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Gerdts et al.

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(54) **NECTARINE TREE NAMED
‘BURNECTELEVEN’**

(50) Latin Name: *Prunus persica*
Varietal Denomination: **Burnecteleven sp.**

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patent is extended or adjusted under 35
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(57) **ABSTRACT**

A new and distinct variety of nectarine tree (*Prunus persica* sub species *nuciperisica*), denominated varietally as ‘Burnecteleven’, and which produces an attractively colored yellow-fleshed, clingstone nectarine which is mature for harvesting and shipment approximately July 24 to August 8 under 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 nectarine tree, *Prunus persica* (subspecies *nuciperisica*), which has been denominated varietally as ‘Burnecteleven’.

ORIGIN

The present variety of nectarine 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 ‘Burnecteleven’ 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 ‘Summer Bright’ nectarine tree (U.S. Plant Pat. No. 7,049) which was used as the pollen parent; and the yellow fleshed, clingstone peach tree, ‘A40.005’, (unpatented) which was used as the seed parent. One seedling, which is the present variety, exhibited especially desirable characteristics and was designated as ‘C3.101’. This promising variety was marked for subsequent observation. After the 1996 growing season, this new nectarine variety was selected for advanced evaluation and repropagation.

ASEXUAL REPRODUCTION

Asexual reproduction of the new and distinct variety of nectarine 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

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characteristics of the original tree and its fruit were established and appear to be transmitted through succeeding asexual propagations.

SUMMARY OF THE VARIETY

‘Burnecteleven’ is a new and distinct variety of nectarine tree, which is of large size, and which has vigorous growth. The new variety is also a regular and productive bearer of relatively large, firm, yellow fleshed, clingstone fruit which have good flavor and eating quality. This new and novel tree has a medium chilling requirement of approximately 750 hours. The new tree also produces relatively uniformly sized fruit which are distributed throughout the tree, and which has a high degree of red skin coloration, and a firm flesh. The fruit of the new variety also appears to have good handling and shipping qualities. Still further, the ‘Burnecteleven’ Nectarine tree bears fruit that are ripe for commercial harvesting and shipment on approximately July 24 to August 8. In relative comparison with the ‘Summer Bright’ nectarine tree, which is the pollen parent, the new variety ripens about 10 days later than the variety ‘Summer Bright’ at the same geographical location.

BRIEF DESCRIPTION OF THE DRAWING

The accompanying drawing, which is provided, is a color photograph of the present variety. The photograph depicts two whole mature fruit, and one fruit dissected in substantially the suture plane to expose the flesh and the pit. Additionally the photograph displays a characteristic twig bearing typical leaves, and a pit with the flesh removed. The external coloration of the fruit is shown 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 hereinafter.

DETAILED DESCRIPTION

Referring more specifically to the pomological details of this new and distinct variety of nectarine tree, the following has been observed during the sixth fruiting season under the ecological conditions prevailing at orchards 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 as compared to other common commercial nectarine cultivars ripening in the middle to late season of maturity. The tree of the present variety was pruned to a height of approximately 290.0 cm to 320.0 cm at maturity.

Vigor.—Moderately vigorous. The present variety grew from about 125.0 cm to 142.0 cm in height during the first growing season. The variety was pruned to a height of approximately 134.6 cm in the first dormant season and primary scaffolds were then 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 develop the remaining fruit into the desired market size. The number of fruit set varies with climatic conditions and cultural practices during the bloom period and is therefore not distinctive of the variety.

Bearer.—Regular. Fruit set has been heavy and thinning was necessary during the past 6 years.

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

Density.—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 750 hours below 7.0 degrees C. The variety appears to be hardy under typical central San Joaquin Valley climatic conditions.

Trunk:

Diameter.—Approximately 17.8 cm in diameter when measured at a distance of approximately 15.24 cm above the soil level, at the end of the sixth 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 about 5.0 millimeters in width, and from about 1.0 to about 2.0 millimeters in height.

Lenticel color.—Considered an orange brown, (RHS Greyed Orange Group N167 C).

Bark coloration.—Variable, but it is generally considered to be dark brown, (RHS Greyed Orange Group 177 A).

Branches:

Size.—Considered medium for the variety.

Diameter.—Average as compared to other varieties. The branches have a diameter of about 8.9 centimeters when measured during the sixth year after grafting.

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

Crotch angles.—Primary branches are considered variable between about 44 to about 54 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 2.3 to about 2.7 cm.

Color of mature branches.—Medium brown, (RHS Greyed Orange 176 A).

Current seasons shoots.—Color — Light green, (RHS Yellow Green Group N144 D). The color of new shoot tips is considered a bright and shiny green (RHS Yellow Green Group 144 C).

Leaves:

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

Leaf length.—Approximately 157.0 to about 174.0 millimeters.

Leaf width.—Approximately 32.0 to about 44.0 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 141 B).

Leaf texture.—Glabrous.

Lower surface.—Medium green, (RHS Yellow Green Group 144 A).

Leaf venation.—Pinnately veined.

Mid-vein.—Color — Light yellow green, (RHS Yellow Green Group N144 C).

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

Leaf petioles.—Size — Considered medium short. Length — About 7.0 to about 11.5 mm. Diameter — About 1.5 to about 2.5 mm. Color — Pale green, (RHS Yellow Green Group N144 A).

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 relative to the petiole margin. Color — Grey brown, (RHS Grey Brown Group 199 B).

Leaf stipules.—Size — Medium 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 N138 A) when young but graduating to a brown color, (RHS Greyed Orange group N167 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 5.0 millimeters wide; and about 10.0 millimeters long; conic in form; and slightly appressed relative to the bearing shoot.

Flower buds.—Color — The bud scales are reddish-brown, (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 available.

Date of first bloom.—Mar. 3, 2002.

Blooming time.—Considered mid-season in comparison to other commercial nectarine cultivars grown in the central San Joaquin Valley. Date of full bloom was observed on Mar. 8, 2002. The date of first bloom varies slightly with climatic conditions and cultural practices.

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

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

Flower size.—Flower diameter at full bloom is approximately 33.0 to about 39.0 millimeters.

Bloom quantity.—Considered abundant.

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

Petal size.—Generally — Considered small for the species. Length — Approximately 12.0 to about 17.0 millimeters. Width — Approximately 9.0 to about 11.0 millimeters.

Petal form.—Broadly ovoid.

Petal count.—Nearly always 5.

Petal texture.—Glabrous.

Petal color.—Light pink when young, (RHS Red Purple Group N57B) and darkening with advancing senescence and exposure to sunlight to a medium to dark pink, (RHS Red Purple Group 58 C).

Fragrance.—Slight.

Petal claw.—Form — The claw is considered truncate, and has a small size when compared to other varieties. Length — Approximately 5.0 to about 7.0 millimeters. Width — Approximately 4.0 to about 6.0 millimeters.

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

Petal apex.—Generally — The petal apices generally appear entire, and without an apical groove.

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

Floral nectaries.—Color — A Dull orange red, (RHS Greyed Orange Group N172 C).

Calyx.—Surface Texture — Generally glabrous. Color — A dull purple, (approximately RHS Greyed Purple Group 187 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 Purple Group 183 A).

Anthers.—Generally — Average to below average in length. Color — Red to reddish-purple dorsally, (approximately RHS Greyed Purple Group 187 C).

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

Filaments.—Size — Variable in length, approximately 12.0 to about 16.0 millimeters. Color — Considered a very pale pink, (RHS Red Purple Group 62 D).

Pistil.—Number — Usually 1, rarely 2. Generally — Average in size. Length — Approximately 17.0 to about 19.0 millimeters including the ovary. Color — Considered a very pale green, (approximately RHS Yellow Green Group 154 D). Surface Texture — The variety has a long glabrous pistil.

Fruit:

Maturity when described.—Firm ripe condition (shipping ripe); Date of first picking — Jul. 24, 2002; and date of last picking — Aug. 11, 2002. The date of harvest varies slightly with the prevailing climatic conditions.

Size.—Generally — Considered large, and uniform.

Average cheek diameter.—Approximately 79.0 to about 83.0 millimeters.

Average axial diameter.—Approximately 73.0 to about 80.0 millimeters.

Typical weight.—Approximately 260.0 grams. This is highly dependent upon cultural practices and therefore is not distinctive of the variety.

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

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

Suture.—Color — The background color appears to be a yellow to golden yellow, (approximately RHS Orange Group 24 A), and occasionally having some red coloration, (approximately RHS Red Group 46 A).

Ventral surface.—Form — Slightly indented.

Apex.—Rounded.

Base.—Retuse.

Stem cavity.—Rounded, and considered relatively deep. Average depth of the stem cavity is about 1.65 cm. Average width is about 2.45 cm.

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

Color.—Blush Color — This red blush color is variable from a reddish orange, (approximately RHS Red Group 42 B) to a dark red, (approximately RHS Red Group 46 A). Blush color ranges from about 75% to about 95% of the fruit surface depending upon the sunlight exposure and the prevailing growing conditions. Ground Color — Yellow orange, (approximately RHS Orange Group 24 A).

Fruit stem.—Relatively long in length, approximately 7.0 to about 9.0 millimeters. Diameter — Approximately 2.0 to about 3.0 millimeters. Color — Pale yellow-green, (approximately RHS Greyed Orange Group 163 C).

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 14.0 degrees. This characteristic varies slightly with of number of fruit per tree; prevailing cultural practices, and the surrounding climatic conditions. Flesh Color — Pale yellow, (approximately RHS Yellow Orange Group 14 C). The flesh can also exhibit red flecks that increase in frequency and intensity closer to the pit, (approximately RHS Red Group 46A).

Stone:

Type.—Clingstone.

Size.—Considered medium to large for the new variety.

Length.—Average, about 29.5 to about 33.0 millimeters.

Width.—Average, about 24.0 to about 27.0 millimeters.

Diameter.—Average, about 18.0 to about 20.0 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. Generally one ridge is located on the lateral sides and is positioned just below the mid-point, apically is slightly exaggerated in prominence, the ridge extends in a looping fashion from the dorsal to the ventral edge as seen in the drawing. Ventral edge — Width — Considered medium, and having a dimension of approximately 3.0 to about 5.0 millimeters at the 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 a purple brown, (approximately RHS Greyed Orange Group 176A).

Tendency to split.—Very few splits have been noted.

Kernel.—Size — Kernel is considered medium to large.

Form — Considered ovoid. Pellicle — Texture —

Pubescence has not developed at fruit senescence.

Color — (RHS Greyed Orange Group 165 B).

Use.—The subject variety 'Burnecteleven' is considered to be a Nectarine tree of the middle to late season of maturity, and which produces fruit which are considered to be firm, attractively colored, and which are useful for both local and long distance shipping.

Keeping quality.—Excellent. Fruit has stored well up to 25 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 harvesting 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 of the new variety to any known plant and/or fruit diseases.

Although the new variety of nectarine 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 nectarine tree, what we claim is new and desire to secure by Plant Letters Patent is:

1. A new distinct variety of nectarine tree substantially as illustrated and described, and which is characterized principally as to novelty by producing an attractively colored yellow-fleshed, clingstone nectarine which is mature for harvesting and shipment approximately July 24 to August 8 under the ecological conditions prevailing in the San Joaquin Valley of Central California.

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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : PP 14,363 P2
DATED : December 9, 2003
INVENTOR(S) : Timothy J. Gerdts et al.

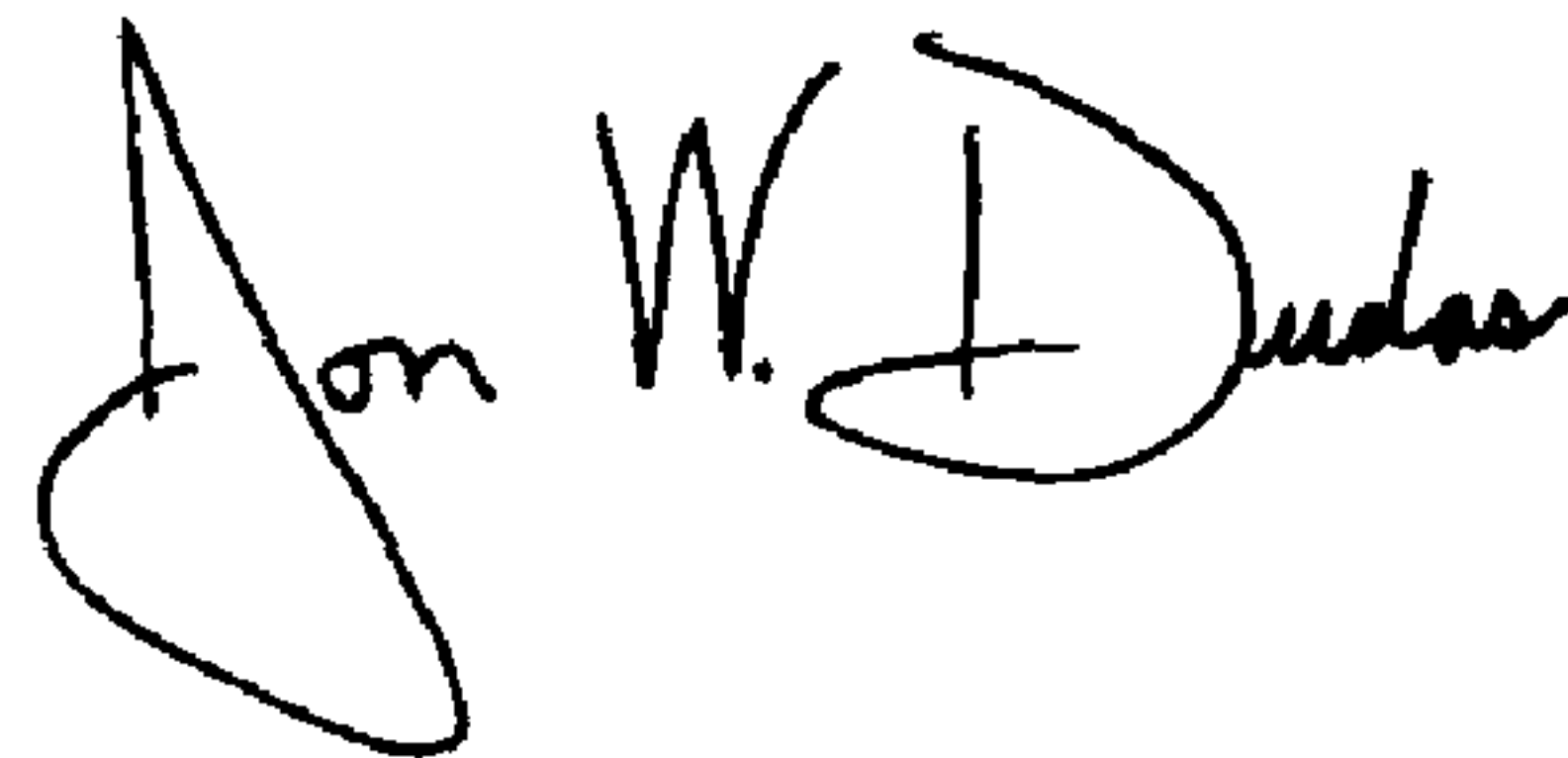
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Drawings,
Please replace the drawing sheet with the attached drawing sheet.

Signed and Sealed this

Fourteenth Day of September, 2004

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized, with a large, looped initial "J" and a cursive "Dudas".

JON W. DUDAS
Director of the United States Patent and Trademark Office

U.S. Patent

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