

[54] AVOCADO TREE CALLED THOMAS

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[57] ABSTRACT

A new and distinct rootstock variety of avocado tree characterized by its high field resistance to *Phytophthora* root rot caused by *Phytophthora cinnamomi*. This variety has the highest level of resistance of any rootstock currently identified. It is characterized by relative ease of propagation using the etiolation method and graft compatibility with commercial scion varieties, including 'Hass', 'Gwen', 'Pinkerton', 'Fuerte', 'Bacon' and 'Zutano'.

1 Drawing Sheet

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DESCRIPTION

This invention relates to a new and distinct rootstock variety of avocado tree (*Persea americana* var. *drymifolia*) designated 'Thomas'.

'Thomas' is a Mexican avocado tree recovered and asexually reproduced from the rootstock of a large Fuerte tree growing in Escondido, San Diego, Calif., which had been the subject of observations for root rot resistance. 'Thomas' has been tested at the University of California, Riverside and at South Coast Field Station, Irvine, Calif. for resistance to *Phytophthora* root rot caused by *Phytophthora cinnamomi*. It has also been tested for root rot resistance in various avocado groves in Southern California.

In the drawings:

FIG. 1 shows the typical mature green fruit of the 'Thomas' variety, prior to ripening.

FIG. 2 shows the general shape and leaf color of the 'Thomas' selection.

'Thomas' has two primary characteristics that distinguish it. It has high field resistance to *Phytophthora* root rot. It is a Mexican variety and is well-adapted to California conditions.

Resistance to *Phytophthora cinnamomi* has been tested in many experiments with 'Thomas' in the field. 'Thomas' has consistently proved to be a superior rootstock with respect to *Phytophthora* root rot resistance. In an extremely severe test where the trees were deliberately inoculated with *Phytophthora* at planting time, 'Thomas' was evaluated as having the highest resistance among twelve selections tested. These selections included 'Duke 7', 'G755A', 'G755B', and 'Toro Canyon' which are currently available for commercial use.

TREES AND FOLIAGE

'Thomas', as is the case with the majority of avocado varieties, does not have distinctive foliage. The leaves

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have a distinct anise scent when crushed, which typifies the Mexican horticultural race.

FRUIT

5 Ovate; 150–200 grams. Typical Mexican type. Fruit color is purple with distinct speckling when ripe. With reference to the Munsell Color Charts typically 'Thomas' has a skin color (deep purplish red, Munsell Hue 7.5 RP 3/9). The season is about November through December.

The following chart represents ratings of the 'Thomas' variety compared with other root rot resistant varieties according to observations made at the Goleta Ranch Test Plot on May 30, 1985.

SELECTION	TOTAL # TREES	AVERAGE GROWTH DIFF.	AVERAGE % GROWTH INCR.
DUKE 7	88	22.44	57.69
G755C	88	21.19	58.25
TORO CANYON	87	21.47	62.78
D9	56	17.31	57.50
G6	55	22.55	59.93
THOMAS	54	23.53	63.12
G755A	32	24.58	61.16
G755B	28	22.80	60.23
G6#1	30	11.96	49.79
BORCHARD	30	18.74	59.66
HUNTALAS	24	11.42	42.07
P1	23	14.40	52.98
P.3	29	14.82	54.89
P.6	27	14.10	50.87
P.par	11	18.17	59.97
BARR	21	18.65	55.68
DUKE 6	18	17.54	56.05
G1008	12	7.29	34.22

We claim:

1. The new and distinct rootstock variety of avocado tree herein described and illustrated and identified by the characteristics enumerated above.

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FIG. 1.



FIG. 2.

