

# 'Priscilla', a Fall Red Apple with Resistance to Apple Scab<sup>1</sup>

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'Priscilla' is a new red apple with resistance to apple scab, fire blight, and powdery mildew, ripening about 10 days after 'Prima', one week before 'Jonathan', and two weeks before 'Delicious' (Fig. 1).

'Priscilla' is the second apple cultivar to be introduced from the cooperative breeding program carried out by the Agricultural Experiment Stations of Indiana, Illinois, and New Jersey; the U. S. Department of Agriculture; and informally cooperative with a number of other states and countries (2). The prefix PRI in the name is an acronym formed from the three institutions involved, *viz.*, Purdue, Rutgers, Illinois. The name 'Priscilla' was chosen to honor Priscilla Hovde, wife of Frederick Boyd Hovde, seventh president of Purdue University. The apple was formerly designated as Co-op 4 by its breeding number 1659-1 (4). The selection at

present is widely planted under the Apple Breeders Cooperative testing program and under the Co-op Grower Trials in Indiana and Illinois.

The original seedling was planted in 1962 in the breeding orchards of Purdue University Agricultural Experiment Station, Lafayette, Indiana. It was produced from crossing the seedling 610-2 as the pollen parent and 'Starking Delicious' as the seed parent in 1961 in Door County, Wisconsin. The complete pedigree is shown in Fig. 2. Priscilla is heterozygous for a dominant genetic factor,  $V_1$ , inherited from *Malus floribunda* 821 which conditions high resistance to the apple scab organism *Venturia inaequalis* (Cke.) Wint. (1,3). The tree also shows field resistance to fire blight and powdery mildew.

The cultivar first fruited in September 1966. The fruit has since been examined from topworked or grafted trees at many locations in Indiana, Illinois, and New Jersey.

The tree is moderately spreading and vigorous. It flowers with or just after 'McIntosh'.

The fruit has fine dessert quality. The texture is crisp and the flavor is very pleasant. The attractive fruits typically have a 75-90% bright red color, principally as a blush over a light yellow ground. They ripen about 10 days after 'Prima', a week before 'Jonathan' and 2 weeks before 'Delicious'.

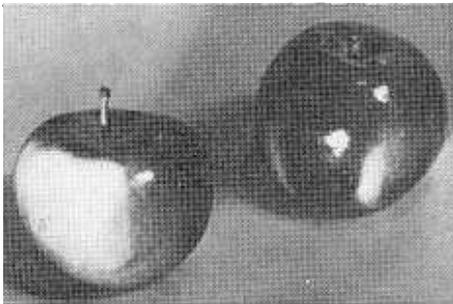


Fig. 1. Fruits of 'Priscilla'.

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cious'. There is very little tendency of the fruits to drop before maturity. The characteristic flavor is maintained 2-3 months or more at 34° F.

'Priscilla' has fertile pollen and should make a good pollinator for 'Prima'. This will permit solid blocks of scab resistant cultivars to be planted. It is expected to be adapted to the Midwest and Northern areas. It is our intention to apply for patent protection.

The following detailed description of the flower and fruit follows Zielinski (5) and uses the color designation according to the Horticultural chart used by the British Colour Council in collaboration with the Royal Horticultural Society.

**FRUIT**

**Shape:** Slightly oblate, regular.

**Size:** Axial diameter 5.8 to 6.0 cm (2½ to 2¾ inches), transverse diameter 7 to 7.6 cm (2¾ to 3 inches).

**Color:** Undercolor sap green (Plate 62/2 - 62/1) ripening to primrose yellow (Plate 601/2); overcolor 70 to 90% currant red (Plates 821 to 821/2) bluish.

**Skin:** Smooth, waxy with small white dots, medium thick but not tough; no russetting.

**Stem:** 3.2 cm (1¼ inch), medium thickness.

**Cavity:** Acute, deep, medium width, smooth.

**Basin:** Shallow and narrow.

**Calyx:** Persistent, curved to upright, closed.

**Calyx tube:** Urn-shaped.

**Stamens:** Basal.

**Core Line:** Meeting.

**Core:** Medium, closed, small.

**Carpels:** Elongated, mucronate, smooth.

**Seed:** Acute, not tufted.

**Flesh:** Texture: Medium grained, crisp, breaking. Quality: Very good, mild sub-acid, aromatic. Color: Primrose yellow (Plate 601-3).

**Maturity Season:** 2 weeks before 'Delicious'.

**Keeping Quality:** Retains quality and texture 2-3 months or more at 34° F.

**Use:** Very good dessert apple.

**TREE**

**Tree:** Moderately spreading and vigorous. Frequently terminal growth is determinate ending in a flower bud, occasionally the following year's growth is bifurcated.

**Leaves:** Oval, crenate margin, apex acute, base slightly cordate; length to width ratio = 1.5.

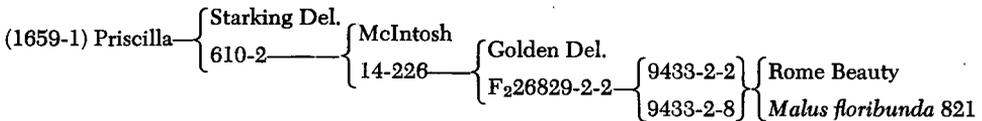


Fig. 2. Pedigree of 'Priscilla'.

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