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# *Hibiscus syriacus* 'ORSTHIB5x1' Petite Pink Flamingo™ Althea

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*Hibiscus syriacus* (althea or rose of sharon) is a broadly adaptable shrub (US Department of Agriculture hardiness zones 5–9) that is easy for growers to produce, is successful in most gardens, and provides a long flowering season with a wide range of growth habits, flower forms, and colors. There are dozens of althea cultivars on the market, including 'Aphrodite' (Egolf 1988), 'Diana' (Egolf 1970), 'Helene' (Egolf 1981), and 'Minerva' (Egolf 1986) introduced from the US National Arboretum tree and shrub breeding program. These cultivars were purported to be seedless to address the potential weediness of the species. Although it may not be invasive, it is a nuisance in gardens, and its copious seedling production requires growers to spend time and money spraying out production areas to control seedlings. Furthermore, seedling growth in parent stock blocks is prolific such that there is a high potential to create confusion when collecting cuttings for propagation. There is a possibility these seedlings have been propagated inadvertently in the industry. This mistaken identification during propagation likely has led to mislabeling; for instance, there are both 4*x* and 6*x* cytotypes of 'Aphrodite' and 'Minerva' being grown in the trade (Lattier et al. 2019). It is unclear how multiple cytotypes arose, but it could have been the result of the low frequency of seedlings produced by the original cultivar (i.e., 6*x* 'Aphrodite' or 'Minerva') or perhaps by planting truly seedless (hexaploid) cultivars in plots previously occupied by seeded cultivars.

More than a decade of testing available cultivars, including ploidy analysis and testing seed production (fecundity) through controlled crossing and open pollination in fields, has shown that most cultivars are highly fertile tetraploids (4*x*), but that hexaploids (6*x*) such as Pink Giant ('Flogi') had reduced fertility (Lattier and Contreras 2022). The availability of multiple cytotypes presented the opportunity to make interploidy crosses to develop 5*x* plants with reduced fertility (Lattier and Contreras 2022). Pentaploid (5*x*) plants yielded 0.8 seed per pollination, whereas 4*x* plants yielded 10 seeds per pollination (Lattier and Contreras 2022). To date, we are unaware of any available cultivars that are 5*x*. The main attributes for which Petite Pink Flamingo™ was selected are seedlessness, its compact growth habit, and its dark-green foliage.

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## Origin

In 2013 we crossed a 4*x* cytotype received as 'Aphrodite' (internal accession 11-0215; 2C DNA content = 4.66 pg) with 6*x* Pink Giant (internal accession 11-0215; 2C DNA content = 6.97 pg) as cross 2013-017. The accession of 'Aphrodite' used as the female parent otherwise appeared to match the description of the cultivar and differed only in that it was fertile. The resulting seedlings were accessioned as H2013-017-XX, indicating the cross was made in year 2013, it was the 17th cross combination made that year, and the last number indicates the seedling number of that cross combination. The plant was accessioned and evaluated as H2013-017-15 (seedling 15 of cross 17 from year 2013). It has a 2C DNA content of 5.41 pg, which is consistent with pentaploidy in althea. In 2014, we propagated using semihardwood stem cuttings treated with 1000 ppm indole-3-butyric acid quick dip (Wood's Rooting Hormone; Earth Science Products Corp, Wilsonville, OR, USA) at Oregon State University and distributed unrooted cuttings to commercial nurseries for evaluation. We observed semihardwood cuttings root within 2 weeks, but as with other cultivars of the species, it can be rooted year-round, including dormant hardwood cuttings that root in less than 1 month. In addition to ease of propagation, it was found to grow well in container production, including observations finishing in 3.8, 11.4, and 18.9-L container sizes. It also has grown well in field production, producing densely branched, upright shrubs, such that it should be amenable to bareroot production. I have observed no set seed in the intervening years in either production system.

## Description

Petite Pink Flamingo™ is an upright to spreading shrub with erect branching (Fig. 1). It has dark-green foliage, whereas many cultivars of althea suffer from chlorotic foliage, especially during the early spring growing season in the Pacific Northwest. It is moderately vigorous but maintains a compact habit with a mature size of ~85 × 60 cm, with internodes averaging 2.2 cm. Leaves are 9.6 cm long (including petiole) and 4.3 cm wide, arranged alternately with distinct lobing, and are roughly rhomboidal in shape. Expanded leaves are Royal Horticultural Society (RHS) 137A adaxially and slightly lighter green (RHS 137B) below, abaxially (Royal Horticultural Society 2007). Colorimetry indicated leaves of Petite Pink Flamingo™ are darker than 'Aphrodite' as a result of its lower L value (33.1 compared with 36.9) in the CIE-Lab color space.

Fig. 1. *Hibiscus syriacus* 'ORSTHIB5x1' PPAF Petite Pink Flamingo™ during commercial container production trials.

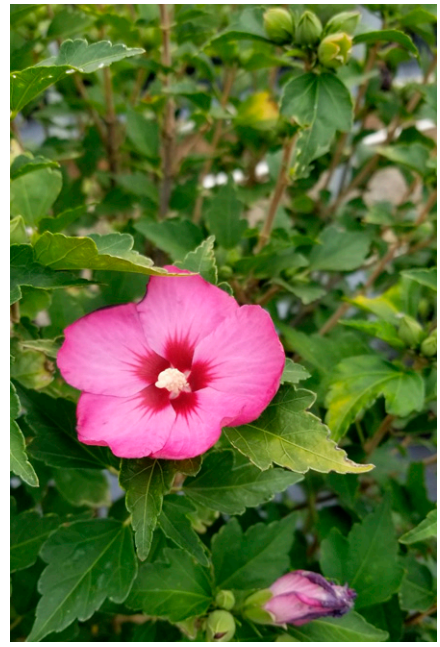

Fig. 2. Typical flower of *Hibiscus syriacus* 'ORSTHIB5x1' PPAF Petite Pink Flamingo™.

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Flowers are produced from mid to late summer in Corvallis, OR, USA, but will be earlier in warmer regions. They are single (one row of five overlapping petals) and 7.8 cm in diameter, which is smaller than 'Aphrodite', but they appear darker (Fig. 2). Petals appear dark pink, but match to the gray-purple group (RHS 186B) and have dark eyespots in the red-purple group (RHS 59B; Fig. 2). Each flower lasts 2 to 3 d, which is slightly longer than the standard for the species. Commercial input on flowering was that they are of acceptable size and are produced in sufficient numbers to meet aesthetic requirements. As a result of its pentaploid chromosome complement, it is seedless. We have observed no seed production during any year of observation, and its flowers are self-cleaning. It has acceptable to good flowering, but is not superior to available cultivars in this respect. There are other seedless cultivars in the market, but this is the first 5*x* cultivar.

I have observed no disease problems on Petite Pink Flamingo™, but make no claims of resistance to the leaf spot, blights, or canker mentioned in Dirr (2009), and I expect that it is susceptible to aphids, as are other cultivars. Althea roots easily from stem cuttings and is amenable to production. Stock plants of Petite Pink Flamingo™ yield many cuttings and will fit in well with existing cultivars.

A voucher was collected from a field-grown plant on 10 Oct 2023, was deposited in the Oregon State University Herbarium, and was accessioned as OSC-V-269793.

## Availability

Petite Pink Flamingo™ was released in 2022 by the Oregon Agricultural Experiment Station and a US plant patent was applied for. It is available for nonexclusive license from Oregon State University by contacting Denis Sather, Director of Licensing (denis.d.sather@oregonstate.edu), who may also provide a list of licensed nurseries from whom liners or finished plants may be purchased. Unrooted cuttings are available by contacting the author.

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