'Betsy Ross', 'Old Glory', and 'Declaration' Lilacs

Margaret R. Pooler¹

U.S. Department of Agriculture, Agricultural Research Service, U.S. National Arboretum, Floral and Nursery Plants Research Unit, 3501 New York Avenue, NE, Washington, DC 20002

Additional index words. *Syringa*, *Oleaceae*, ornamental plant breeding, plant introduction

Lilacs (Genus *Syringa* L.; Family *Oleaceae* Hoffmanns. & Link) are favorite garden plants in temperate regions throughout the world, prized for their showy fragrant early spring bloom and hardiness in the landscape. Native to East Asia and Southeast Europe (Krüssmann, 1978), lilacs were brought to North America with the first settlers and were sold by nurseries as early as 1800 (Fiala, 1988). Today, over two million lilacs are sold annually in the United States with a wholesale value of over \$13 million (NASS, 1998). At least 2000 named cultivars exist, primarily of the common lilac, *S. vulgaris* L. (Fiala, 1988).

The lilac breeding program at the U.S. National Arboretum was started in the 1970s by the late Donald R. Egolf with the objectives of developing lilacs that were adapted to warmer climates, had disease and pest tolerance, and had a showy fragrant floral display. Controlled hybridizations using several species, including *S. oblata* subsp. *dilatata* (Nakai) P.S. Green & M.C. Chang, *S. vulgaris* L., and *S. xhyacinthiflora* Rehder, have resulted in selections with various habits, flower colors, and environmental adaptations. Reported here are basic botanical descriptions and origins of the first three cultivars resulting from this program, which were released in 2000 ('Betsy Ross') and 2006 ('Old Glory' and 'Declaration').

Origin

'Betsy Ross' was selected from progeny of a controlled hybridization made in 1977 using an unidentified *Syringa* from Highland Park, Rochester, NY, as the female parent and *S. oblata* Lindl. collected in China (National Arboretum No. NA36751; PI 391403) as the male parent. It was initially selected for replicated field trials by D. R. Egolf in 1984. After superior field performance at the U.S. National Arboretum, over 100 plants were sent between 1992 and 1997 to nursery and university cooperators for evaluation in Alabama, Georgia, Maryland, Massachusetts, Minnesota, Michigan, Mississippi, New Jer-

sey, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Washington. Based on information provided by these cooperators, 'Betsy Ross' was released in 2000.

Both 'Old Glory' and 'Declaration' were derived from progeny of a controlled hybridization made in 1978 between *Syringa* 'Sweet Charity' and *S. xhyacinthiflora* 'Pocahontas'. The plants were selected for replicated field trials in 1984, and plants were propagated and sent between 1992 and 1998 for evaluation to cooperators in the states listed previously plus Nebraska. Based on field and container performance in these locations, 'Old Glory' and 'Declaration' were named and released in 2006.

The cultivar name 'Betsy Ross' was registered in 2001 (Vrugtman, 2002), and the names 'Old Glory' and 'Declaration' were registered in 2007 with the International Cultivar Registration Authority for *Syringa* (Freek Vrugtman, Royal Botanical Gardens, Ontario, Canada) in accordance with the International Code of Nomenclature for Cultivated Plants (Brickell et al., 2004). The names were selected as part of a "U.S. flag" series of lilacs from the National Arboretum. Herbarium type vouchers of each of these cultivars collected by the author have been deposited at the U.S. National Arboretum Herbarium.

Description

Syringa 'Betsy Ross' (NA62973; PI 596517) is a deciduous, rounded multi-stemmed shrub that has reached a height of 3 m and a width of 4 m in 16 years of growth in Washington, DC (USDA Hardiness Zone 7b; USDA, 1990; Fig. 1). Mature leaves are broadly ovate, up to 13.5 cm long × 11 cm wide, acuminate at the tips, and cordate at the base with entire margins. Foliage is green [Royal Horticultural Society (RHS) 137A–B; Royal Horticultural Society and Flower Council of Holland, 1986] on the adaxial (upper) leaf surface changing to yellow green (RHS 153C–D) in the fall. Flower buds are pale cream (RHS 150D), 1.7 cm long × 0.6 cm wide, opening to pure white single florets 1.7 cm long × 2.5 cm wide. Occasionally florets have five petals instead of four. Thyrses are up to 35 cm long × 15 cm wide. Individual

seed capsules are up to 1.6 cm long and 0.8 cm wide before splitting.

Syringa 'Old Glory' (NA62974, PI 641803) is a deciduous, rounded multistemmed shrub that has reached a height of 3.5 m and a width of 4 m in 25 years of growth in Washington, DC (Fig. 1). Mature leaves are similar in shape to those of 'Betsy Ross', up to 11.5 cm long × 10.5 cm wide. New foliage emerges burgundy (RHS 187A) to brown (RHS 200A) on the adaxial leaf surface changing to green (RHS 137A) at maturity and then to yellow-green (RHS 153D) in the fall. Flower buds are red-purple (RHS 71A), 1.3 cm long × 0.4 cm wide, opening to purple (RHS 77A outer edges, RHS 83B inner floret) single florets 1.5 cm long × 2.5 cm wide. Thyrses are up to 20 cm long × 9 cm wide. Seed capsules are up to 1.7 cm long × 1 cm wide before splitting.

Syringa 'Declaration' (NA62975, PI 641804) is a deciduous, open, broadly vase-shaped shrub that has reached a height of 2.6 m and a width of 2.0 m in 25 years of growth in Washington, DC, but grows larger in cooler areas where it is better adapted. Mature leaves are similar in shape to those of 'Betsy Ross' and 'Old Glory', up to 12.5 cm long × 8 cm wide. New foliage emerges with a red-purple (RHS 59A) midrib with mature foliage dark green (RHS 139A) on the adaxial surface changing to deep burgundy (RHS 187A) in the fall. Flower buds are red-purple (RHS 71A), 1.5 cm long × 0.6 cm wide, opening to purple (RHS 77A) single florets 1.2 cm long × 2.1 cm wide (Fig. 1). Thyrses are up to 30 cm long × 14 cm wide. Seed capsules are up to 1.2 cm long × 0.7 cm wide before splitting.

Culture

Statements and recommendations on plant performance and culture are based on information provided by nursery and university cooperators in multiple locations looking at three plants per site as well as plant performance in replicated trials at the U.S. National Arboretum. Like other lilac cultivars, 'Betsy Ross', 'Old Glory', and 'Declaration' grow well in moderately fertile, well-drained soil in open, sunny sites with good air circulation. A soil pH of 6.0 to 7.5 is recommended. 'Betsy Ross' was selected for its adaptation to warmer climates and field tolerance to powdery mildew [*Microspheera syringae* (Schwein.) Magnus] and is recommended for USDA Zones 5 to 8. 'Old Glory' has shown good field tolerance to powdery mildew and is recommended for USDA Zones 5 to 7. 'Declaration' performs best in traditional cooler lilac-growing climates (Zones 4 to 6).

All three cultivars can be propagated from vigorously growing semihardwood cuttings taken soon after flowering using intermittent mist and a rooting compound containing 3000 to 5000 ppm indole-3-butyric acid (IBA). They can also be grafted or micro-propagated. Plants are suitable for either field or container production and will usually produce flowers on small plants the first summer after propagation.

Received for publication 5 Oct. 2007. Accepted for publication 11 Nov. 2007.

¹To whom reprint requests should be addressed; e-mail Margaret.Pooler@ars.usda.gov

Fig. 1. *Syringa* 'Betsy Ross' (left), 'Old Glory' (middle), and 'Declaration' (right).

Outstanding Characteristics and Uses

All three cultivars are well suited for use as a single specimen plant, an early-blooming focal point in a mixed shrub border, as a deciduous hedge or screen, or mass-planted in large areas. 'Betsy Ross', the first lilac cultivar to be released from the U.S. National Arboretum, was selected for its abundant fragrant, pure white flowers, rounded growth habit, and adaptability to warmer climates. 'Old Glory' was selected for its relatively slow-growing rounded habit, clean medium-green foliage, and fragrant bluish purple flowers. 'Declaration' is recommended for traditional cooler lilac-growing regions, where it displays large, fragrant, striking dark reddish purple inflorescences, outstanding deep burgundy fall color, and an open, upright growth habit.

Availability

Like other woody ornamental plants released from the National Arboretum, 'Betsy Ross', 'Old Glory', and 'Declaration' are not patented so may be propagated and sold freely. Plants are available from wholesale, mail-order, and a limited number of retail 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 nurseries wanting to propagate these plants.

Literature Cited

- Brickell, C.D., B.R. Baum, W.L.A. Hettterscheid, A.C. Leslie, J. McNeill, P. Trehane, F. Vrugtman, and J.H. Wiersema. 2004. International code of nomenclature for cultivated plants. 7th Edition. International Society for Horticultural Science, Acta Horticulturae 647.
- Fiala, J.L. 1988. Lilacs—The genus *Syringa*. Timber Press, Portland, OR.
- Krüssmann, G. 1978. Manual of cultivated broad-leaved trees and shrubs. Vol. III, Pru-Z (translated 1986). Timber Press, Portland, OR.
- National Agricultural Statistics Service (NASS). 1998. 1998 Census of Horticultural Specialties. 7 Aug. 2007. <<http://www.nass.usda.gov/census/census97/horticulture/horticulture.htm>>.
- Royal Horticultural Society and Flower Council of Holland. 1986. RHS colour chart. RHS, London.
- U.S. Department of Agriculture (USDA). 1990. Plant hardiness zone map. USDA Misc. Publ. 1475.
- Vrugtman, F. 2002. Lilac cultivar name registration 2001. HortScience 37:1145.