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Maillard et al.

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

(50) Latin Name: ***Prunus persica* (L.) Batsch**
Varietal Denomination: **FLATBOOM**

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See application file for complete search history.

(56) **References Cited**

PUBLICATIONS

Upov Pluto Plant Variety Database 20200526 retrieved on May 27, 2020, retrieved from the Internet at https://www.upov.int/pluto/en/index.jsp, one page. (Year: 2020).*

* cited by examiner

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(57) **ABSTRACT**

A new and distinct variety of white flat peach tree denominated 'FLATBOOM' which have fruits with high eating quality and very long shelf life without alteration before and after harvesting, with a semi-sweet cream white flesh which becomes pink at maturity time, and has a red pigmentation into and around the stone cavity, and an attractive skin with a very high percentage of luminous purple red blush on skin surface, on a red background.

5 Drawing Sheets

Botanical classification: *Prunus persica* (L.) Batsch.

Variety denomination: 'FLATBOOM'.

This application claims priority of Community plant variety right No. 2018/3135 filed on Nov. 29, 2018 (Nov. 29, 2018) which is hereby incorporated by reference in its entirety.

The new variety named 'FLATBOOM' is also known as 02.12.430.16 PBPL or ASF16245. Indeed, before giving a name to a new and distinct variety of fruit tree, a provisional reference is assigned, considering the references of a tree in orchard. This provisional reference is constituted firstly with the number of the parcel on which the tree has grown, then the number of the line, the tree number and finally the year of selection. Then before being named 'FLATBOOM', the provisional reference of this white flat peach tree variety was 02.12.430.16, corresponding to the tree 430 located in line 12 of the parcel 02 and selected during the year 2016. The letters "PBPL" are related to the first letters of the type of tree in French (PBPL for "Pêche Blanche PLate", that means "white flat peach"). Once the hybrid selected, the breeder assigned a clone reference that begins with the letters "ASF" followed by the year of selection and a number corresponding to the maturity order. The final name is only assigned once the application has been filed and the name approved after its publication in the official bulletin. For the variety 'FLATBOOM', the clone reference was 'ASF16245'.

BACKGROUND OF THE NEW VARIETY

The present invention relates to a new and distinct variety of white flat peach tree, *Prunus persica* (L.) Batsch, which has been given the variety denomination 'FLATBOOM'.

This new tree produces fruits with a long shelf life without alteration both on the tree after growth completion and after harvesting, very good eating quality, semi-clingstone cream to pink (at maturity time) flesh fruits, generally with a red pigmentation around and into the stone cavity, for fresh market in July in the Pyrénées-Orientales department, France.

ORIGIN OF THE VARIETY

The 'FLATBOOM' white flat peach tree originated from a cultivated area of the south of France, in the Pyrénées-Orientales department, where it was tested.

This place is under a Mediterranean climate (a temperate area), on the Mediterranean coastline. Winters are gentle and summers warm and dry. The amount of days with temperatures below 7° Celsius can vary between 600 and 1200 hours per year. The place is sunny, with 2400 to 2800 hours of sunny days per year on average. The prevailing wind is called 'Tramontane': it dries the air, clears the sky from clouds, but its intensity can be strong and affect the harvest,

fruit quantity and/or quality. Marine moisture does not affect the place. Precipitations are irregular through the year and from one year to another. The amount of rainy days does not exceed 80 days per year and are mostly found in Spring and Autumn. In May and October, very intense precipitations occasionally happen. Summer is dry with a few thunderstorms.

The 'FLATBOOM' variety results from pollinated cross between the white flat peach variety named 'FLATELSE' (not patented) which was used as the seed parent, or female parent, and the white nectarine variety named 'NECTARRUBY' (U.S. Plant Pat. No. 23,421) which was used as the pollen parent, or male parent.

The 'FLATBOOM' variety was obtained by hybridizing and propagated by grafting on a 'INRA GF677' (non-patented) rootstock trees. It has been determined to have unique tree and fruit characteristics making it worthy for commercial fresh fruit production. There are no known effects of the standard rootstock trees set forth above on the scion cultivar. Asexually propagated plants remained true to the original tree and all characteristics of the tree and the fruit were transmitted. The plant was reproduced asexually by us in Les Régalines, Route d'Alenya, La Prade de Mousseillous, 66200 ELNE, Pyrénées-Orientales, France. More particularly, the plant was reproduced by grafting. Every known type of grafting adapted to the peach tree may be performed on the new tree. Especially, the type of grafting will depend on the grafting period and the propagation mode which is used by the nursery owner. Thus, the grafting period may be micrografting at any moment of the year if the grafting is performed in greenhouse, dormant eye shield budding in August or September, growing eye shield budding in June or July, for example.

SUMMARY OF THE VARIETY

The new and distinct variety 'FLATBOOM' white flat peach tree blooms at the end of February near Elne in the Pyrénées-Orientales department, France. The blooming period is considered medium. However, it was observed that its date of blooming seems to be highly dependant on climatic conditions.

The first fruit of 'FLATBOOM' ripens generally medium in the season, namely during July. More particularly, ripening time usually begins during the first two weeks of July. However, it was observed that its date of maturity seems to be highly dependant on climatic conditions.

DESCRIPTION OF THE DRAWINGS

In the accompanying drawing, which are as nearly true as it is reasonably possible to make in a color illustration of this type:

FIG. **1** is a color photograph showing a tree of the new variety 'FLATBOOM' in orchard, bearing fruits.

FIG. **2** is a color photograph which depicts the flower buds at different development stages, and the reverse and side views of the flower and the reproductive organs with petals removed, of the new variety 'FLATBOOM' also named '02.12.430.16 PBPL ASF16245'.

FIG. **3** is a color photograph which shows the lower part of two fruits at maturity time and a third fruit which has been cut in half with the pit being left in one of the halves.

FIG. **4** is a color photograph which shows the upper and lower sides of leaves and different views of three typical specimens of the fruit of the new variety 'FLATBOOM' also named '02.12.430.16 PBPL ASF16245' at ripening time, one fruit having been cut in half with the pit being left in one of the halves for depicting leaves, fruit flesh, pit and pit cavity of the new variety.

FIG. **5** is a color photograph showing a close view of two fruits of the new variety on tree in orchard.

FIG. **6** is a color photograph showing a close view of some fruits of the new variety on tree in orchard.

FIG. **7** is a color photograph showing a close view of two fruits of the new variety on tree in orchard.

FIG. **8** is a color photograph that shows a close view of typical specimens of the fruits of the new variety at maturity time.

FIG. **9** is a color photograph that shows different views of the stone of the new variety, and the kernel of the stone of the new variety 'FLATBOOM' also named '02.12.430.16 PBPL'.

The views of trees, flowers, leaves and fruits have been photographed in their third growing season (second year of production).

Due to chemical development, processing and printing, the flowers, stones and fruits depicted in these photographs may or may not be accurate when compared to the actual botanical specimen.

DETAILED BOTANICAL DESCRIPTION

The trees, flowers, and fruits may vary in slight detail due to variations in soil type, cultural practices, and climatic condition. The potential for commercial production of fresh fruits by 'FLATBOOM' is high, due to fruit very long shelf life without alteration after harvesting.

Trees are medium vigorous and large stature half-standing in a semi-flared out aspect. The anthocyanic coloration of flowering shoot is present excluding brushwood side away from sun. The time of beginning of flowering is considered medium; flowering begins at the end of February. The type of flower is showy (rosette) with small to medium petal size. Petals are pink. Leaf glands are present and reniform. The fruit flesh is cream and the flesh color evolves to become pink at complete maturity. The fruit flesh usually shows a red pigmentation into the stone cavity and radiating around the stone cavity. The fruit skin is medium thick, with a luminous purple red blush on a red background. The stone is semi-clingstone and its size is small to medium. Fruit taste is semi-sweet, very aromatic and with a high level of sugars.

Compared to 'FLATBEAUTI' white flat peach variety (U.S. Plant Pat. No. 23,197), the fruits of 'FLATBOOM' usually ripen during the same period. However, the fruits of the new variety 'FLATBOOM' are bigger than those of the 'FLATBEAUTI' variety. The pistil cavity is considered very well closed in 'FLATBOOM' fruits, and only well closed for 'FLATBEAUTI' variety. The variety 'FLATBOOM' is considered to be non-sensitive to pests and diseases, whereas the variety 'FLATBEAUTI' is a little sensitive to pests and diseases. The fruit skin of the new variety 'FLATBOOM' is darker, namely purple red, than the fruit skin of the similar variety, which is lighter and colored with a very luminous pink red. The fruits of the new variety 'FLATBOOM' show a cream flesh, which becomes pink at complete maturity, whereas the fruit flesh of 'FLATBEAUTI' is cream white.

Compared to its seed parent, i.e. the white flat peach variety named 'FLATELSE' (not patented) as set forth above, the fruits of the new variety named 'FLATBOOM' usually ripen 5 to 10 days earlier, depending on the weather

conditions of the year. Consequently, this 5 to 10 days gap between 'FLATBOOM' and 'FLATELSE' ripening time leads to an interesting continuity in the harvesting of two white flat peach varieties having similar characteristics regarding their taste and appearance. However, 'FLATELSE' shows a white cream flesh fruit at ripening time, whereas the fruit flesh of 'FLATBOOM' is considered cream to pink at ripening time.

DETAILED DESCRIPTION

Referring more specifically to the pomological details of this new and distinct variety of white flat peach tree, the following was observed on trees in their third growing season (second year of production) under the ecological conditions prevailing at the orchards located near the town of Elne, Pyrénées-Orientales departement, France. All observations have been done on rootstock cultivars. Used rootstocks were 'INRA GF677' (non-patented) trees. 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 large. The tree size the first year was approximately 200 to 280 cm. The tree was pruned during each following dormant season to a height of approximately 250 cm. Current season shoots growth could reach 80 cm. The tree size from the second year (second and next years) reached a final height of 330 cm including current season shoots length. The tree size is consistently reduced to 250 cm the next years.

Spread.—Approximately 100 cm with a cylindrical shape. The whole orchard was oriented to a central leader organization, with tree lines spaced of 4.0 meters and trees spaced of 1.0 meter in a same tree line. As a result, tree spread was about 100 cm and the orchard contained 2500 trees by hectare.

Vigor.—Considered medium.

Productivity.—Considered good to very good, and regular. 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 cultural practices employed during the bloom period and is therefore not distinctive of the present variety. A reduce vegetation, obtained with pruning or green pruning, approximately 1 month or 1 month ½ before harvesting flat fruits, significantly promotes fruit qualities, especially growth, color and firmness. Moreover, contamination risks due to *Monilia* or rot are significantly reduced. 'FLATBOOM' variety is not much sensitive to cracking of pistil cavity, to cork formation into peduncle cavity or to *Monilia* (*Monilia fructicola*).

Bearer.—Very regular. The fruit distribution is considered homogenous on mixed branches and spurs having more than 1 year. Thinning of 2 fruits out of 3 was necessary for the tree valorisation. Thinning was necessary every year during the years of observation.

Form.—The 'FLATBOOM' variety has naturally a semi-flared shape.

Foliage density.—Considered dense.

Hardiness.—The present tree was grown and evaluated in France. The variety appears to be hardy under the central Pyrénées-Orientales departement typical climatic conditions. Experimentations on the same orchard in Elne, Pyrénées-Orienteles department, with winter chilling requirement below 7.2° C. comprised between 700 hours and 1200 hours according to the specificities of the year, namely 1031 hours in 2012-2013, 777 hours in 2013-2014, 893 hours in 2014-2015, 718 hours in 2015-2016, 825 hours in 2016-2017, 1017 hours in 2017-2018 and 844 hours in 2018-2019 showed a good behaviour of the trees in all cases. Traditionally, flat fruits are more sensitive to critical low temperatures and to climatic variations, because of the flower morphology in which the ovule is less protected than in the classical round fruits. Thus, areas not much exposed to frost are recommended for trees growth. However, 'FLATBOOM' trees seem to be very resistant to critical frosty weather.

Trunk:

Diameter.—Approximately 36.0 to 40.0 millimeters in diameter when measured at a distance of approximately 20.0 centimeters above the soil level from trees on second leaf (or first year of production)

Bark texture.—Considered rough, with lenticels.

Lenticels.—Numerous lenticels are present. The number of lenticels reaches 3 lenticels per cm^2.The lenticels range in size of approximately 3.0 to 4.5 millimeters in width, and about 1.5 to 2.0 millimeters in height.

Lenticel color.—The lenticels show a light orange color (RHS Greyed Orange 164 B or RHS Greyed Orange 164 C).

Bark coloration.—The bark has a brown (RHS Brown N200 B) to grey color (RHS Grey 201 A) darker than the lenticels color.

Branches:

Size.—The branches are pruned to approximately 1.0 meter in length.

Diameter.—Average as compared to other peach varieties. The current season shoots have a diameter of approximately 4.0 to 6.0 millimeters, and mature branches have a diameter of approximately 7.0 to 9.0 millimeters.

Surface texture.—Smooth for current season shoots and rough, with lenticels, for mature branches, wood which is several years old has no furrowed appearance.

Crotch angles.—Primary branches are considered variable, but the crotch angles are generally 75 degrees from the horizontal axis for current season shoots and 70° degrees from the horizontal axis for mature branches. This particular characteristic is not considered distinctive of the variety, however.

Current season shoots.—

Internode length.—Generally 14.0 to 19.0 millimeters.

Color.—The color of new shoot tips is considered light green (RHS Yellow Green 145 A) on lower part of new shoot tips, whereas the upper part is darker and colored in purple (RHS Greyed Red 181 A or RHS Greyed Red 181 B), depending on the level on the tip and the sunlight exposure.

Mature branches.—

Internode length.—Generally 15.0 to 20.0 millimeters.

Color of mature branches.—Brown (RHS Grey Brown N 199 B or RHS Grey Brown N 199 C).

Lenticels.—Numerous lenticels are present on mature branches. The number of lenticels reaches 5 lenticels per cm^2. The size of lenticels is considered small. The lenticels range in size from approximately 0.5 millimeter in width, and about 0.5 millimeters in height. The lenticel shape is round with a diameter of approximately 0.5 millimeter.

Lenticel color.—The lenticels on mature branches have a beige color (RHS Greyed Orange 164 C or RHS Greyed Orange 164 D).

Leaves:

Size.—Considered medium to large for the species. The ratio leaf length/leaf width is 4.060.

Leaf length.—The medium length is about 164.67 millimeters with leaf petiole.

Leaf width.—The medium width is 40.56 millimeters.

Leaf form (in cross section).—Concave.

Leaf form.—Lanceolate.

Leaf base shape.—Round.

Leaf tip form.—Caudate.

Leaf thickness.—Medium.

Leaf color.—

Upper leaf surface.—Yellow Green (RHS Yellow Green 147 A).

Lower surface.—A slightly lighter green (RHS Yellow Green 146 A or RHS Yellow Green 146 B) than the upper leaf surface color.

Leaf texture.—Smooth and glabrous on both upper and lower surfaces of the leaf.

Leaf venation.—Pinnately veined.

Mid-vein.—

Color.—Light green, almost cream white (RHS Yellow Green 145 C). The color may evolve with maturity.

Width.—Approximately 1.5 millimeters.

Secondary veins.—

Color.—Light green (RHS Yellow Green 145 B). Mid-vein and secondary veins are embossed on lower surface of the leaves but are apparent on upper surface too.

Red mid-vein on the lower leaf surface.—Absent.

Leaf margins.—Slightly undulating.

Leaf margin form.—Leaf margins are considered crenate.

Uniformity.—Leaves are isolated or grouped by 2 or 3. In this last case, one leaf of normal size is found with one or two smaller leaves (at least 50% smaller).

Leaf petioles.—

Size.—Considered medium.

Length.—About 6.0 to about 9.0 millimeters.

Diameter.—About 1.5 to 2.0 millimeters.

Shape.—Grooved.

Petiole color.—

Upper petiole surface.—Green (RHS Yellow Green 145 A).

Lower surface.—A slightly lighter green (RHS Yellow Green 145 B) than the upper petiole surface color.

Leaf glands.—

Size.—Considered medium. Their length is about 1.20 millimeter and their width is about 1.0 millimeter.

Number.—Generally 2 glands per leaf.

Type.—Reniform.

Margins.—Smooth.

Position.—Alternate on the upper part of petiole.

Color.—On young leaves, leaf glands color is considered a light green (RHS Yellow Green 145 B or RHS Yellow Green 145 C). On older leaves, leaf glands color turns to a brown (RHS Brown 200 B) color.

Leaf stipules.—

Generally.—No leaf stipules were observed. But as seen in the characteristic relative to the leaves uniformity, it is possible to find leaves by groups of 2 or 3, with a normal-size leaf and smaller ones.

Presence and intensity of flowering shoot anthocyanin coloration.—A greyed purple color (RHS Greyed Purple 184 B) is present on the upper part, i.e the surface which is exposed to the sun, of the shoots.

Time of beginning of leaf bud burst.—Considered medium.

Flowers:

Flower buds.—

Generally.—At pre-floral stage of development, the floral buds are round shaped. Their form is evolving until blooming, with variable dimensions. Just before blooming, floral buds are approximately 8.0 to 10.0 millimeters wide and approximately 13.0 to 19.0 millimeters long. The floral buds show a homogenous distribution on the trees.

Color.—This characteristic is dependent upon the proximity to bloom. At pre-floral stage of development, the bottom of the flower's buds, or calyx, or flower receptacle, is of purple color (RHS Greyed Purple 187 A or RHS Greyed Purple 187 B) on its outer face. The inner face of the flower receptacle is orange yellow (RHS Yellow Orange 23 A). The corolla, formed by the petals, is generally of pink color (RHS Red Purple 62 A or RHS Red Purple 62 B) on both faces. Petals color shows an evolution until the end of flowering.

Hardiness.—The buds are considered hardy under typical central Pyrénées-Orientales departement climatic conditions. No winter injury was noted during the last several years of evaluation in the central Pyrénées-Orientales departement, with winter temperatures as low as −10 degrees Celsius in January. The current variety has not been intentionally subjected to drought or heat stress, but the variety showed a very good resistance in orchard to temperatures up to 42 degrees Celsius with an average temperature between 28 and 30 degrees Celsius during 3 weeks in summer.

Date of bloom.—The blooming time generally begins at the end of February or early in March. The first bloom was observed on Feb. 26, 2017.

Blooming time.—Considered medium in relative comparison to other commercial peach cultivars grown in the Pyrénées-Orientales departement, France. The date of full bloom is observed generally at the middle of the blooming period. The date of bloom varies slightly with climatic conditions and cultural practices. Thus, the full bloom was observed in 2017, from February 26th until March 8th, then February 19th until Mar. 4, 2018.

Duration of bloom.—Medium, approximately between 11 to 14 days. This characteristic varies slightly with the prevailing climatic conditions.

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

Flower size.—Considered medium. Flower diameter at full bloom is approximately 32.0 to 34.0 millimeters.

Bloom quantity.—Considered medium, approximately between 40 and 45 flowers per meter, with a high rate of fruit set.

Flower bud frequency.—Generally 2 flower buds appear per node, occasionally 1.

Petal size.—

Generally.—Considered small to medium.

Length.—Generally between 15.0 and 16.0 millimeters.

Width.—Generally between 14.0 and 15.0 millimeters.

Petal form.—Round-shaped.

Petal count.—Sometimes more than 5.

Petal arrangement.—Overlapping.

Petal texture.—Smooth on both upper and lower surfaces of the petal.

Petal color.—At the stage F of blooming, when the flower is fully opened, both surfaces of the petal are colored with a pink (RHS Red Purple 62 B) color when young, becoming slightly darker until the end of blooming. Stage F of blooming corresponds to the stage of flowering where the flower is fully opened. Petal color may show an evolution during the flowering, from the pre-floral stage we previously described, until the end of flowering.

Fragrance.—Moderate.

Petal claw.—

Form.—The claw is considered to have a narrow form.

Length.—About 1.25 to 1.5 millimeters.

Width.—About 1.5 millimeters at the base.

Color.—The petal claw usually shows a pink color darker than the petal color (RHS Red Purple 59 C).

Petal margins.—Generally considered slightly undulating.

Petal apex.—

Generally.—The petal apices are generally shaped as a wide dome.

Flower pedicel.—

Length.—Considered medium and having an average length of approximately 3.0 to 4.0 millimeters.

Diameter.—Considered average, approximately 1.0 to 1.5 millimeters.

Color.—Green (RHS Yellow Green 144 A).

Calyx.—

Internal surface texture.—Smooth.

Color.—At the stage F of blooming, when the flower is opened, the inner surface of the calyx, namely the flower receptacle, is yellow orange (RHS Yellow Orange 23 A). The outer surface of the calyx is considered of purple color (RHS Greyed Purple 187 A or RHS Greyed Purple 187 B). Stage F of blooming corresponds to the stage of flowering where the flower is fully opened. Calyx color, similarly to the petal color, may show an evolution during the flowering, from the pre-floral stage we previously described, until the end of flowering.

Sepals.—

Sepal count.—Usually 5 sepals, sometimes 6.

Surface texture.—The outer surface has a short, fine pubescent texture.

Margins.—Smooth.

Size.—Medium.

Length.—Approximately 4.0 to 5.0 millimeters.

Width.—Approximately 4.0 to 5.0 millimeters.

Form.—Conic and round at the top.

Color.—The upper surface of the sepals shows a purple color (RHS Greyed Purple 187 A or RHS Greyed Purple 187 B) whereas the lower surface of sepals is considered greenish (RHS Yellow Green 152 A).

Anthers.—

Generally.—Medium in length.

Shape.—Cordate

Color.—Depending on the maturity stage, anthers are colored with a red (RHS Red 53 A) to a yellow color (RHS Yellow Orange 20 A).

Pollen production.—Pollen is abundant and has a yellow color (RHS Yellow 11A) which may evolve with maturity. The present variety is considered autofertile (self-pollinating).

Pistil.—

Number.—Usually 1.

Generally.—Average in size. The pistil is positioned below the stamens.

Length.—Approximately 12.0 to 14.0 millimeters including the ovary. Generally smaller than filaments in length when considered without the ovary, or equal to filament length.

Color.—Considered green (RHS Yellow Green 150 C or RHS Yellow Green 154 D) at the beginning of blooming period. The color evolves during the blooming to become yellow.

Ovary.—

Height.—Approximately 2.5 to 3.0 millimeters.

Diameter.—Approximately 1.5 to 2.0 millimeters.

Color.—Green (RHS Yellow Green 145 A) with a white fuzz.

Pubescence.—Present.

Stamens.—

Size compared to petals.—The size of stamen is smaller than the size of petals.

Length.—Approximately 12.0 to 15.0 millimeters, usually higher than the pistil length and sometimes equal.

Color.—White (RHS White N 155 B) to pink (RHS Red Purple 62 C) depending on the maturity stage.

Average number of stamens per flower.—Approximately 28 to 35 stamens per flower.

Stigma.—

Diameter.—Approximately 1.0 millimeter.

Color.—Greenish yellow (RHS yellow Green 151 D).

Fruit:

Maturity when described.—Very firm in ripe conditions (shipping ripe).

Date of first picking.—Jul. 10, 2016.

Date of last picking.—The date of harvest varies slightly with the prevailing climatic conditions. The 'FLATBOOM' variety has a mid-season date of picking, and a grouped maturity. The maturity is grouped within 7 to 10 days and the harvest is generally performed in two runs. Last known picking times carry on from July 10th to Jul. 16, 2016, Jul. 7th to Jul. 13, 2017, and then from July 11th to Jul. 20, 2018.

Size.—

Generally.—Homogeneous in size, size A to 2A considering the European Regulation related to commercialization of fruits. More particularly, a size A

gathers fruits having a diameter between 67 and 80 millimeters and a size 2A gathers fruits having a diameter between 73 and 80 millimeters. Fruits having a size A are considered medium and fruits having a size 2A are considered large.

Average cheek diameter.—Approximately 82.0 millimeters.

Average axial diameter.—Approximately 45.0 millimeters.

Thickness.—Approximately 78.0 millimeters.

Typical weight.—Approximately 162.0 grams. This characteristic is high dependent upon the prevailing cultural practices, and therefore is not particularly distinctive of the variety.

Fruit form.—

Generally.—Round and flattened, generally with few bump, slightly triangular. The fruit is generally uniform in symmetry, viewed from the suture's plane, sometimes asymmetrical.

Suture.—

Fruit suture.—The suture is usually absent, or wide-mouthed and slightly marked when present, extending from the base to the apex. No apparent callousing or stitching exists along the suture line. Not pointed.

Ventral surface.—

Form.—Smooth.

Apex.—slightly depressed.

Mucron.—Absent.

Closing of the pistil cavity.—Very good. The pistil cavity is not visible.

Stem cavity.—Average depth of the stem cavity is considered small, about 5.0 to 6.0 millimeters. Average width is between 11.0 and 13.0 millimeters, and the stem cavity is flared.

Fruit skin.—

Thickness.—Considered medium and strong, and the skin is adherent to flesh is strong.

Texture.—The pubescence of the skin is thin to medium.

Taste.—Semi-sweet, sugary.

Tendency to crack.—None observed.

Color.—

Blush color.—This blush color is a luminous purple red (RHS Greyed Purple 187 A to RHS Greyed Purple 187 B). The purple red blush covers approximately 95% of the fruit skin surface on a red background (RHS Greyed Red 180 A) on approximately 5% of the fruit skin surface. The percentage of the blush on the fruit skin surface can vary and is generally dependent upon the prevailing conditions under which the fruit was grown.

Ground color.—The ground color covers approximately 5% of the fruit skin surface, and is considered red (RHS Greyed Red 180 A).

Lenticels.—None.

Fruit stem.—Short to medium in length, approximately 7.0 to 9.0 millimeters.

Diameter.—Approximately 4.0 to 5.0 millimeters.

Color.—Pale green (RHS Yellow Green 145 A or RHS Yellow Green 145 B).

Flesh.—

Ripens.—Very homogenously, slowly. The flesh has a long shelf life.

Texture.—Very firm, crunchy, melting, juicy at harvest maturity stage.

Fibers.—Not fibrous.

Aroma.—Considered present.

Eating quality.—Considered good to very good, aromatic.

Flavor.—Considered semi-sweet. The Brix is generally superior to 13, and acidity is low.

Juice.—Juicy at complete maturity. The juice shows a cream color.

Brix.—Generally between 13.6 and 14.3 degrees. The medium Brix is 14.0 degrees. This characteristic varies slightly with the number of fruits per tree, prevailing cultural practices and the surrounding climatic conditions.

Flesh color.—The flesh is considered cream (RHS White 155 D or RHS White N 155 C) and becomes pink at complete maturity (RHS Red Purple 59 B or RHS Red Purple 59C), usually with a red pigmentation (RHS Red 47 A) into the stone cavity and radiating around the stone cavity, which can been seen on FIG.3 when the fruit is cut transversely.

Presence and intensity of red pigmentation (anthocyanin) near the skin.—The red pigmentation is present and its intensity is weak.

Stone:

Type.—Semi-Clingstone, more or less semi-adherent depending on the fruit maturity.

Size.—Considered small to medium for the variety. The stone size varies significantly depending upon the tree vigor, crop load and prevailing growing conditions.

Length.—Approximately 14.0 millimeters.

Width.—Approximately 23.0 millimeters.

Diameter.—Approximately 22.0 millimeters.

Form.—Flattened.

Base.—Straight.

Apex.—

Shape.—The stone apex is short.

Stone cavity.—Considered small to medium in size, with flattened form and dimensions corresponding to the stone's dimensions.

Stone surface.—

Surface texture.—The pit is transversely furrowed on its entire surface. Furrows are deeper and more oblate on lateral sides.

Ridges.—The surface texture is generally characterized by more prominent ridges along the ventral edges and at the apical tip.

Ventral edge.—

Width.—Narrow. Approximately 2.0 millimeters at mid-suture.

Dorsal edge.—

Shape.—Grooved.

Stone color.—The color of the dry stone is generally considered light brown (RHS Greyed Orange 164 B or RHS Greyed Orange 164 C).

Tendency to split.—Splitting is absent.

Kernel.—

Size.—The kernel is considered small.

Length.—Approximately 8.0 millimeters.

Width.—Approximately 7.0 millimeters.

Thickness.—Approximately 6.0 millimeters.

Form.—Considered round.

Pellicle.—The pellicle of the kernel has a smooth texture.

Color.—The kernel skin is brown colored (RHS Greyed Orange N167 A). The almond, which is the seed of the kernel, is white (RHS White 155 D) and has a sweet taste. The kernel and its embryo are mature at the time of fruit maturity.

Use.—The subject variety 'FLATBOOM' is considered to be a white flat peach tree having a medium season of maturity, and which produces fruits that are considered firm, attractively colored in purple red. Fruits have semi-sweet taste and are excellent for uncooked consumption, crunchy or melting when at full maturity. Fruits have excellent gustative qualities. Due to their flesh quality, firmness and density, they can also be commercialized as 4^{th} range product (packed fruit or fruit in bags for example). And they are also useful for both local and very long-distance shipping.

Keeping quality.—Remarkable. Fruit have a slow maturation and a long shelf life both on the tree after growth completion and after harvesting without alteration. After growth completion, fruits are preserved more than one week. After harvest, fruits are well preserved more than 2 weeks at 2.0 degree Celsius.

Shipping quality.—Considered very good. The fruit of the new white flat peach variety showed minimal bruising of the flesh or skin damage after being subjected to normal harvesting and packing procedures. Its resistance to handling during harvest and packing and its long shelf life without alteration after harvest easily permit 2 weeks-shipping at 2 degrees Celsius.

Resistance to insects and disease.—No particular susceptibilities were noted. The present variety is not very sensitive to *Monilia* or rot. The pistil cavity is completely closed, generally without any cork formation.

Although the new variety of white flat peach tree possesses the described characteristics when grown under the ecological conditions prevailing near Elne, Pyrénées-Orientales departement, France, 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.

I claim:

1. A new and distinct variety of white flat peach tree as illustrated and described, characterized by fruits with high eating quality and very long shelf life without alteration before and after harvesting, with a semi-sweet cream white flesh which becomes pink at maturity time, and has a red pigmentation into and around the stone cavity, and an attractive skin with a very high percentage of luminous purple red blush on skin surface, on a red background.

* * * * *

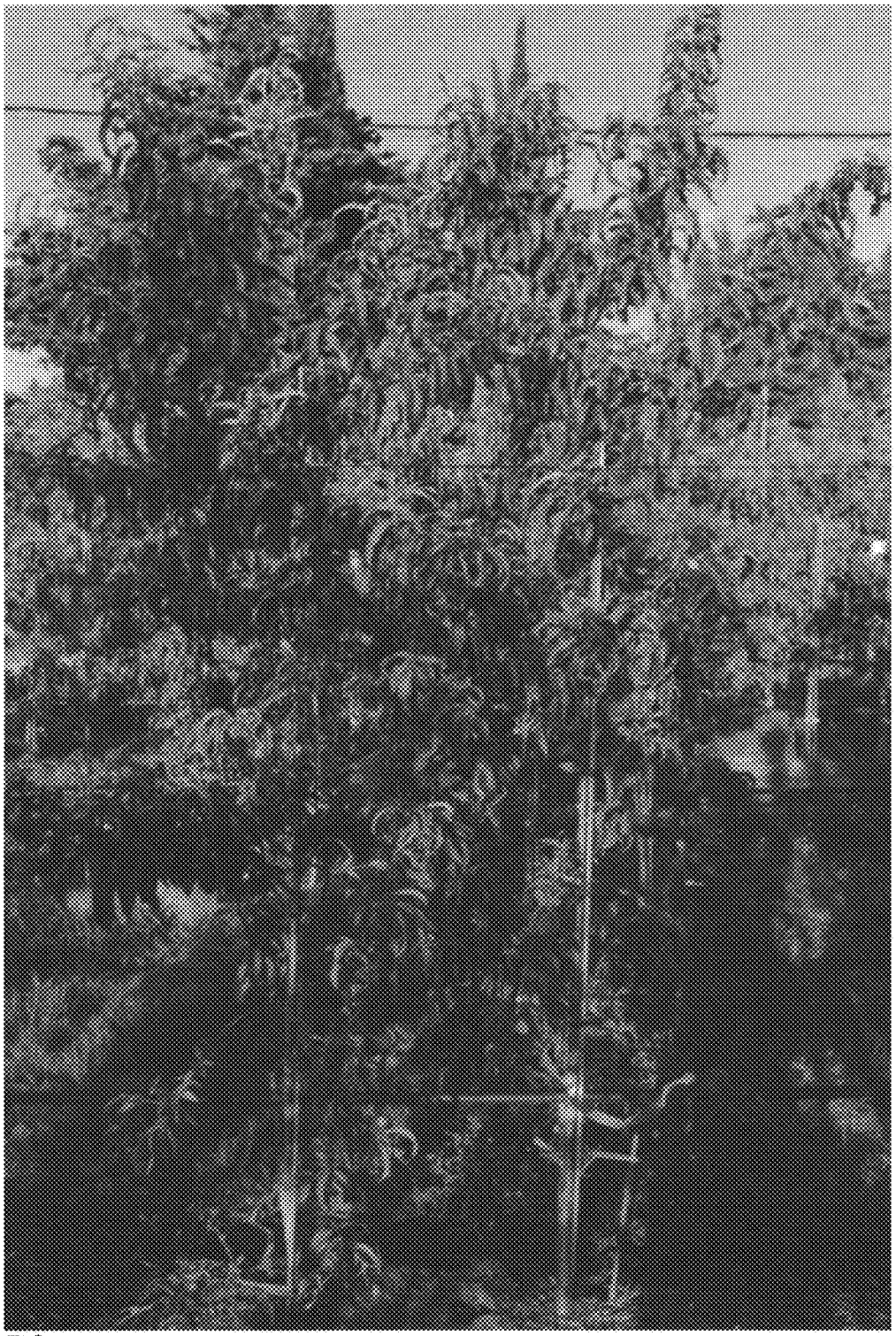

FIG. 1

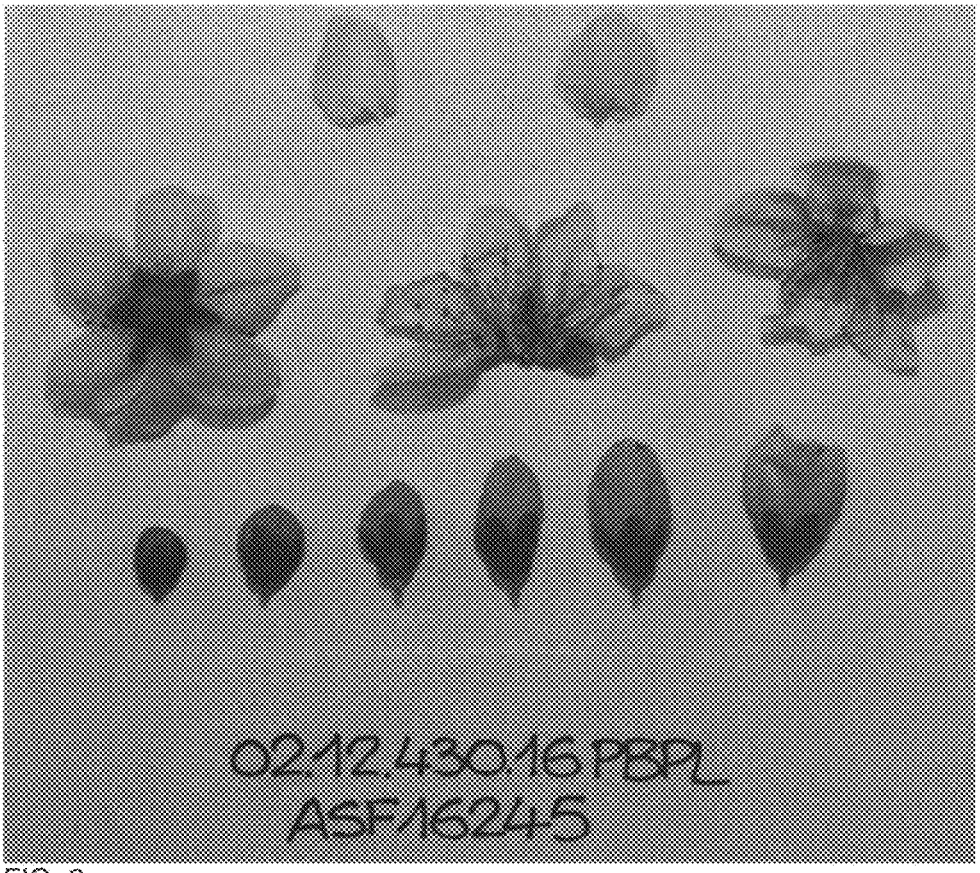

FIG. 2

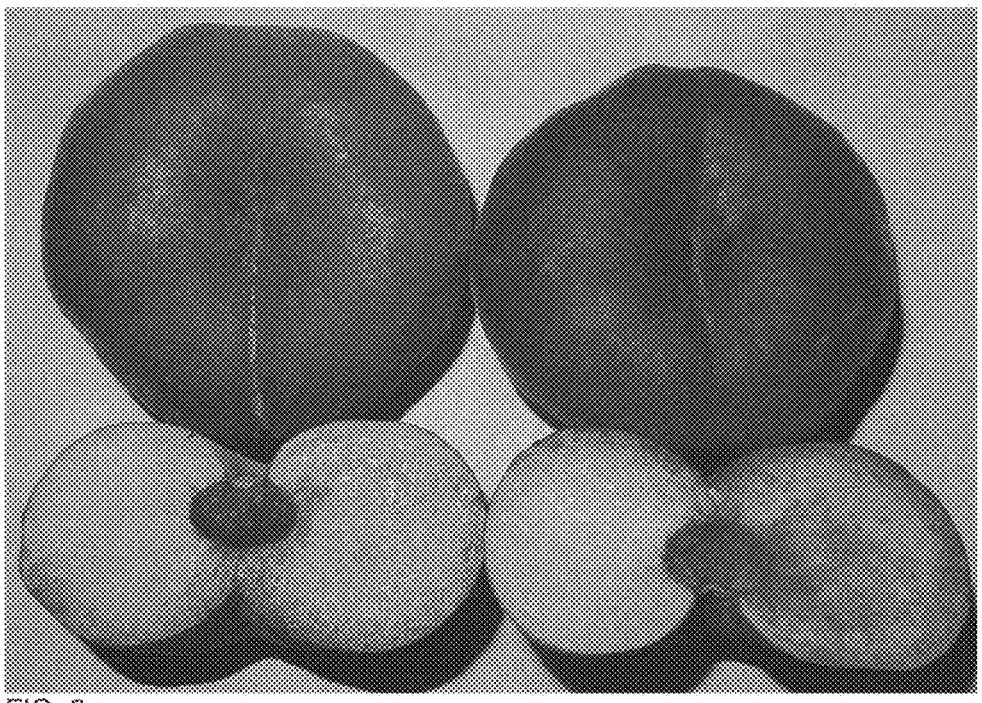

FIG. 3

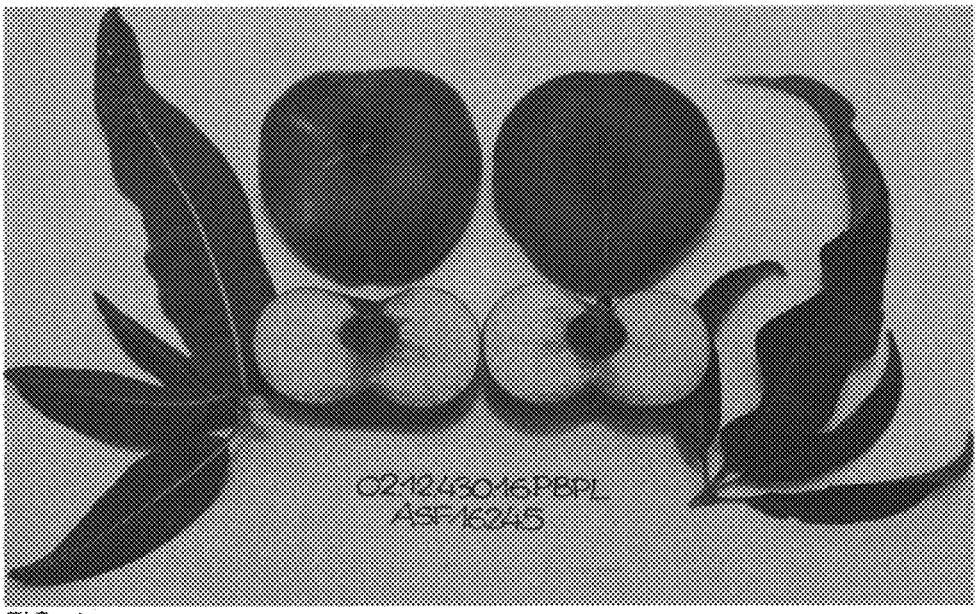

FIG. 4

FIG. 5

FIG. 6

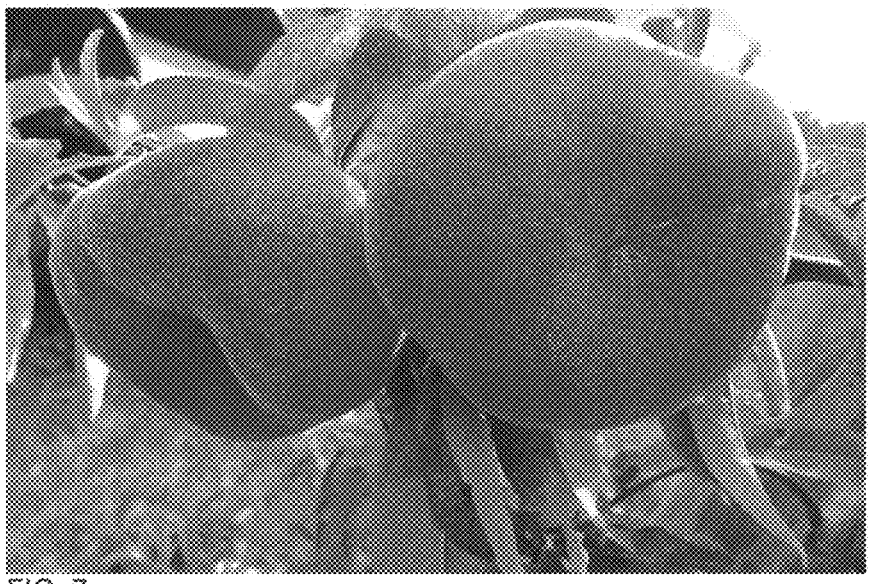

FIG. 7

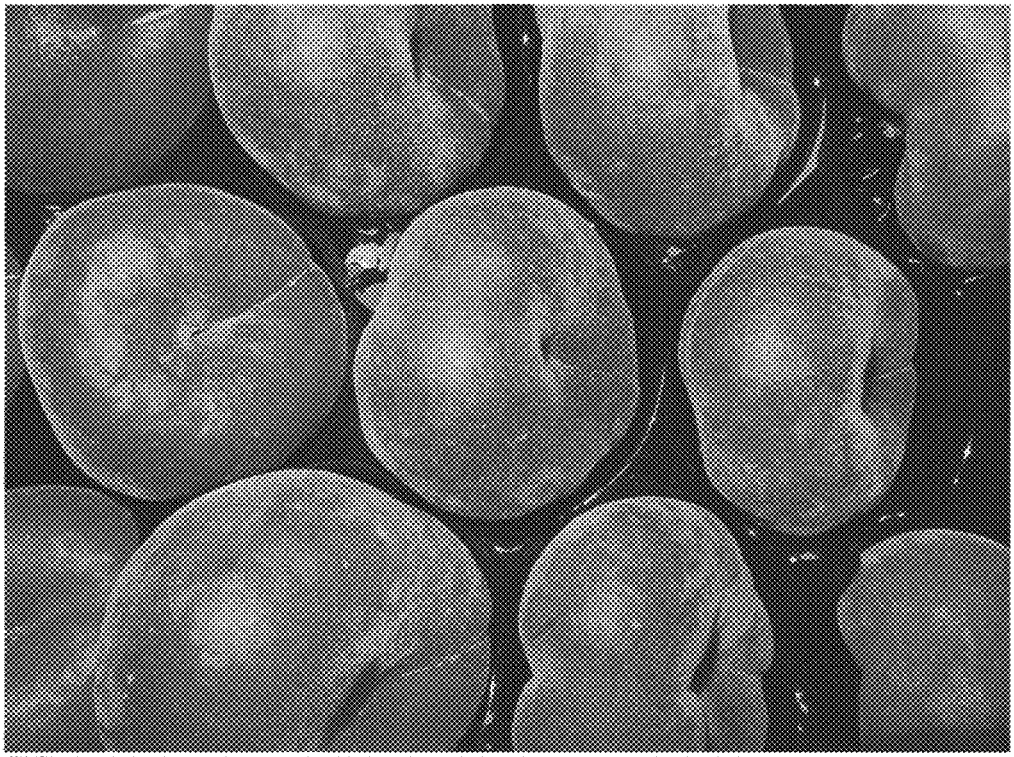

FIG. 8

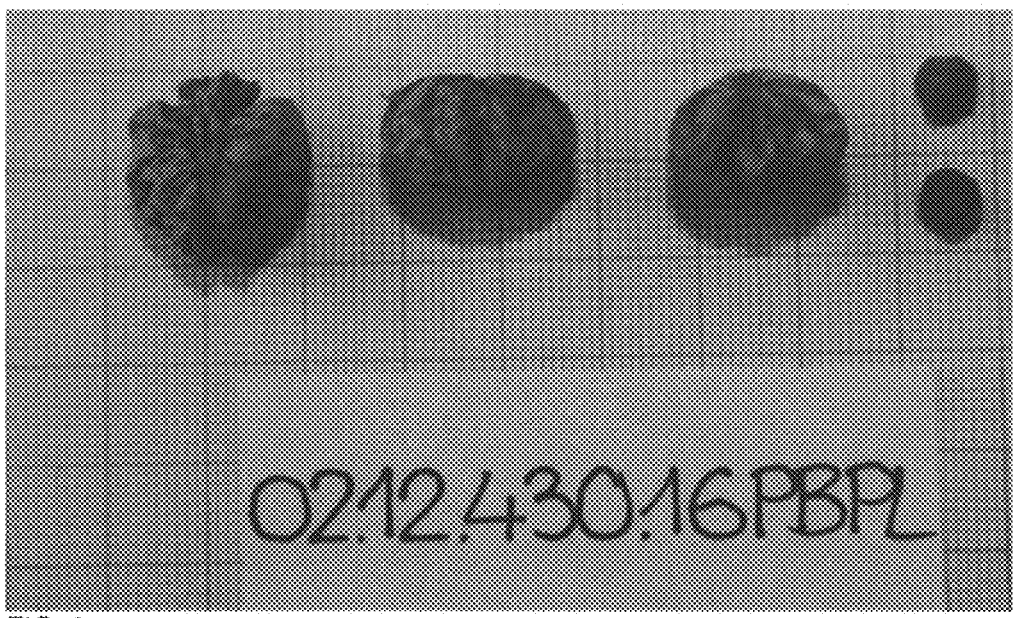

FIG. 9