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

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(54) **PISTACHIO HYBRID ROOTSTOCK NAMED**
‘19PaPi-SY’

(50) Latin Name: *Pistacia atlantica* x *Pistacia*
integerrima
Varietal Denomination: **19PaPi-SY**

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patent is extended or adjusted under 35
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(65) **Prior Publication Data**

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(52) **U.S. Cl.**

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CPC *A01H 5/10* (2013.01); *A01H 6/00*
(2018.05)

(58) **Field of Classification Search**

USPC Plt./152

See application file for complete search history.

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(57) **ABSTRACT**

A new and distinct pistachio tree named ‘19PaPi-SY’ devel-
oped for use as a rootstock and notable for its vigor,
amenability to in vitro propagation, asphyxia tolerance and
compatibility with *Pistacia vera* scions.

4 Drawing Sheets

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Latin name: *Pistacia atlantica* x *Pistacia integerrima*.

Variety denomination: ‘19PaPi-SY’.

BACKGROUND OF THE VARIETY

‘19PaPi-SY’ is a new and distinct pistachio tree devel-
oped for use as a rootstock. ‘19PaPi-SY’ was selected from
among seedlings obtained from a controlled cross of female
parent *Pistacia atlantica* (not patented) and male parent
Pistacia integerrima (not patented) carried out at Yuba City,
California. The ‘19PaPi-SY’ pistachio tree was observed to
be more vigorous than standard pistachio rootstock ‘UCB-1’
(not patented) and was selected for propagation and further
observation in 2020. The first asexual propagation of the
variety was carried out by in vitro propagation in 2020 at
Yuba City, California. The variety has since been asexually
reproduced through successive generations and has been
observed to remain true to type.

BRIEF DESCRIPTION OF THE VARIETY

‘19PaPi-SY’ was first selected for its vigor as compared
to ‘UCB-1’ pistachio rootstock. A molecular genetic marker
associated with ‘19PaPi-SY’ is an indicator of broad envi-
ronmental adaptability of increased vigor. A comparison of
‘19PaPi-SY’ and ‘UCB-1’ to the industry standard is set
forth in Table 1 below.

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TABLE 1

Comparison of ‘19PaPi-SY’ and ‘UCB-1’ to Industry Standard

	Relative Size to Industry Standard 2 nd Leaf		Relative Size to Industry Standard 3 rd Leaf	
	Rootstock	Scion	Rootstock	Scion
19PaPi-SY	126%	138%	121%	114%
UCB-1	101%	129%	83%	94%
Industry Standard	100%	100%	100%	100%

‘19PaPi-SY’ has been found to be more amenable to in
vitro propagation than ‘UCB-1’, with an in vitro multipli-
cation rate of about 133% of the ‘UCB-1’ multiplication
rate. Asphyxia tolerance in ‘19PaPi-SY’ exceeds that of
‘UCB-1’ and ‘P.N.1-15’ (U.S. Plant Pat. No. 14,706) com-
mercial pistachio rootstocks. ‘19PaPi-SY’ is further useful
as a rootstock due to its scion compatibility with *Pistacia*
vera edible kernel pistachio varieties.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

FIG. 1 shows a tree of the claimed variety;
FIG. 2 shows a branch and leaves of the claimed variety;
FIG. 3 shows the upper surface of leaves of the claimed
variety; and
FIG. 4 shows the lower surface of leaves of the claimed
variety.

**DETAILED BOTANICAL DESCRIPTION OF
THE VARIETY**

The following-detailed botanical description is based on
observations made at Yuba City, California during the 2023

growing season of 3-year-old trees grown on their own roots. All colors are described according to The R.H.S. Colour Chart (Royal Horticultural Society, London, 6th edition). It should be understood that the characteristics described will vary somewhat depending upon cultural practices and climatic conditions, and will vary with location and season. Quantified measurements are expressed as an average of measurements taken from a number of individual plants of the new variety. The measurements of any individual plant or any group of plants of the new variety may vary from the stated average.

Tree:

Height.—1.8 m.

Trunk diameter at 20 cm above the soil.—24.6 mm.

Bark texture.—Slightly rough.

Bark color.—Grey-brown 199C.

Lenticel length.—1.9 cm to 2.0 mm.

Lenticel width.—<1 mm.

Lenticel shape.—Flat.

Lenticel color.—Greyed-orange 165C.

Lenticel density per cm².—0 to 6.

One year old shoot:

Length.—70 cm to 79 cm.

Diameter.—8.0 mm to 9.1 mm.

Pubescence.—Absent.

Color.—Greyed-red 178A.

Lenticel length.—<1 mm.

Lenticel width.—<1 mm.

Lenticel shape.—Round.

Lenticel color.—Greyed-orange 165B.

Lenticel density per cm².—0 to 8.

Leaves:

Shape.—Alternate, even-pinnately compound.

Length.—18.1 cm to 25.6 cm.

Width.—12.1 cm to 15.6 cm.

Length/width ratio.—1.2:1.

Leaflet length.—7.1 cm to 8.2 cm.

Leaflet width.—1.8 cm to 2.6 cm.

Blade margin.—Entire.

Apex shape.—Acute.

Base shape.—Attenuate.

Color of upper surface.—Green NN137B.

Color of lower surface.—Yellow-green 146B.

Attitude in relation to shoot.—Outward.

Petiole:

Length.—3.8 cm.

Diameter.—3 mm to 4 mm.

Color.—Greyed-red 178A.

Disease resistance/susceptibility: Tolerant of *Verticillium* wilt.

Pest resistance/susceptibility: None observed to date.

The invention claimed is:

1. A new and distinct pistachio tree named '19PaPi-SY' substantially as illustrated and described herein.

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FIG. 1

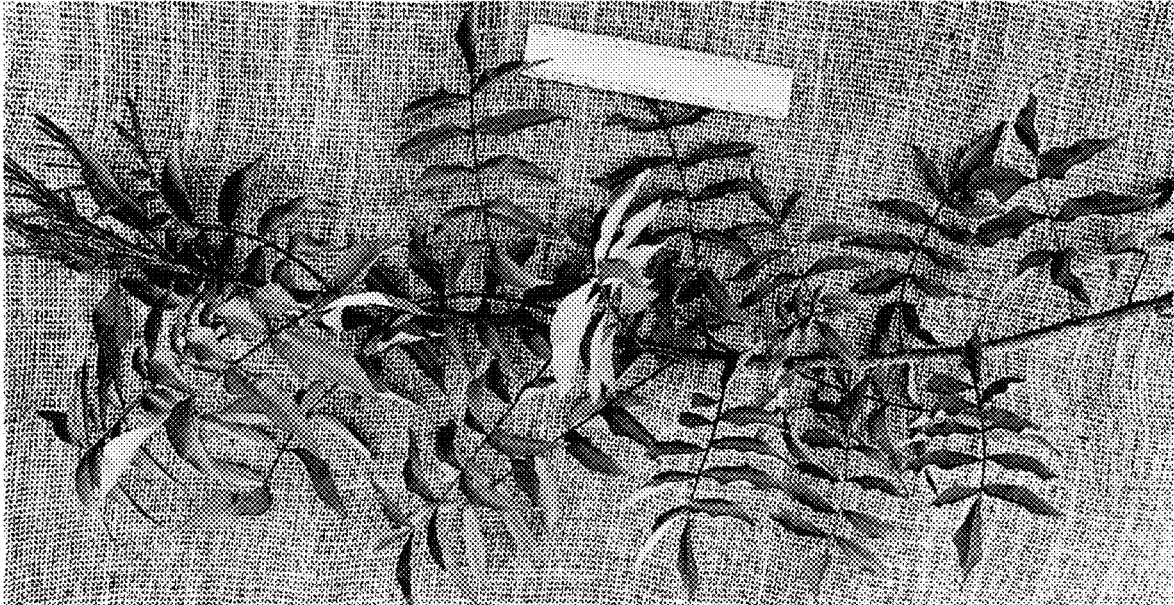


FIG. 2

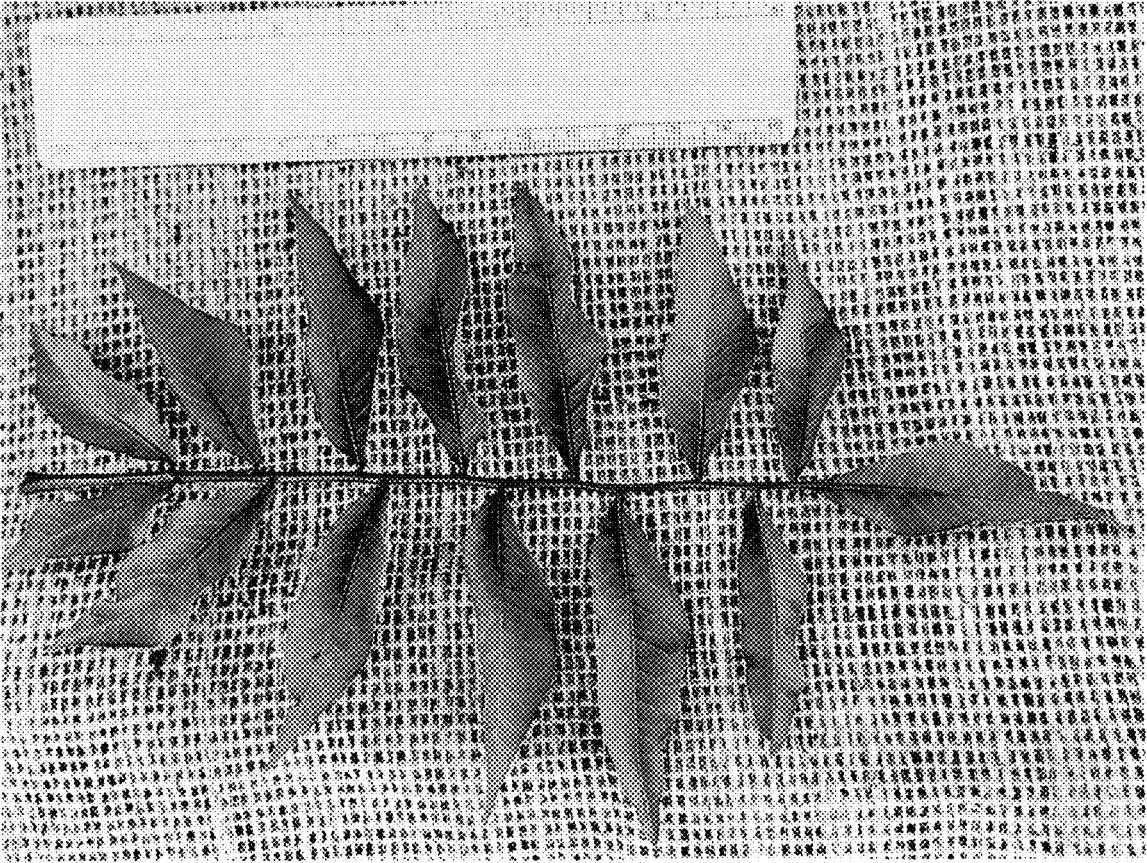


FIG. 3

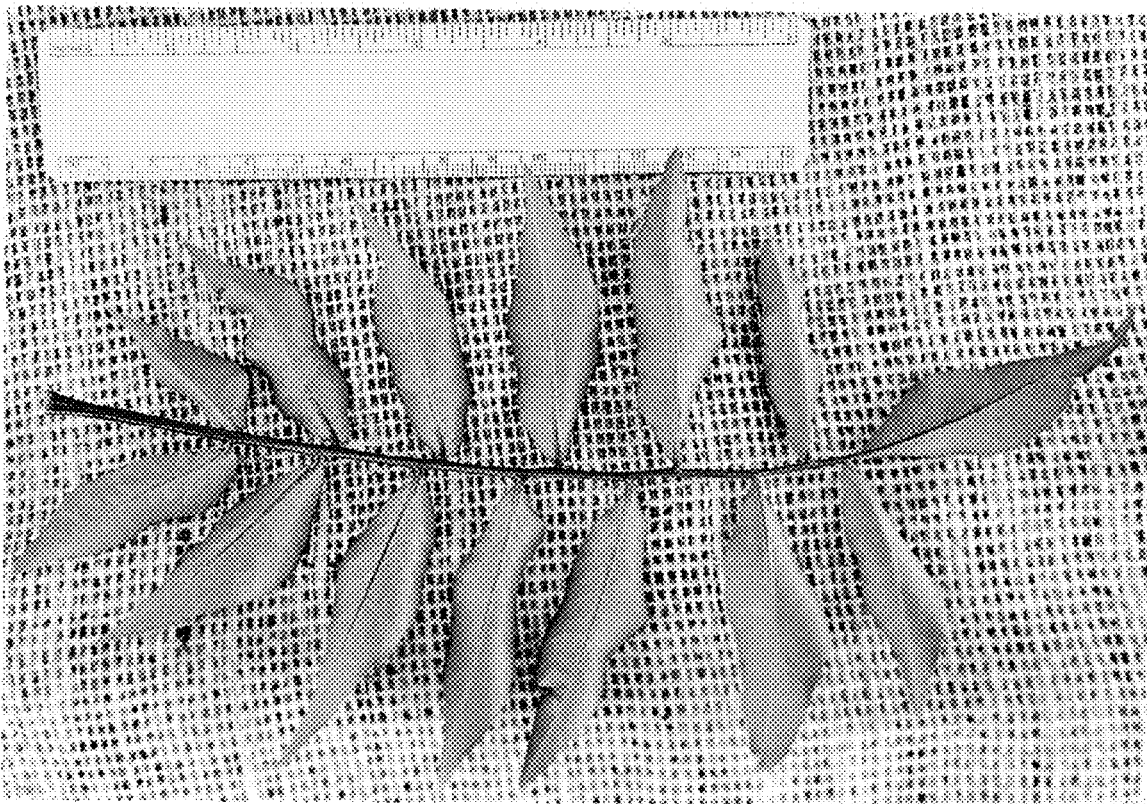


FIG. 4