

14456-0462, United States. Received 05/02/1986.

PI 589313. *Malus tschonoskii* (Maxim.) C. Schneider

Collected in Unknown. Japan; introduced into US by Arnold Arboretum in 1892. Comments:: Flowers: single; large, 30 mm wide; petals small; white; not ornamental. Fruit: 20-30 mm; 70% red, blush pattern of color; oblate; grit cells. Immature leaves white, mature leaves and twigs heavily pubescent both top and bottom; leaves orange scarlet in fall. Axillary buds very large. Tree: very susceptible to fire blight, sometimes kills trees. Species very uncommon. Only one clone known. Pubescent leaves and twigs; not ornamental. R.D. Way, 1991.

The following were developed by Arnold Arboretum, The Arborway, Jamaica Plain, Massachusetts 02130, 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 05/02/1986.

PI 589314. *Malus domestica* Borkh.

Barbara Ann. Pedigree - Dorothea [*Malus arnoldiana* (*M. baccata* x *M. floribunda*) x *M. halliana* cv. *parkmanii*] x *M. purpurea*. Introd. in 1966. Comments:: Flowers: Double (12-15 petals), deep purplish pink, fading to a lighter purplish pink. Approx. 4.5 cm across. Fruit: Purplish red, approx. 1.2 cm. in diam. one of the best flowering crabs. Leaves and inner wood reddish. Tree: open branching. Ornamental flowering crab.

The following were developed by Herman W. Smith, Omaha, Arkansas, 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 05/02/1986.

PI 589315. *Malus domestica* Borkh.

Delistein. Pedigree - Unknown, thought to be Delicious x Gravenstein (triploid); discovered late 1920's; introd. about 1940. Comments:: Fruit: size large, 70-80 mm; skin 30-60% red; color pattern splashed; shape conic; flesh soft, cream-colored; flavor subacid; eating quality good; harvest season late September. Tree: productive; biennial; fruits hang to tree; diploid. Mid-season, partially red, large.

The following were developed by Graydon Templin, Manson, 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 05/02/1986.

PI 589316. *Malus domestica* Borkh.

Empress Spur Golden Delicious. Pedigree - Golden Delicious but mutation, spur growth habit; discovered 1962; introduced 1965; assigned to Columbia Basin Nursery, Quincy, WA. Comments:: Fruit: indistinguishable from Golden Delicious, except possibly somewhat more russet. Tree: spur growth habit; needs more nitrogen fertilizer than Golden Delicious to maintain adequate tree vigor. A spur of Golden Delicious.

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 05/02/1986.

PI 589317. *Malus florentina* (Zuccagni) C. Schneider

Collected in Unknown. Italy. Pedigree - Introduced into U.S. about 1897. Comments:: Flowers: single; 15 to 20 mm; white; very late