



(12) **United States Plant Patent**
Slaughter et al.

(10) **Patent No.:** **US PP34,319 P2**
(45) **Date of Patent:** **Jun. 14, 2022**

(54) **PEACH TREE NAMED ‘WAPEACHTWO’**

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

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **17/300,963**

(22) Filed: **Dec. 28, 2021**

(51) **Int. Cl.**
A01H 5/08 (2018.01)
A01H 6/74 (2018.01)

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

(58) **Field of Classification Search**
USPC **Plt./194, 197**
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP28,875 P2 1/2018 Gerdtts et al.

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(57) **ABSTRACT**

A new and distinct variety of peach tree (*Prunus persica*),
which is denominated varietally as ‘Wapeachtwo’, and
which produces an attractively colored yellow-fleshed, self-
fertile, clingstone peach which is mature for harvesting and
shipment about June 16 to June 25 under the ecological
conditions prevailing in the San Joaquin Valley of central
California.

1 Drawing Sheet

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Botanical designation: ‘*Prunus persica*’.
Varietal denomination: ‘Wapeachtwo’.

BACKGROUND OF THE NEW VARIETY

The present variety of peach tree resulted from an on-
going program of fruit tree breeding. The purpose of this
program is to improve the commercial quality of deciduous
fruit varieties and rootstocks by creating and releasing
promising selections of *Prunus* species. To this end, both
controlled and hybrid cross pollinations are made each year
to produce seedling populations from which improved prog-
enies are evaluated and selected.

The seedling ‘Wapeachtwo’ was originated by the breed-
ers and selected from a population of seedlings growing in
experimental orchards located near Fowler, Calif. The seed-
lings, grown on their own roots, were derived from planting
seed of a controlled cross. The cross involved both a female
and male parent that are unpatented selections. Fruit of this
cross at a mature stage were harvested, and the seeds were
extracted in August of 2009. After a period of stratification,
the seed was placed in the greenhouse by population and
then field planted for tree establishment and, ultimately, to
exhibit fruit for evaluation. One yellow-fleshed peach seed-
ling, which is the present variety, exhibited especially desir-
able characteristics and was then designated as ‘C10.099’.
This seedling was marked for subsequent observation. After
the 2013 fruiting season, the new variety of peach tree was
selected for advanced evaluation and repropagation.

ASEXUAL REPRODUCTION

Asexual reproduction of this new and distinct variety of
peach tree was accomplished by budding the new peach tree

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onto trees of ‘Nemaguard’ Rootstock (un-patented). This
was performed by the breeders in an experimental orchard
located near Fowler, Calif. Subsequent evaluations of these
asexually reproduced plants 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 these succeeding asexual propa-
gations.

SUMMARY OF VARIETY

‘Wapeachtwo’ is a new and distinct variety of peach tree,
which is considered of relatively large size, and which has
a vigorous growth characteristic. This new tree is also a
regular and productive bearer of relatively large, self-fertile,
firm, medium acid, yellow-fleshed, clingstone fruit which
have a very good flavor and eating qualities.

This new peach tree has a medium chilling requirement of
approximately 600 hours, and further produces relatively
uniformly sized fruit throughout the tree’s canopy. In addi-
tion to the foregoing, the fruit of the new peach also appears
to have good handling and shipping qualities. The
‘Wapeachtwo’ peach tree bears fruit which are typically ripe
for commercial harvesting and shipment on around June 16
to June 25 under the ecological conditions prevailing in the
San Joaquin Valley of central California. In relative com-
parison to the ‘Burpeachfourty’ peach tree (U.S. Plant Pat.
No. 28,875), which is the closest known variety, the current
variety of peach tree bears fruit that ripens about the same
time but is around 5.0 mm larger, is more productive, and
has a deeper and more extensive blush than the comparator
variety. In comparison to the seed parent, the current variety
is firmer, more uniform, and is smoother in shape. In

comparison to the unpatented pollen parent, the current variety ripens around 10 days earlier.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a color photograph of two mature fruit harvested from a fifth leaf year tree displaying both the apical and basal fruit aspects of the fruit. One mature fruit is bisected transversely through the sutural plane (see fruit on the right), which reveals the flesh color and the clingstone characteristic. The external coloration of the fruit as shown in the photograph is sufficiently matured for harvesting and shipment. The colors in these photographs 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, Fourth Edition, 2001) and descriptions provided, hereinafter.

NOT A COMMERCIAL WARRANTY

The following detailed description has been prepared to solely comply with the provisions of 35 U.S.C. § 112, and does not constitute a commercial warranty (either expressed or implied) that the present variety will in the future display all the botanical, pomological, or other characteristics as set forth hereinafter. Therefore, this disclosure may not be relied upon to support any future legal claims including, but not limited to, breach of warranty of merchantability, or fitness for any purpose, or non-infringement which is directed, in whole, or in part, to the present variety.

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 fifth fruiting season and 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 RHS Colour Chart (Royal Horticultural Society, Fourth Edition, 2001) provided by The Royal Horticultural Society of Great Britain. Common color names are also occasionally used.

TREE

Size: Generally considered medium to medium in its growth pattern as compared to other common commercial peach cultivars ripening in the same season of maturity. The tree of the present variety was pruned to a height of about 270.0 cm to about 310.0 cm at commercial maturity. Fruit size can vary with crop load and the conditions under which the fruit and tree are grown.

Width: About 275.0 cm.

Vigor: Considered moderately vigorous. The present peach tree variety grew from about 175.0 cm to about 180.0 cm in height during the first growing season. The new variety was pruned to a height of about 150.0 cm. during the first dormant season, and primary scaffolds were then selected for the desired tree structure.

Productivity: Productive. Fruit sets are generally considered heavy and typically requires fruit thinning when the new variety is grown in a suitable horticultural zone and under appropriate commercial nursery conditions. The fruit set

is spaced by thinning to develop the remaining fruit into the desired market-sized fruit. The number of the fruit set varies with the prevailing climatic conditions and the cultural practices employed.

5 Fruit bearing: Regular. Fruit set has been more than adequate during the previous years of observation, and thinning was necessary during the past 8 years on both the original seedling and on subsequent asexually reproduced trees. Tree form: Upright and pruned into a vase shape.

10 Density: Considered moderately dense.

Hardiness: The present tree was grown and evaluated in USDA Hardiness Zone 9. The calculated winter chilling requirements of the new tree is about 600 hours at a temperature below 7.0 degrees C.

15 The present variety appears to be hardy under typical central San Joaquin Valley climatic conditions.

TRUNK

20 Diameter: About 25.0 cm in diameter when measured at a distance of about 15.5 cm above the soil level. This measurement was taken at the beginning of the sixth growing season.

Bark texture: Considered moderately rough with folds of papery scarfskin being present. Since bark development and coloration change with advancing tree age, this characteristic varies with the tree vigor, age, and regional conditions. Therefore, this is not a dependable descriptor of the new variety.

30 Lenticels: Numerous flat, oval lenticels are present. The lenticels range in size from about 3.5 mm to about 4.5 mm in width, and between about 1.0 mm and about 2.0 mm in height. The development and size of the trunk lenticels can be influenced, to some degree, by the ambient growing conditions and are not necessarily a dependable characteristic of this variety. As trees of this variety mature, lenticels are present, but they are generally covered by increasing layers of cork (mature bark) and, therefore, become less apparent.

40 Lenticel color: Considered an Orange brown (RHS Greyed-Orange Group 167 B).

Bark coloration: Variable, but it is generally considered to be a greyed tan (RHS Brown Group 200 B). This bark description was taken from trees in their sixth leaf which have ruptured the scarf skin, and which also have developed bark furrowing which is much more typical of the bark of older trees. It should be noted that the coloration of the bark is influenced, and varies, as the smoother, darker background color approaches other bark features such as the lenticels and the initial fissures which form a feature of the scarf skin development.

BRANCHES

55 Size: Considered medium large for the variety.

Diameter: Average as compared to other peach varieties. The branches have a diameter of about 14.0 cm when measured during the fifth year after grafting.

60 Flowering shoot thickness: Average for the species. Generally, the most consistent flower bud development and, therefore, potential fruiting sites occur on shoots which are about 7.0 mm in diameter or larger, but generally less than about 15.0 mm in diameter at the time of bloom.

65 Surface texture: Average and appearing relatively smooth, but with more furrowing on wood which is several years old.

Crotch angles: Primary branches are considered variable and are usually growing at an angle of about 45 degrees when measured from a horizontal plane.

Current season shoots: Surface texture-Substantially glabrous.

Internode length: About 2.8 cm.

Color of mature branches: Grey, brown (RHS Greyed-Orange Group 177 D).

Current season's shoots: Color-Light green (RHS Yellow-Green Group 145 B). The color of new shoot tips is considered a light green (RHS Yellow-Green Group 145 A).

LEAVES

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

Leaf length: About 158.0 mm to about 167.0 mm.

Leaf width: About 32.0 mm to about 37.0 mm.

Leaf base-shape: The leaves generally exhibit equal marginal symmetry relative to the leaf longitudinal axis.

Leaf form: Lanceolate.

Leaf tip form: Acuminate.

Leaf color: Upper Leaf Surface-Medium green (about RHS Yellow-Green Group 148 A).

Leaf texture:

Upper leaf surface.—Glabrous.

Lower leaf surface.—Glabrous.

Leaf color: Lower Leaf Surface-Medium yellow green (about RHS Green Group 146 C).

Leaf venation: Pinnately veined.

Mid-vein: Color-Considered a pale green (about RHS Yellow-Green Group 145 C).

Leaf margins: Gently undulating.

Form.—Considered crenulate.

Uniformity.—Generally uniform.

Leaf petioles:

Form.—Considered canaliculated and having a more pronounced trough when viewed from the dorsal aspect. The petiole margin is considered rounded when viewed from the ventral aspect.

Size.—Considered medium large for the species.

Length.—About 12.0 mm to about 14.5 mm.

Diameter.—About 1.5 mm to about 2.0 mm.

Color.—A light green (about RHS Yellow-Green Group 145 B).

Texture.—Glabrous.

Strength.—Durable for species until senescence.

Leaf glands:

Size.—Considered relatively small for the species; about 1.0 mm in width; and about 1.5 mm in height.

Number.—Typically, one per marginal side. Occasionally, two glands per side are found.

Type.—Glands located at the base of the leaf are predominantly reniform in shape. An additional one to two, or occasionally more, gland primordia, which appear reniform and stalked, are often present at the basal margin of the leaf petiole.

Color.—Considered a yellowed green (approximately RHS Yellow-Green Group 152 B).

Leaf stipules:

Size.—Medium large for this variety.

Number.—Typically, 2 per leaf bud, and up to 6 per shoot tip.

Form.—Lanceolate in form and having a serrated marginal edge.

Color.—Green (approximately RHS Yellow-Green Group 145 A) when young, but graduating to a brown color (approximately RHS Greyed-Orange Group 165 A) with advancing senescence. The leaf stipules are generally considered to be early deciduous.

FLOWER BUDS

Hardiness: No winter injury (bud death) has been noted during the last several years of observation in the central San Joaquin Valley. The new variety of peach tree has not been intentionally subjected to drought, cold, or heat stress, and, therefore, this information is not available.

Flower bud: Size.

Length.—About 14.5 mm.

Diameter.—About 9.5 mm.

Surface texture.—Pubescent.

Orientation.—Considered appressed but appear less so as the blossoms near opening.

Bud scale color: Approximately RHS Greyed-Orange Group 175 A.

FLOWERS

Date of first bloom: Observed on Feb. 21, 2018.

Blooming time.—Considered average to slightly early mid-bloom in relative comparison to other commercial peach cultivars grown in the central San Joaquin Valley. The date of full bloom was observed on Feb. 28, 2018. The date of full bloom varies slightly with climatic conditions, and prevailing cultural practices.

Duration of bloom.—Approximately 8 or more days.

Flower class: Considered a perfect flower, complete and perigynous.

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

Flower size: Considered large. The flower diameter at full bloom is about 48.0 mm to about 54.0 mm.

Bloom quantity: Considered abundant.

Flower bud density: Generally considered dense.

Flower bud frequency.—Generally, two flower buds appear per node, but, occasionally, one flower bud per node is observed.

Petal size: Generally considered large for the species.

Petal length.—About 20.0 mm to about 23.0 mm.

Petal width.—About 17.0 mm to about 19.5 mm.

Petal form: Considered broadly ovate.

Petal count: Nearly always 5.

Petal texture:

Upper petal texture.—Very finely pubescent, satin like.

Lower petal texture.—Very finely pubescent, satin like.

Petal color: Considered a light pink at the popcorn stage (RHS Red-Purple Group 62 D).

Fragrance: Slight.

Petal claw:

Form.—The claw is considered ovate and is generally large.

Length.—About 15.0 mm.

Width.—About 13.0 mm.

Petal margins: Generally, slightly undulate.

Petal apex: Generally, exhibits a small notch at the apex.

Flower pedicel:

Length.—Considered medium of about 2.0 mm to about 3.5 mm.

Diameter.—About 2.0 mm.

Color.—A medium brown (approximately RHS Grey-Brown Group N199 D).

Strength.—Tenacious. Average for the species.

Texture.—Generally smooth.

Floral nectaries:

Color.—Considered a burnt orange (about RHS Greyed-Orange Group 163 A).

Calyx:

Surface texture.—Generally glabrous.

Color.—About RHS Greyed-Red Group 182 A.

Sepals:

Upper surface texture.—Moderately pubescent.

Lower surface texture.—Finely pubescent.

Number.—5 sepals.

Size.—Considered medium.

Sepal length.—About 6.0 mm to about 7.5 mm.

Sepal width.—About 5.0 mm to about 6.0 mm.

Sepal shape.—Generally obovate.

Sepal margin.—Considered smooth and entire.

Sepal color.—About RHS Greyed-Purple Group 187 B.

Anthers:

Generally.—Average in size.

Color.—Yellow when viewed dorsally and just prior to dehiscence (about RHS Yellow-Orange Group 20 A).

Position relative to stigma.—Generally, the stigma is superior to the anthers by about 1.0 mm to about 2.0 mm.

Pollen production: Pollen is abundant and has a yellow color (about RHS Yellow-Orange Group 17 D).

Fertility: Self-fertile.

Filaments:

Size.—About 14.0 mm to about 17.0 mm in length.

Color.—Considered white to a pinkish white (RHS White Group N155 D).

Pistil:

Number.—Usually one, and only rarely more than one.

Generally.—Considered medium in size.

Length.—About 18.0 mm to about 20.0 mm in length, including the ovary.

Color.—Considered a very pale green (about RHS Yellow-Green Group 150 D).

Surface texture.—The variety has a long pubescent pistil.

Position relative to petals.—At flower maturity the stamens grow to be superior to the petals.

FRUIT

Maturity when described: Firm ripe condition (shipping ripe).

Date of first picking: Approximately Jun. 16, 2021.

Date of last picking: Approximately Jun. 25, 2021. The date of harvest can vary with the prevailing climatic conditions, crop loads, and the current climatic and cultural practices.

Size: Generally-Considered medium large for the season of maturity.

Average cheek diameter: About 82.0 mm to about 90.0 mm.

Average axial diameter: About 82.0 mm to about 87.0 mm.

Typical weight: About 320.0 grams.

Fruit soluble solids. About 14.0 to about 16.5 Brix.

Fruit firmness. Fruit flesh pressures generally averaged 12.0 pounds at the time the fruit was analyzed.

Titrateable acidity: About 0.70 to about 0.77 at commercial harvest maturity.

Fruit form: Generally-Considered globose. The fruit is generally very uniform in symmetry.

Mucron tip: Can occasionally be observed.

Fruit suture: No stitching exists along the suture line.

Suture: Color-Generally, the fruit appears blushed to the same degree as the skin (about RHS Red Group 46 A).

Ventral surface: Form-Considered even and uniform in appearance when it is viewed from the lateral, sutural plane.

Apex: Shape-Rounded, with occasional mucron tip.

Base: Shape-Smooth.

Stem cavity: Generally-It extends in a rounded circular form which is generally considered uniform. The stem cavity is rounded but slightly extended toward the suture. The average depth of the stem cavity is about 9.0 mm to about 11.0 mm. The average width of the stem cavity is about 22.0 mm. The average length of the stem cavity, when measured in the sutural plane, is about 30.0 mm.

Fruit skin:

Thickness.—Considered medium in thickness and tenacious to the flesh.

Surface texture.—Pubescent.

Taste.—Non-astringent.

Tendency to crack.—Not observed in the previous years of observation and evaluation.

Fruit skin color:

Blush color.—Generally speaking, a red blush exists on much of the skin of the fruit (approximately RHS Red Group 46 A). The blush of the fruit typically covers approximately 80% to 90% of the fruit skin surface.

Ground color: A medium yellow (about RHS Yellow Group 12 B).

Fruit glossiness: Fruit skin is not considered to be glossy.

Fruit stem:

Size.—Medium in length, about 6.0 mm to about 9.0 mm.

Diameter.—About 2.0 mm to about 3.0 mm.

Color.—Pale yellow green (approximately RHS Yellow-Green Group N144 C).

Fruit flesh:

Ripening.—Considered even.

Texture.—Firm, juicy, and dense. Considered firm-melting in flesh classification.

Fibers.—Present but not prominent.

Aroma.—Present.

Eating quality.—Considered very good.

Flavor.—Considered balanced with sweetness and acidity.

Juice production.—Moderate.

Brix.—About 14.0 to about 16.5 degrees. This characteristic varies slightly with the number of fruits per tree, fruit position on the tree, the maturity of fruit when harvested, the prevailing cultural practices, and the ambient climatic conditions.

Acidity.—Considered medium. About 0.70 titrateable acidity at fruit harvest.

Flesh color.—It is considered yellow (about RHS Yellow-Orange Group 20 C). The present variety often exhibits red bleed, which radiates from about 4.0 to

about 12.0 mm from the exterior of the fruit surface.
About RHS Orange-Red Group N34 B.

STONE

Type: Considered a clingstone.

Size: It is generally considered to be medium for the species.

Length: Average, about 35.0 mm.

Width: Average, about 23.0 mm.

Diameter: Average, about 22.0 mm.

Form: Roughly ovoid.

Stone base: Shape-The stone is considered shortly attenuate.

Apex: Shape-The stone exhibits a small acute apex.

Stone surface:

Surface texture.—Considered irregularly furrowed toward the apex. Further, more pitting exists in the mid-portion of the stone (laterally) and is more common toward the base.

Ridges.—Ridging is generally more prominent and is usually oriented parallel and laterally relative at the ventral and dorsal margins.

Ventral edge.—The ventral edge is described as having adjoining ridges formed from each hemisphere. There are longitudinal grooves running alongside this joined ventral suture.

Dorsal edge.—Shape — Generally considered even. The folds of the surface ridges appearing on the external margins often end gently along the suture.

Stone color: The color of a mature, dry stone is generally considered a dull brown (approximately RHS Greyed-Orange Group 166 B).

Tendency to split: Splitting has rarely been noted.

Kernel:

Length.—About 16.0 mm to about 17.0 mm.

Width.—About 12.0 mm to about 14.0 mm.

Thickness.—about 5.0 mm to about 6.0 mm.

Size.—The kernel is considered medium in size.

Form.—Considered generally ovoid.

Kernel surface texture.—Kernel pellicle is shortly pubescent.

Color.—A tan (RHS Greyed-Orange Group 165 B).

Use: The present variety 'Wapeachtwo' is a peach tree of the early season of maturity, and which produces fruit which are firm, attractively colored, and which are useful for both local and long-distance shipping and consumption.

Keeping quality: Appears excellent. The fruit of the present variety has stored well for periods of up to 35 days after harvest at 1.0 degree Celsius.

Shipping quality: Good. The fruit of the new peach tree variety showed minimal bruising of the flesh or skin damage after being subjected to normal harvesting and packing procedures.

Resistance to insects and disease: No susceptibilities were noted. The present variety has not been intentionally tested to expose or detect any susceptibilities or resistances to any known plant, fruit diseases, insect, frost, winter injury, or other environmental factors.

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, variations of the usual magnitude and characteristics incident to changes in growing conditions, fertilization, nutrition, pruning, pest control, frost, climatic variables, 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, self-fertile clingstone peach which is mature for harvesting and shipment about June 16 to June 25 under the ecological conditions prevailing in the San Joaquin Valley of central California.

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