



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

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(54) **INTERSPECIFIC TREE NAMED ‘SEACLIFF’**

(50) Latin Name: **Interspecific *Prunus* species**
Varietal Denomination: **Seacliff**

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See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of interspecific tree. The follow-
ing features of the tree and its fruit are characterized with the
tree budded on ‘Nemaguard’ Rootstock (non-patented),
grown on Handford sandy loam soil with Storie Index rating
95, in USDA Hardiness Zone 9, near Modesto, Calif., with
standard commercial fruit growing practices, such as prun-
ing, thinning, spraying, irrigation and fertilization. Its nov-
elty consist of the following combination of desirable fea-
tures:

1. Tree having a vigorous, semi-spreading growth habit.
2. Tree being a regular and productive bearer of large size
fruit.
3. Fruit with an attractive orange skin color.
4. Fruit with good flavor and eating quality.

1 Drawing Sheet

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Botanical designation: Interspecific *Prunus* species.
Variety denomination: ‘Seacliff’.

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 organiza-
tion 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 interspecific tree
was originated and asexually reproduced by us in our
experimental orchard located near Modesto, Stanislaus
County, Calif.

PRIOR VARIETIES

Among the existing varieties of interspecific trees, which
are known to us, and mentioned herein, ‘Autumn Sprite’
Interspecific (U.S. Plant Pat. No. 16,599), the non-patented
apricot ‘22602A’ and the proprietary non-patented interspe-
cific seedling selections ‘9ZC483’, ‘382LD381’ and
‘80LA612’.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH AND DEVELOPMENT

Not applicable.

ORIGIN OF THE VARIETY

The new variety of interspecific tree, a combination of
crosses between *Prunus armeniaca* and *Prunus salicina* was

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originated by us in our experimental orchard located near
Modesto, Calif. from crosses between our proprietary non-
patented interspecific varieties with the field identification
numbers ‘9ZC483’ and ‘382LD381’. The seed parent
(9ZC483) originated from crosses between the non-patented
apricot ‘22602A’ and the proprietary non-patented interspe-
cific seedling ‘382LD381’. The pollen parent (382LD381)
originated as an open pollinated seedling selection of the
proprietary non-patented interspecific seedling ‘80LA612’.
A large number of these first generation seedlings were
budded onto older established trees of ‘Nemaguard’ Root-
stock (non-patented) to enhance earlier fruit production.
Under close and careful observation the present seedling
exhibited desirable fruit and tree characteristics and was
selected in 2004 for additional asexual propagation and
commercialization.

ASEXUAL REPRODUCTION OF THE VARIETY

In 2004 asexual reproduction of the new and distinct
variety of interspecific tree was by budding to ‘Nemaguard’
Rootstock (non-patented), as performed by us in our experi-
mental orchard located near Modesto, Calif., and shows that
reproductions run true to the original tree and all character-
istics of the tree and its fruit are established and transmitted
through succeeding asexual propagations.

SUMMARY OF THE VARIETY

The new and distinct variety of interspecific tree, crosses
of Apricots and Plumcots, is of large size, vigorous, semi-
spreading growth and a regular and productive bearer of
large size, orange flesh, freestone fruit. The fruit is further
characterized by having an attractive orange skin color, good
flavor and eating quality. In comparison to its proprietary

non-patented interspecific seed parent (9ZC483) the fruit of the new variety is larger in size and is approximately 9 days later in maturity. In comparison to the proprietary non-patented interspecific pollen parent (382LD381) the fruit of the new variety has more consistent crop, better flavor and is approximately 8 days later in maturity. In comparison to the commercial variety 'Autumn Sprite' Interspecific (U.S. Plant Pat. No. 16,599) the fruit of the new variety is larger in size and is approximately 26 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 interspecific 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 11 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 interspecific tree, its flowers, foliage and fruit, as based on observations of 11 year old specimens grown near Modesto, Calif., with color in accordance with Munsell Book of Color published in 1958.

Tree:

Size.—Large, usually pruned to 3 to 3.5 meters in height and width for economical harvesting of fruit. Varies with different cultural practices.

Vigor.—Vigorous, tree growth of approximately 1.5 to 2 meters the first growing season. Varies slightly with type and fertility of soil, climatic conditions and cultural practices.

Form.—Semi-spreading, usually pruned to vase shape.

Branching habit.—Semi-spreading, crotch angle approximately 30°, increases with heavy crop load.

Productivity.—Productive, thinning and spacing of fruit necessary for desired market size. Fruit set varies with climatic conditions during bloom time.

Bearer.—Regular, adequate fruit set 9 consecutive years. No alternate bearing observed.

Fertility.—Self fertile, sets fruit under bag.

Density.—Medium dense, usually pruned to vase shape to increase air movement and sunlight to center of tree to enhance fruit color and health of fruit spurs.

Hardiness.—Hardy in all stone fruit growing areas of California. Tree grown in USDA Hardiness Zone 9. Winter chilling requirement approximately 800 hours at or below 45° F.

Trunk:

Size.—Medium, average circumference 54.6 cm at 25.4 cm above ground on a 11 year old tree.

Stocky.—Medium stocky.

Texture.—Medium shaggy, roughness increases with age.

Color.—Varies from 2.5Y 7/2 to 5Y 5/2.

Branches:

Size.—Large. Average circumference 21.3 cm at 1.2 meters above ground. Crotch angle approximately 30°, increases with heavy crop load.

Surface texture.—New growth relatively smooth. Mature growth medium rough, roughness increases with age.

Lenticels.—Average number 27 in a 25.8 square cm area. Average length 3.6 mm. Average width 1.4 mm. Color varies from 7.5YR 6/12 to 5YR 6/12.

Color.—New growth varies from 2.5GY 5/6 to 7.5R 3/6. Mature growth varies from 7.5YR 4/2 to 7.5YR 2/4, varies with age of growth.

Leaves:

Size.—Large. Average length 94.7 mm. Average width 72.2 mm.

Form.—Ovate.

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.—Large. Average length 32.6 mm. Average width 1.4 mm. Longitudinally grooved. Surface — glabrous. Color varies from 10Y 6/4 to 5R 3/6.

Glands.—Type — globose. Size — small. Average length 0.5 mm. Average diameter 0.4 mm. Average number 2, varies from 1 to 3. Located primarily on the upper portion of petiole and base of leaf blade. Color varies from 5R 2/4 to 7.5R 2/4.

Stipules.—Average length 9.2 mm. Average number 2. Edges — pectinate. Color varies from 10Y 6/6 to 2.5GY 6/6.

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

Flower buds:

Size.—Small to medium. Average length 11.7 mm. Average diameter 9.1 mm.

Hardiness.—Hardy with respect to California winters.

Density.—Medium dense.

Form.—Conical, becoming elongated just before opening.

Pedicel.—Average length 2.1 mm. Average width 2.0 mm. Surface — glabrous. Color varies from 2.5GY 7/6 to 5GY 6/6.

Color.—Varies from 7.5RP 7/8 to 7.5RP 5/12.

Number of buds per spur.—Varies from 7 to 14, average number 11.

Flowers:

Blooming period.—Date of First Bloom Feb. 19, 2015. Date of Petal Fall Mar. 1, 2015, varies slightly with climatic conditions.

Size.—Small to medium. Average height 14.3 mm. Average diameter 23.3 mm.

Petals.—Normally 5, alternately arranged to sepals. Size — Medium. Average length 11.3 mm. Average width 14.0 mm. Shape — orbicular. Arrangement — overlapping. Petal apex — rounded. Petal base — rounded to truncate. Margin — sinuate. Color varies from 5RP 8/4 to 5RP 6/10.

Sepals.—Normally 5, alternately arranged to petals. Size — medium. Average length 4.6 mm. Average width 4.9 mm. Shape — ovate. Margin — entire. Apex — rounded. Both upper and lower surfaces

glabrous. Color — upper surface 2.5R 3/8. Lower surface varies from 2.5R 3/8 to 5R 2/8.

Stamens.—Average number per flower 29. Average filament length 10.5 mm. On average, the stamens are below the height of the petals. Filament color N 9.5/(white). Anther color varies from 5Y 8/8 to 5Y 8/10.

Pollen.—Self fertile, sets fruit under bag. Color varies from 2.5Y 7/10 to 5Y 7/10.

Pistil.—Number — normally one. Average length 11.3 mm. Position of stigma an average of 2.2 mm below anthers. Surface — pubescent. Color varies from 7.5Y 8/6 to 10Y 8/6.

Fragrance.—Heavy aroma.

Color.—Varies from 5RP 9/2 to 5RP 8/2.

Pedicel.—Average length 2.2 mm. Average width 2.2 mm. Surface — glabrous. Color varies from 10Y 7/6 to 2.5GY 8/6.

Number flowers per flower bud.—Average 2, varies from 1 to 3.

Fruit:

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

Date of first picking.—Jul. 9, 2015.

Date of last picking.—Jul. 19, 2015, varies slightly with climatic conditions.

Size.—Large. Average diameter axially 72.8 mm. Average transversely in suture plane 70.9 mm. Average across suture plane 61.3 mm. Average weight 164.7 grams, varies slightly with fertility of the soil, amount of thinning and climatic conditions.

Form.—Globose to slightly elongated.

Suture.—Slightly lipped, extends from base toward apex.

Ventral surface.—Slightly lipped.

Apex.—Rounded.

Base.—Retuse.

Stem cavity.—Rounded to slightly elongated in suture plane. Average depth 4.9 mm. Average diameter 4.8 mm.

Stem:

Size.—Small. Average length 6.6 mm. Average diameter 4.1 mm.

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

Flesh:

Ripens.—Evenly.

Texture.—Firm, meaty.

Fibers.—Few, small, tender.

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

Aroma.—Heavy aroma.

Amydgalin.—Undetected.

Eating quality.—Good.

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

Juice.—Moderate amount, enhances flavor.

Acidity.—Not available.

Brix.—Average Brix 14.5°, varies slightly with amount of fruit per tree and climatic conditions.

Color.—Varies from 7.5YR 7/10 to 7.5YR 6/12.

Pit cavity.—Average length 35.6 mm. Average width 29.4 mm. Average depth 8.7 mm. Color varies from 6.25YR 6/12 to 5YR 6/12.

Skin:

Thickness.—Medium.

Surface.—Slightly waffled.

Pubescence.—Moderate, short in length.

Tendency to crack.—None.

Color.—Varies from 7.5YR 6/8 to 10YR 7/8.

Tenacity.—Tenacious to flesh.

Astringency.—Slight to none.

Stone:

Type.—Freestone, weak adherence to flesh.

Size.—Large. Average length 34.6 mm. Average width 28.4 mm. Average thickness 15.3 mm.

Form.—Ovoid.

Base.—Flat.

Apex.—Rounded.

Surface.—Lightly pitted throughout. One shallow groove on each side of suture extending from base toward apex.

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

Ridges.—Very small and short, extending from base towards apex.

Tendency to split.—None.

Color.—Varies from 10YR 5/4 to 2.5Y 4/4 when dry.

Kernel:

Size.—Large. Average length 21.8 mm. Average width 16.5 mm. Average depth 9.1 mm.

Form.—Ovoid.

Viability.—Viable, complete embryo development.

Skin color.—Varies from 5Y 9/2 to 7.5Y 9/2.

Use: Dessert.

Market.—Local and long distance.

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

Shipping quality: Good, showed minimal skin scarring or flesh bruising during picking, packing and shipping trials.

Plant/fruit disease resistance/susceptibility: No specific testing for relative plant/fruit disease resistance/susceptibility has been designed. Under close observation during planting, growing and harvesting of fruit, under normal cultural and growing conditions near Modesto, Calif., no particular plant/fruit disease resistance or susceptibility has been observed. Any variety observed during indexing of plant characteristics with abnormal fungus, bacterial, virus or insect susceptibility is destroyed and eliminated from our breeding program. No atypical resistances/susceptibilities have been noted under normal cultural practices.

The present new variety of interspecific tree, its flowers foliage and fruit herein described may vary in slight detail due to climate, soil conditions and cultural practices under which the variety may be grown. The present description is that of the variety grown under the ecological conditions prevailing near Modesto, Calif.

The invention claimed is:

1. A new and distinct variety of interspecific tree, substantially as illustrated and described.

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