

[54] APPLE TREE (COOP 12)

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[57] ABSTRACT

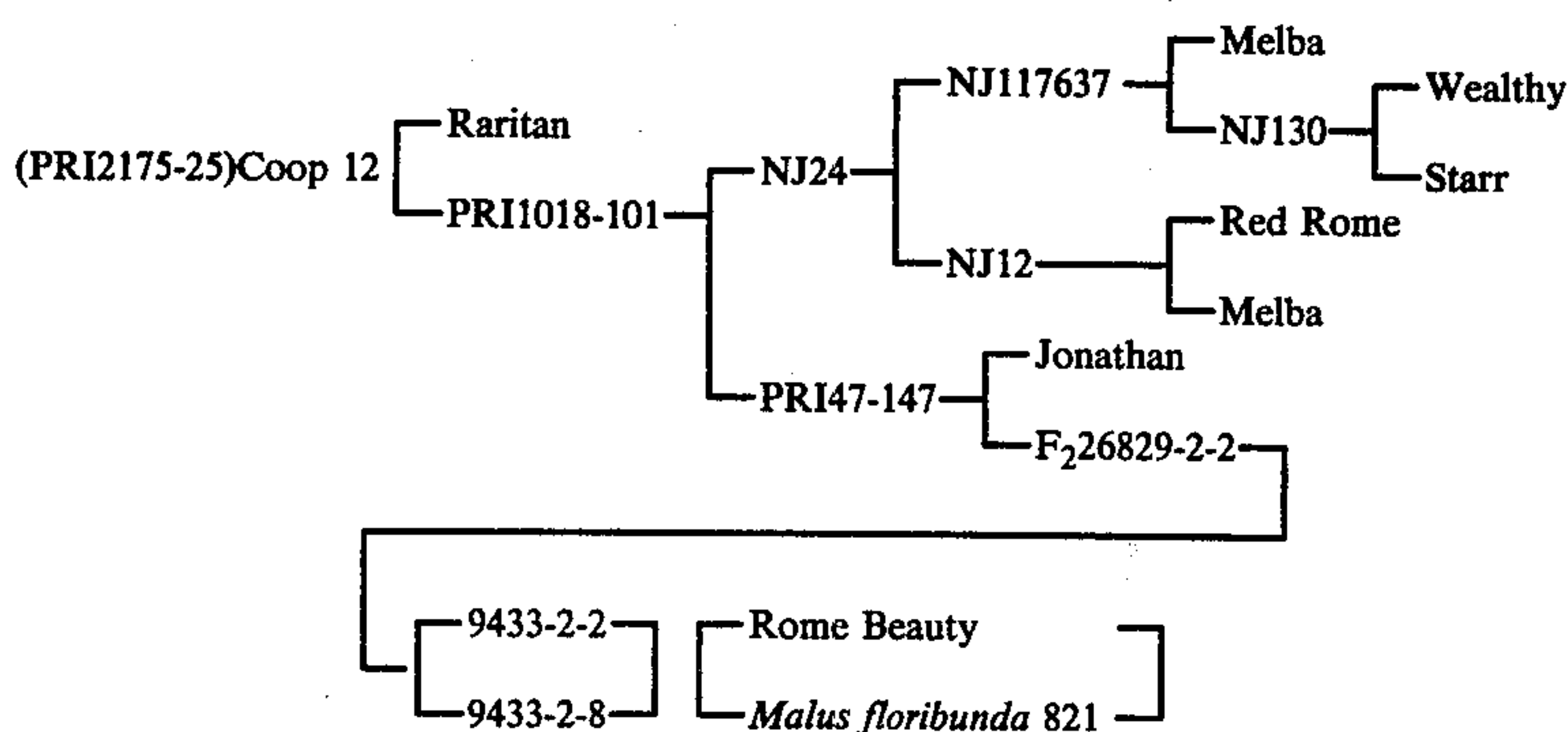
This invention relates to a new cultivar of apple tree which is scab resistant, and which matures about eight weeks before Delicious and four and one-half weeks before Prima.

5 Drawing Figures

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This invention is a new and distinct cultivar of apple tree. It was discovered by applicants in August, 1972, at Lafayette, Ind., in the course of an attempt to develop improved apple trees with high fruit quality and resistance to *Venturia inaequalis* (Cke.) Wint., the causal agent for the apple scab disease. The tree is a seedling of known percentage planted in 1966 in Block C of the Hinsley Breeding Orchard at the Horticultural Farm of the Purdue University Agricultural Experiment Station, Lafayette, Ind. In the above orchard, its position was Row 23, Tree 125, having the description PRI 2175-25 in Purdue University breeding records.

The present new cultivar, which is designated as Coop 12, is a seedling produced from crossing 'Raritan' as the seed parent and the seedling PRI1018-101 as the pollen parent in 1965 at New Brunswick, N.J. This new cultivar carries a genetic factor, V_f , inherited from *Malus floribunda* 821 which causes it to be resistant to infection caused by *Venturia inaequalis*. The presence of this genetic factor has been repeatedly proven by controlled greenhouse inoculation tests of the seedling and of its offspring produced from controlled crosses. The complete pedigree is shown below:



This new cultivar produces a vigorous tree with good annual crops. It is resistant to scab and moderately resistant to fireblight and powdery mildew.

The tree flowers just prior to 'McIntosh' and 'Priscilla' which is described in U.S. Plant Pat. No. 3,488. The apple fruit has good quality for the season. Fruit hold texture and quality two months or more at 34° F.

After observation, the selection was asexually propagated by grafting on seedling apple roots. The grafter

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material has maintained the desired characteristics after propagation.

The accompanying drawing (color photograph) shows a typical example of fruit and foliage of Coop 12. The following is a detailed description of the new cultivar with the color description according to the Horticultural Colour Chart issued by the British Colour Council in collaboration with the Royal Horticultural Society.

FLOWER

Pedicle: 3 cm (1½ inches) in length.

Corolla: 3.5 cm (1⅔ inches) in diameter at anthesis.

Color: Fuchsia purple from plate 28/1 (bud) to 28/3 (open flowers)

FRUIT

Shape: Ovate, regular.

Size: Axial diameter 6.7 cm (2¾ inches), transverse diameter 6.6 cm (2⅔ inches).

Color: Undercolor sulfur yellow (Plate 1/3); overcolor 90% geranium lake (Plate 20/1 to darker); faint stripes on light side.

40 Skin: Smooth, waxy with inconspicuous white dots, medium thick but not tough, no russetting.

Stem: Medium thick, 2 cm (¾ inch).

Cavity: Acute, medium depth, medium width, smooth.

Basin: Shallow and wide.

45 Calyx: Persistent, curved to upright, open.

Calyx tube: Urn shaped.

Stamens: Basal.

Plant 4,359

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Core line: Meeting.

Core: Medium, closed, small.

Carpels: Roundish, truncate, smooth.

Seed: Acuminate, not tufted.

Flesh:

Texture.—Medium, coarse grained, firm, breaking.

Quality.—Good, mild subacid, aromatic.

Color.—Straw Yellow (Plate 604/3).

Maturity season: Eight (8) weeks before 'Delicious'.

Keeping quality: Retains quality and texture two months or more at 34° F.

Use: Summer dessert apple.

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TREE

Tree: Upright and vigorous.

Leaves: Oval, double serrate margin, apex acute, base rounded, length to width ratio = 2.

In particular, our new cultivar apple is distinguished by its resistance to scab and by its dessert quality and appearance as a summer apple.

We claim:

1. A new and distinct apple tree substantially as shown and described particularly characterized by resistance to apple scab, good fresh fruit quality, smooth waxy skin, ability to maintain quality in storage, and maturity approximately eight (8) weeks before 'Delicious' and four and one-half (4½) weeks before 'Prima'.

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U.S. Patent

Dec. 26, 1978

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