



US00PP13740P29

(12) **United States Plant Patent**  
**Flagler**

(10) **Patent No.:** **US PP13,740 P2**

(45) **Date of Patent:** **Apr. 29, 2003**

(54) **PLUM TREE NAMED 'DANAE'**

(76) Inventor: **George Flagler**, P.O. Box 68, Parlier, CA (US) 93648

(\* ) 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.: **10/013,744**

(22) Filed: **Dec. 7, 2001**

(51) **Int. Cl.**<sup>7</sup> ..... **A01H 5/00**

(52) **U.S. Cl.** ..... **Plt./184**

(58) **Field of Search** ..... **Plt./184**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

PP8,037 P 11/1992 Wuhl

*Primary Examiner*—Bruce R. Campell

*Assistant Examiner*—Susan B. McCormick

(74) *Attorney, Agent, or Firm*—Mark D. Miller

(57) **ABSTRACT**

A new and distinct variety of plum tree which is somewhat remotely similar to the 'Angelino' plum (unpatented), but from which it is distinguished therefrom by fruit for harvesting and shipment approximately the three to five days earlier than the fruit produced by the 'Angelino' plum tree, but which further produces a high quality, fresh market plum of medium size with a dark purple to burgundy colored skin and red flesh of exceptional eating quality and good storage characteristics.

**1 Drawing Sheet**

**1**

**BACKGROUND OF THE NEW VARIETY**

This present invention relates to a new and distinct variety of plum tree, which will hereinafter be denominated vari-  
etally as 'Danae' and more particularly to a plum tree which  
produces fruit which are mature for commercial harvesting  
and shipment approximately the first week of September in  
the San Joaquin Valley of Central California, and which is  
further distinguished as to novelty by producing a freestone  
fruit which has a flavor superior that of late maturity  
commercial plum varieties and which has a coloration  
having a dark purple to burgundy characteristic and red  
colored flesh.

There are a number of criteria within which a commercial  
variety of tree fruit must excel if it is to be a success in the  
fresh market. Among these are ripening date, flavor, texture,  
shipping quality and similar characteristics. Another factor  
or factors are coloration and size of the fruit. Typically fruit  
that is of high coloration and good size is commercially  
desirable in that it is attractive and thereby appealing to the  
consumer. More subtly high coloration, if different than  
competing commercial variety, attracts immediate attention  
in the market place which substantially increases the like-  
lihood of commercial success.

Fresh market plums are characterized as the coloration  
typically by shades of yellowish green to red to dark purple  
to black with flesh colors varying from yellow or amber to  
various shades of red. The plum fruit may vary from being  
a clingstone to semi-freestone to freestone with freestone  
being the preferred characteristic. Of critical importance in  
plum varieties of fruit are good size and holding quality  
along with good eating quality.

**ORIGIN AND ASEXUAL REPRODUCTION OF  
THE NEW VARIETY**

The present variety was discovered as an open, pollinated  
hybrid of the 'Showtime' plum tree (U.S. Plant Pat. No.  
8,037) in a sixteen acre plum orchard located approximately  
½ mile south of Manning Avenue in Parlier, Calif. The

**2**

grafting of the scion wood of the new invention took place  
at that location. The grower has observed this invention  
since 1999 and confirmed that distinctive characteristics of  
the parent tree are precisely reproduced in the progeny.

**SUMMARY OF THE NEW VARIETY**

The 'Danae' plum tree is characterized as to novelty by  
producing a freestone fruit which has a dark purple to  
burgundy skin coloration with red flesh. The fruit produced  
by the 'Danae' plum tree is ripe for commercial harvesting  
the first week of September in the San Joaquin Valley of  
Central California. The new and novel variety is perhaps  
more closely similar to the 'Angelino' plum tree  
(unpatented) but is distinguishable therefrom and is charac-  
terized as a high quality fresh market plum of medium size  
ripening in the first week of September and possessing an  
unusually excellent flavor and excellent handling and ship-  
ping characteristics. This new variety is equal to or slightly  
larger than 'Angelino' but is substantially superior to the  
'Angelino' in flavor. The new variety has substantially  
better or richer flavor and is well balanced. The 'Danae'  
produces fruit about six weeks later than 'Showtime' (U.S.  
Plant Pat. No. 8,037). The 'Danae' fruit is smaller in size and  
has better holding capacity than 'Showtime,' and the flesh  
has a clear ground color as opposed to red for 'Showtime.'

The exterior of this new variety has coloration similar to  
'Angelino' but the flesh has a red coloration and good  
fumes. Because of the exceptional flavor and the freestone  
nature this plum will have greater consumer acceptance.

**BRIEF DESCRIPTION OF THE DRAWING**

The accompanying drawing is a color photograph of  
mature fruit of the new variety showing several in top view,  
a second in side elevation displaying the suture, several fruit  
showing the side thereof 90 degrees from the suture, a fourth  
sectional along the suture and laid open to expose the stone  
alone with both halves displaying the stone well, and finally



portions of representative foliage, and terminal twigs and branches.

#### DETAILED DESCRIPTION

Referring more specifically to the pomological details of this new and distinct variety of plum tree, the following has been observed under the ecological conditions prevailing at the orchard of origin which is located at Parlier, Calif. All major color code designations are by reference to the Maerz and Paul, Dictionary of Colors, First Edition, 1930.

#### TREE

**Rootstock:** The observed plant was propagated and grown on Nemaguard rootstock.

**Size:** Medium, similar in size and growth habit to typical plum trees. (approximately 10–12 feet in height, and from approximately 8–10 feet in width, depending upon cultural practices, fertilization, pruning, soil conditions, climate, watering, temperature, girdling and available space).

**Vigor:** Vigorous, with chilling requirements typical of plum trees grown in the San Joaquin Valley. Very good productivity with regularity of bearing.

**Figure (form):** Upright to slightly spreading. **A. Trunk Size:** Medium (typical trunk diameter of approximately 16–18 inches at 18 inches above ground level for mature tree, depending upon age and cultural practices), surface texture semi-rough or coarse with numerous lenticels. Color Code (older bark) Turtle Dove (55-C-2).

**Branches:**

*Size.*—Medium (typical branch diameter of approximately 8 inches at 40 inches above ground level for mature tree, depending upon age and cultural practices).

*Surface texture.*—Mature — Nearly smooth. Immature — Smooth. Color Code (one year or older) — Kara Dagh (56-A-2). Color Code (immature) — Near Rose Quartz+ (53-C-4). Lenticules — numerous. Lenticels — small.

#### LEAVES

**Size:** Medium.

**Length:** 85–105 mm. (3.35–4.13 inches).

**Width:** 32–45 mm. (1.26–1.77 inches).

**Shape:** Lanceolate having a tapering apex and a tapering base.

**Texture:** Glabrous.

**Color code:**

*Upwardly disposed surface.*—Mt. Vernon Green (23-J-8).

*Downwardly disposed surface.*—Sage Green (22-J-5).

**Marginal form:** Serrated.

**Leaf vein:** Color Code — (Gray drab) Quaker Gray (21-B-1).

**Venation pattern:** Pinnate.

**Thickness:** 1 mm. (0.039 inches).

**Glandular characteristics:**

*Form.*—Globular.

*Color code.*—Mt. Vernon Green (23-J-8).

*Size.*—>1 mm.

*Number.*—2–4 on both sides at base of leaf.

**Petiole:**

*Size.*—Medium.

*Length.*—15–19 mm. (0.59–0.75 inch).

*Diameter.*—2 mm. (0.079 inch).

*Color code.*—Mt. Vernon Green (23-J-8).

#### FLOWERS

**Flower buds:** In clusters of two or three (0.16–0.24 inch).

**Size:** Small — 4–6 mm. in diameter.

**Form:** Plump (conic).

**Bud scales:** Color Code — Green (23-J-9).

**Generally:** Minutely pubescent.

**Date of bloom:** Feb. 19–20, 1998 (15–20%).

**Size:** Small.

**Diameter:** Width — 15–23 mm. (0.59–0.91 inch diameter).

**Bloom quality:** Abundant and showy.

**Fragrance:** None.

**Petals:**

*Size.*—Five in number. Length: 8–10 mm. long (0.31–0.39 inch). Width: 10 mm (0.39 inch).

*Form.*—Broadly ovate.

*Color code.*—White (2-A-1).

*Apex.*—Semi round.

*Base.*—Semi round.

*Petal claws.*—Broadly truncate. Length — less than 1 mm (0.039 inches). Width — 1 mm (0.039 inches).

*Petal margins.*—Rounded with undulated margins.

*Flower pedicel.*—Very short, 1 mm (0.039 inches).

Color Code — Mt. Vernon green (23-J-8).

Surface — Slightly pubescent. Diameter — 2 mm (0.079 inches).

**Sepals:**

*Surface.*—Pubescent.

*Length.*—2–3 mm (0.079–0.12 inches).

*Width.*—3 mm (0.12 inches).

*Form.*—Broadly ovate.

*Color code.*—Green (23-J-9).

*Number.*—Five.

**Calyx:** Color Code — Brown (11-A-6) at base with a greenish tinge (23-J-8) at apex.

**Anthers:**

*Size.*—Small.

*Color code.*—Sea Green (11-G-7).

**Stamen:**

*Size.*—3–6 mm (0.1–0.24 inch long).

*Number.*—16–24.

**Pistil:**

*Length.*—16 mm (0.24 inch).

*Number.*—1.

*Color code.*—White (2-A-1).

*Surface.*—Pubescent.

#### FRUIT

**Date of maturity:** First week of September.

**Size:** Medium.

*Diameter axial plane.*—55–57 mm (2.17–2.24 inches).

*Transverse in suture plane.*—55–57 mm (2.17–2.24 inches).

*Transverse at right angles to suture plane.*—50–51 mm. (1.97–2.01 inches).

*Average fruit weight.*—3 ounces (4 fruit per 12 ounces).

**Form.** Uniform, symmetric or asymmetric — slightly asymmetric.

**Suture:** Shallow.

**Ventral surface:** Smooth.

**Stem cavity:**

*Shape.*—Oval.

*Width.*—6–7 mm (0.24–0.28 inch).

*Depth.*—6–9 mm ((0.24–0.35 inch)  
*Length.*—10 mm (0.39 inch)  
 Stem length: Short, caliper — 2 mm (0.079 inch).  
 Apex: Slightly pointed.  
 Skin: Medium thickness.  
 Texture: Soft.  
 Tendency to crack: None known.  
 Color codes:  
*Blush color.*—Medici Blue (37-E-12).  
*Ground color.*—Port (56-E-12). Skin is completely dark.  
*Flesh color at maturity.*—Near Rosewood (5-F-10) near skin, then it becomes Afghan R. Checkerberry+ (5-L-6).  
*Color of surface of pit cavity.*—Near Rosewood (5-F-10).  
*Color of pitwell.*—Ferruginous (5-D-12).  
 Juice production: Good.  
 Flavor: Excellent.  
 Aroma: Good.  
 Texture: Firm.  
 Fibers: None.  
 Ripening: Evenly.  
 Eating quality: Very good.  
 Stone: Free.  
*Fibers.*—Numbers — Few.  
*Size.*—Short. Length — 20–21 mm (0.79–0.83 inch).  
 Width —12–17 mm (0.47 to 0.67 inch). Diameter (thickness) — 11–12 mm (0.43–0.47 inch).  
*Form.*—Oval.  
*Apex shape.*—Pointed.  
*Color code.*—When dry — Sorrel (13-J-11).

*Bases.*—Flat.  
*Sides.*—Ridges — 2 shallow ridges on ventral side, one on dorsal side.  
*Texture.*—Smooth to slightly pebbled.  
*Tendency to split.*—None known.  
*Pollination.*—With graft limb of fruit producing tree.  
*Use.*—Fresh market.  
 Quality:  
*Ripening quality.*—Uniform.  
*Resistance to disease.*—Unknown at this time — normal for plums.  
*Shipping and handling qualities.*—Good.

Although the new variety of plum tree has the described characteristics as noted above as a result of the growing conditions prevailing at Parlier, Calif. in the San Joaquin Valley of Central California, it is to be understood that variations of the usual magnitude and characteristics may occur due to changes in growing conditions, fertilization, pruning and pest control.

Having thus described and illustrated my new variety of plum tree, what I claim as new and desire to be secured by plant letters patent is:

1. A new and distinct variety of plum tree substantially as illustrated and described, and which is an unknown sort and is somewhat similar to 'Angeleno' plum tree (unpatented) but is distinguished therefrom and characterized principally as to novelty by producing fruit which are mature for commercial harvesting and shipment during the first week of September, and which have a superior flavor, red flesh, dark purple to burgundy coloration, and excellent eating quality.

\* \* \* \* \*



