‘Helen Taft’ and ‘Abigail Adams’ Flowering Cherries

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Ornamental flowering cherry trees (*Prunus* L. species) are popular landscape plants, made famous in the United States by the historic Tidal Basin cherries planted in Washington, DC, in 1912. Planted primarily for their spring bloom, flowering cherries are used as street or shade trees in commercial and residential landscapes and are also valued for their fall foliage as well as ornamental bark. Approximately 1.2 million flowering cherry trees are sold each year in the United States with an estimated total sales of \$32 million (USDA, National Agricultural Statistics Service, 2010).

The U.S. National Arboretum has an ongoing breeding program aimed at broadening the genetic base of ornamental cherry trees by developing new cultivars with disease and pest resistance, tolerance to environmental stresses, and superior ornamental characteristics. Previous releases from our program include *Prunus* ‘Dream Catcher’ and ‘First Lady’ (Pooler, 2007). This report documents our two newest releases, *Prunus* ‘Helen Taft’ and *P. campanulata* ‘Abigail Adams’. ‘Helen Taft’ was introduced in 2012 to commemorate the 100th anniversary of the Japanese gift of cherry trees planted around the Tidal Basin in Washington, DC. The name recognizes the role that former First Lady Helen Taft played in this historic planting. ‘Abigail Adams’ was released in 2013 as a germplasm to enable wider use in plant breeding programs.

Origin

‘Helen Taft’ resulted from a controlled hybridization made in 1981 using *P. yedoensis* Matsum. (Yoshino cherry) and *P. campanulata* Maxim. (Taiwan cherry). The seed parent came from a cutting of an original Tidal Basin tree that was planted in 1912 during a ceremony by the Japanese Ambassador’s wife, Viscountess Iwa Chinda, and First Lady Helen Herron Taft. The pollen came from a selection of *P. campanulata* growing in the Gloster Arboretum in Gloster, MS. ‘Helen Taft’ was selected for further evaluation and propagated by own-root cuttings in 1988 and sent to cooperators in Alabama, Florida, Maryland,

Massachusetts, Minnesota, Mississippi, New Jersey, Tennessee, Texas, and Virginia for evaluation of field performance in 1992.

P. campanulata ‘Abigail Adams’ was observed by USDA botanist Roland Jefferson on a 1986 collecting trip to Taiwan. At Jefferson’s request, scions from this cultivated plant were sent to the United States by the Department of Forestry, Chinese Culture University, Yang-Ming-Shan, Taipei, Taiwan, in 1987. A grafted plant was released to the U.S. National Arboretum from the USDA-ARS Plant Germplasm Quarantine Office in 1998 (collection number Q26654). Since then, this accession has been used in multiple crosses as part of the flowering cherry breeding program at the U.S. National Arboretum. It is being released primarily because of its potential value as a germplasm rather than its performance as a cultivar per se.

The names ‘Helen Taft’ and ‘Abigail Adams’ were registered in 2013 with the International Registration Authority for Unassigned Woody Genera (Susan Pell, Brooklyn Botanic Garden, Brooklyn, NY) in accordance with the International Code of Nomenclature for Cultivated Plants (Brickell, 2009). Herbarium-type vouchers collected by the author will be deposited in the U.S. National Arboretum Herbarium.

Description

Prunus ‘Helen Taft’ (National Arboretum No. NA61128, PI No. 664076) was selected

for its vigorous growth, large pale pink flowers, and ease of production. It is a deciduous upright tree with a spreading crown, reaching both a height and width of 10 m after 30 years of growth. It is most comparable to its female parent, *P. yedoensis*, except for its larger size and noticeably pink flowers. Flowers (Fig. 1A) are pale pink [Royal Horticultural Society (RHS) 63C (Royal Horticultural Society and Flower Council of Holland, 1986)] and open in early April in Washington, DC, at approximately the same time that the female parent, *P. yedoensis*, begins to bloom. Flowers turn darker pink (RHS 70A) in the center as they mature. Flowers are single, borne in clusters of four to five. Petals are overlapping, elliptical, and notched, each ≈1.5 cm long and 1.3 cm wide. Mature leaves are broadly elliptical to obovate, up to 11 cm long × 6.5 cm wide, acuminate at the tips, obtuse at the base, and have doubly serrulate margins. The adaxial (upper) leaf surface is dark green (RHS 137A), smooth, and somewhat glossy, and the abaxial (lower) surface is lighter (RHS 137C). Petioles are slender, glandular, and 1.5 to 1.75 cm long.

Prunus campanulata ‘Abigail Adams’ (National Arboretum No. NA69013, PI No. 667657) was selected for its dark pink semi-double flowers, which are rare for this species. Because it is not reliably cold-hardy in Washington, DC, it has not been tested in the field nor has it been sent for evaluation at other locations, so data on plant growth rate, habit, and landscape performance are not available. In climates to which it is adapted, the species generally grows to 7 m tall (Krussmann, 1986). Flowers (Fig. 1B) are very dark pink (RHS 60A) in bud and open to dark pink (RHS 64B). In an overwintering polyhouse environment, flowers of ‘Abigail Adams’ open a few days later than other accessions of the species. Flowers are campanulate, semidouble, each with 15 to 20 petals, approximately five modified petal/stamens, and five to 10 functional stamens. Flowers are borne in clusters of three to four with groupings of seven to 10 clusters. Petals are ≈1.2 cm long and 0.8 cm wide. Mature leaves are elliptic, 8 to 9 cm

Fig. 1. (A) Flowers of ‘Helen Taft’; (B) flowers of ‘Abigail Adams’; and (C) whole plant of ‘Helen Taft’.

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long $\times$ 3.5 to 4 cm wide, acuminate at the tips, obtuse at the base, with serrulate margins.

Culture and Use

Statements and recommendations on plant performance and culture for 'Helen Taft' are based primarily on plant performance in replicated trials at the U.S. National Arboretum in Washington, DC. 'Helen Taft' is adaptable to the same cultural conditions as other flowering cherry cultivars and will grow and flower best in full sun in well-drained but moist, slightly acidic soil. It is hardy in USDA zones 6 to 8 (USDA Plant Hardiness Zone Map, 2012) and heat-tolerant to American Horticultural Society (AHS) zone 9 (AHS, 1997). Some damage to flower buds may occur in severe zone 6 conditions. 'Helen Taft' propagates readily from semihardwood cuttings under mist using 1000 to 3000 ppm indole-3-acetic acid in talc. It is well suited to container or field production and will usually produce flowers 2 years after vegetative propagation. Because of its large size and somewhat spreading crown (Fig. 1C), 'Helen Taft' can be used as a small shade tree or specimen plant, street tree in residential or

highway plantings, or a spring accent plant in larger residential, park, and commercial landscapes. Its vigorous growth, large pale pink flowers, and ease of production make it a valuable addition to ornamental cherry germplasm in the United States.

'Abigail Adams' was released primarily as a germplasm and has not been tested in the field. It can be propagated from juvenile softwood cuttings or by grafting; cutting propagation from mature plants can be challenging. Because it has fertile flowers, this selection may be valuable as breeding material for its early bloom, low chilling requirement, and adaptation to warmer climates as well as its striking floral display.

Availability

Like all other woody ornamental plants released from the National Arboretum, 'Helen Taft' and 'Abigail Adams' are not patented so may be propagated and sold freely. Plants of 'Helen Taft' are available from a limited number of wholesale nurseries (source list available on request). The National Arboretum does not have stock of these cultivars available

for general distribution but can supply budwood or unrooted cuttings to professionals wishing to propagate, test, or use these plants.

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