



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

(10) **Patent No.:** **US PP27,318 P3**  
(45) **Date of Patent:** **Nov. 1, 2016**

(54) **PISTACHIO ROOTSTOCK TREE NAMED**  
**‘WONDERFUL PISTACHIO ROOTSTOCK #3’**

(50) Latin Name: *Pistacia atlantica*×*P.integerrima*  
Varietal Denomination: **Wonderful Pistachio**  
**Rootstock #3**

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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 83 days.

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(65) **Prior Publication Data**

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(51) **Int. Cl.**  
**A01H 5/08** (2006.01)

(52) **U.S. Cl.**  
USPC ..... **Plt./152**

(58) **Field of Classification Search**  
USPC ..... Plt./174, 152  
See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct variety of pistachio tree characterized by  
producing large leaves, reddish-green new foliage, and dark  
green mature foliage. The new variety is useful as a root-  
stock for commercial nut bearing pistachio varieties.

**3 Drawing Sheets**

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Latin name of the genus and species claimed: *Pistacia*  
*atlantica*×*P. integerrima*.

Variety denomination: ‘WONDERFUL PISTACHIO  
ROOTSTOCK #3’.

**BACKGROUND AND SUMMARY OF THE  
INVENTION**

This invention relates to the discovery and asexual propa-  
gation of a new and distinct variety of Pistachio tree,  
*Pistachio atlantica* (unpatented)×*P. integerrima* (un-  
patented), cv. ‘Wonderful Pistachio Rootstock #3’ as herein  
described and illustrated. The new variety was first selected  
as breeder number ‘SR412-4’. The new variety is a hybrid  
of *P. atlantica* and *P. integerrima* which was first discovered  
on cultivated land from trees grown from seed produced by  
a cross of the two parent varieties. The new variety was  
discovered, further characterized, and propagated by Joseph  
MacIlvaine, Eric Mercure and John Etchamendy in the San  
Joaquin Valley, Kern County, Calif.

The new variety ‘Wonderful Pistachio Rootstock #3’ is  
characterized by producing large leaves, reddish-green new  
foliage, dark green mature foliage and upright habits with  
rounded crown. The new variety is useful as a rootstock to  
nut bearing pistachio.

The new variety ‘Wonderful Pistachio Rootstock #3’ was  
first asexually propagated in 2002 by Eric Mercure by tissue  
culture in the Southern San Joaquin Valley in Kern County,  
Calif. and established and transmitted through succeeding  
propagation by air-layering.

The male parent is *P. integerrima* (unpatented) and the  
female parent is *P. atlantica* (unpatented). The date of first  
planting was 1996, and the date of first flowering was 2000.

The new variety ‘Wonderful Pistachio Rootstock #3’  
differs from its male parent *P. integerrima* in that the leaves

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and leaflets are shorter. Also, the leaflet base is more rounded  
in the new variety. In addition, the leaves are less red when  
emerging and fall off sooner.

The new variety ‘Wonderful Pistachio Rootstock #3’  
differs from its female parent *P. atlantica* in that new variety  
is more vigorous and is believed to be more resistant to  
verticillium disease. The leaflets of the new variety are  
smaller and less rounded with a faster growth rate. The new  
variety has an overall larger size canopy.

The new variety can be distinguished from other available  
varieties by its yield characteristics. The closest available  
varieties are *Integerrima* ‘Pioneer Gold’ and UCB1, an  
*atlantica*×*integerrima* hybrid. Yields on *P. vera* have been  
observed to be consistently higher on mature trees on the  
new rootstock variety when compare to Pioneer Gold and  
UCB1. The new variety ‘Wonderful Pistachio Rootstock #3’  
has a 70% improved yield over the average yield from *P.*  
*vera* on UCB1. The yield of the new variety ‘Wonderful  
Pistachio Rootstock #3’ was measured from 2004-2013.

The new variety ‘Wonderful Pistachio Rootstock #3’ can  
also be distinguished from ‘Pioneer Gold’ by the leaf shape.

The new ‘Wonderful Pistachio Rootstock #3’ has been  
shown to maintain its distinguishing characteristics through  
successive asexual propagations by, for example, tissue  
culture and air layering.

Variations of the usual magnitude from the characteristics  
described herein may occur with changes in growing con-  
ditions, irrigation, fertilization, pruning, management and  
with climatic variation.

**BRIEF DESCRIPTION OF THE DRAWINGS**

The accompanying color photographic illustration  
FIG. 1 shows a mature tree, with foliage, of the new  
variety ‘Wonderful Pistachio Rootstock #3’.

FIG. 2 shows a close up of the trunk and the foliage.

FIG. 3 shows a close up of the foliage. The colors of photographic illustration are as nearly true as is reasonably possible in a color representation of this type.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Throughout this specification, color names beginning with a small letter signify that the name of that color, as used in common speech, is aptly descriptive. Color names beginning with a capital letter designate values based upon The R.H.S. Colour Chart, published by The Royal Horticultural Society, London, England, 5<sup>th</sup> edition, 2007.

The descriptive matter which follows pertains to 'Wonderful Pistachio Rootstock #3' grown in the vicinity of the Southern San Joaquin Valley in Kern County, Calif. during 2002 to present, and is believed to apply to plants of the variety grown under similar conditions of soil and climate elsewhere.

#### PLANT

##### General:

*Growth.*—Upright tree with a rounded crown reaching 70-100 feet in height.

#### FOLIAGE

##### Leaves:

*Number of leaflets.*—7-9.

*Average length.*—Long, approximately 8-10 inches.

*Average width.*—Medium, approximately 5-6 inches.

##### Leaflets:

*Size.*—Medium, approximately 3 inches.

*Shape.*—Lanceolate.

*Length.*—Medium, approximately 2.5-3 inches.

*Color of new leaflets.*—About Dark Greyed-purple 183B.

*Color of old leaflets.*—About Dark Green 137A, Dark Green 137B and Yellow-Green 147B.

*Edge.*—Entire.

*Petiole.*—Petiolated.

*Arrangement of petiole.*—Pinnately compound.

*Arrangement of stems.*—Opposite.

*Shape of leaf at apex.*—Acuminate.

*Shape of leaf at base.*—Acute.

*Margin.*—Entire.

*Venation.*—Pinnate.

*Vein color.*—About Dark Green 137A, Dark Green 137B and Yellow-Green 147B.

*Texture of top surface.*—Glabrous.

*Texture of bottom of surface.*—Glabrous.

##### Ribs:

*Length.*—Approximately 6-8 inches.

*Color.*—About Dark Greyed-Purple 183A-B to Medium Yellow-Green 144A-B, and underside color About Medium Yellow-Green 144B.

##### Petiole:

*Length.*—Approximately 2 inches.

*Color.*—About Dark Greyed-Purple 183B to Medium Yellow-Green 144A-B.

*Diameter.*—Less than 1/8 inch.

##### Growth:

*Trunk shape.*—Upright.

*Trunk color.*—About Dark Brown 200B with fissures About Medium Grey-Brown 199D.

*Tree height.*—Approximately 4-5 feet prior to budding of the nut producing scion in July-September.

*Tree spread.*—None, a the rootstock is grown as a single stem.

*Trunk diameter.*—Large, approximately 1/2 to 3/4 inches prior to budding. Diameter at the time of maturity is unknown.

*Bark texture.*—Striated when young and slightly furrowed with age.

*Vegetative bud size.*—Approximately 1/8"-1/4".

*Vegetative bud color.*—Reddish-gray.

##### What is claimed is:

1. A new and distinct variety of pistachio tree as herein illustrated and described.

\* \* \* \* \*



*FIG. 1*



*FIG. 2*



*FIG. 3*

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : PP27,318 P3  
APPLICATION NO. : 14/544206  
DATED : November 1, 2016  
INVENTOR(S) : Joseph MacIlvaine, Eric Mercure and John Etchamendy

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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:

On the Title Page

Item (50), Latin name, Change "*Pistacia atlanticaxP.integerrima-*" to -- '*Pistacia atlantica*' x '*P.integerrima*' --.

In the Specification

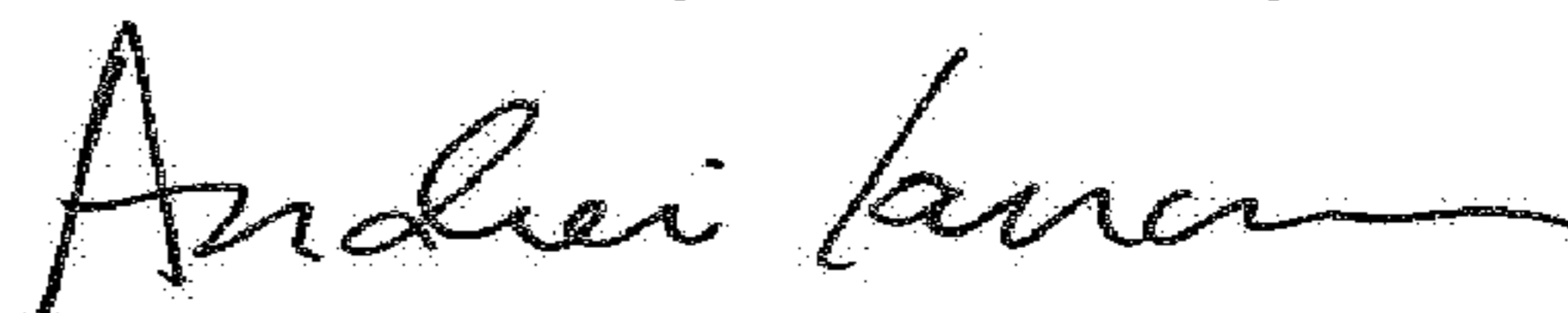
In Column 1 at Line 2, Change "*Pistacia atlanticaxP.integerrima-*" to -- '*Pistacia atlantica*' x '*P.integerrima*' --.

In Column 1 at Line 17, Change "MacIlvine-" to -- MacIlvaine --.

In Column 4 at Lines 11 and 12, Change "Globrous" to -- Glabrous --.

In Column 4 at Line 29, Change "a-" to -- as --.

Signed and Sealed this  
Thirteenth Day of February, 2018



Andrei Iancu  
Director of the United States Patent and Trademark Office