

University, New York State Agric. Exp. Station, Department of Horticulture, Geneva, New York 14456-0462, United States. Received 06/24/1985.

PI 589251. *Malus domestica* Borkh.

Henrietta Crosby. Pedigree - *M. x arnoldiana* x *M. pumila* 'Neidzwetzkyana' originated 1939; introduced 1947. Comments:: Flowers; single; 45 mm in diam; pink; very attractive; Fruit; skin dark red; shape round; size 25 mm in diam; flesh red; flavor astringent. Leaves; greenish-bronze. Tree: vigor medium; fruits drop early; strongly biennial. Flower- ing crab.

The following were donated by Roger D. Way, Cornell University, New York State Agric. Exp. Station, Department of Horticulture, Geneva, New York 14456-0462, United States. Received 06/24/1985.

PI 589252. *Malus hybrid*

Rosedale. Pedigree - Penn State received from Highmoor Farm, U. Maine, Monmouth, ME. Comments:: Flowers: Blooms very early with Dolgo, before McIntosh; single; pink fading to whitish; attractive. Fruit: size very small 25 mm; skin 70% red; blushed; shape round; inedible; ripening season early September, 4 wks before Delicious; Deciduous calyx; resembles Eleyi. Tree: somewhat small; spreading; productive; leaves bronze colored. Purple flower ornamental crab. --R.D. Way, 1992.

PI 589253. *Malus x atrosanguinea* (Spaeth) C. Schneider

Carmin Crab. Pedigree - *M. halliana* x *M. sieboldii*; introduced into US by Arnold Arboretum in 1889. Comments:: Flowers: single; 25 mm wide; light red fading to pink. Fruit: small, 10 mm; skin 50% yellow, 30% orange, 20% red; long stems; not showy. Leaves: very dark green, 50% are lobed. Tree: annual bearer. Pink flowers.

The following were developed by Lorne J. Doud, Wabash, Indiana, United States. Donated by Roger D. Way, Cornell University, New York State Agric. Exp. Station, Department of Horticulture, Geneva, New York 14456-0462, United States. Received 06/24/1985.

PI 589254. *Malus domestica* Borkh.

Doud Golden Delicious 2-4-4-4. Pedigree - Golden Delicious bud mutation; discovered in 1948; never introduced into the commercial apple trade. Comments:: Fruit: very large, up to 100mm; otherwise like Golden Delicious. Tree: a periclinal cytochimera 2-4-4-4-; breeds like a tetraploid; chimeral nature determined at New York State Agr. Expt. Sta.; of possible use in breeding; cracks in the bark develop broad spirals up the tree trunk. 2-4-4-4 chromosomal chimera of Golden Delicious.

The following were developed by E. J. Gilbert, Parker, Washington, United States. Donated by Roger D. Way, Cornell University, New York State Agric. Exp. Station, Department of Horticulture, Geneva, New York 14456-0462, United States. Received 06/24/1985.

PI 589255. *Malus domestica* Borkh.

Redspur Delicious. Pedigree - Whole-tree red-fruited, spur growth habit mutation of Stark- ing Delicious; discovered about 1954; intro. 1957. Comments:: Fruit: indistinguishable from Starking Delicious, except redder. Tree: spur growth habit, about 2/3 standard tree size. Red fruited, spur growth mutation of Starking Delicious.

The following were collected by W.P. Wheeler. Developed by Cornell University, New York Agr. Exp. Station, Geneva, New York 14456, United States