm, meaty, crisp.

Fibers.—Few, small, tender.

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

Aroma.—Slight.

Amygdalin.—Undetected.

Eating quality.—Good.

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

Juice.—Moderate amount, enhances flavor.

Acidity.—Not available.

Brix.—Average Brix 13.0°, varies slightly with amount of fruit per tree and climatic conditions.

Color.—Varies from 10YR 8/8 to 5R 3/10.

Pit cavity.—Average length 43.8 mm. Average width 32.6 mm. Average depth 16.7 mm. Color varies from 7.5R 2/6 to 5R 3/10.

Skin:

Thickness.—Medium.

Surface.—Very slightly waffled.

Pubescence.—Moderate amount, short in length.

Tendency to crack.—None.

Color.—Ground color varies from 2.5Y 7/8 to 2.5Y 8/6. Overspread with 7.5R 3/10 to 5R 3/6.

Tenacity.—Tenacious to the flesh.

Astringency.—Slight to none.

5 **Stone:**

Type.—Clingstone, weak adherence to flesh.

Size.—Large. Average length 40.8 mm. Average width 29.6 mm. Average thickness 27.4 mm.

Form.—Ovoid.

10 *Base*.—Flat.

Apex.—Pointed. Average length 2.5 mm.

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

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

Ridges.—Relatively smooth, narrow ridges extending from base toward apex.

Tendency to split.—None.

Color.—Varies from 7.5Y 3/6 to 10R 3/6 when dry.

20 **Kernel:**

Size.—Large. Average length 22.7 mm. Average width 13.1 mm. Average depth 6.5 mm.

Form.—Ovate.

Viability.—Viable, complete embryo development.

Skin color.—Varies from 2.5Y 8/10 to 2.5Y 8/8.

25 **Use:**

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.

30 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, California, 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.

45 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, California.

50 The invention claimed is:

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

