‘Adirondack’ Crabapple

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Malus × ‘Adirondack’ is a superior multiple-disease-resistant cultivar with a narrow obovate, upright-branched growth habit. Since there are relatively few crabapples with upright growth habit (i.e., ‘Centurian’, ‘Hennings’, ‘Sentinel’ and ‘Silver Moon’) that have variable disease resistance or tolerance, ‘Adirondack’ is a significant introduction for nursery production. ‘Adirondack’, like ‘Naragansett’ (1), the first U.S. National Arboretum introduction, combines disease resistance and landscape characteristics.

Origin

The initial thrust of the U.S. National Arboretum Malus breeding project was the isolation of germplasm resistant to the four major crabapple diseases. These diseases include the most commonly encountered apple scab [Venturia inaequalis (CKE) Went.], which causes spotting, premature defoliation, and corky fruit spots; the more sporadic but severe infection of fire blight [Erwinia amylovora (Burr.) Winsl. et al], which infects young shoots and branches and may kill the plant; the orange postules of cedar-apple rust [Gymnosporangium juniperivirginiana (Greyed Orange 176B)(3) maroon tinged (Grey Red 178A) maturing to dark grey (Grey 201A), puberulous when young, becoming glabrous, and with prominent lenticels. The alternate, leathery, dark green (Yellow Green 147A above and Yellow Green 147B beneath) leaves are at first tomentose, becoming glabrous, 9-15 cm long, 3-4 cm wide, elliptic, acuminate at apex, obtuse at base, margins serrate, and with petioles 2.5-4 cm long. The dark carmine (Red 54A) buds mature to a lighter red (Red 54B and Red 54C) and open to waxy, heavy-textured, wide-spreading, white with traces of red (Red 54A, 54B and 54C) florets, 4-4.5 cm in diameter, with petals 20-25 mm long and 15-17 mm wide, in cymose inflorescences 7-11 cm in diam, of five to seven florets (Fig. 2). The subglobose red (Red 45D) with half shaded to orange-red (Orange Red 32B to 34C) fruit are 1.3-1.5 cm in diameter, 1.6-1.7 cm long, in pendulous clusters 4-6 cm in diameter, with four to seven fruit on pedicels 1.5-1.8 cm long (Fig. 3).

‘Adirondack’ has a columnar growth habit, tight red buds for weeks prior to waxy white blooms in mid-April, attractive dark green foliage in summer, and pendulous orange-red fruit until December. The plant has pronounced vertical branch structure that after 13 years has developed into an obovate small tree. The individual red ball buds opening to waxy flowers and the orange-red fruit provide one perspective closeup and an entirely different mass display when viewed from a distance. The brilliantly colored, small fruit size minimizes litter and maintenance problems. The plant is hardy to Zone 4 (4).

The cultivar name ‘Adirondack’ has been registered by Longwood Gardens, the International Registration Authority for unassigned genera in accordance with the International Code of Nomenclature for Cultivated Plants—1980. (2) Herbarium specimens and photographs are on deposit in the U.S. National Arboretum Herbarium.

Culture

The cultural requirements of ‘Adirondack’ are the same as for other crabapples, and the plant is adaptable to diverse soil, moisture, and climatic conditions. Because of the dense-branched, compact, upright growth habit, the plant requires virtually no pruning. Likewise, due to the cultivar disease resistance, expenditures are eliminated for chemicals and spray application; thus, maintenance is reduced. ‘Adirondack’ can be propagated by budding, grafting, or cuttings. Most commercial production will be by the first two methods, but own-rooted propagations are easily made by softwood cuttings taken in May. These cuttings will root in 4 weeks to produce straight, vigorous 2- to 9 dm plants by autumn.
Outstanding characteristics and use

Crabapples are the most widely cultivated small landscape tree in northern United States and southern Canada—for mass spring flowers of about a week and prolonged vivid fruit display in autumn. 'Adirondack' not only provides superb display at both of these seasons, but also is most distinctive for the upright growth habit that displays the flowers, foliage, and fruit through the growing season and a picturesque branch outline in the dormant season. The statuesque growth habit provides the landscape architect with a plant for foundations of public buildings, formal garden design, specimen for space-limited situations, strong focal accent in the shrub border or residential garden, park and recreational area screen, roadside, street tree where shade is not important and overhead power lines impose height restrictions, and large containers for multiple use in public areas.

Availability

The U.S. National Arboretum releases 'Adirondack' but does not have stock of this cultivar available for general distribution. The plants increased by cooperating wholesale propagation nurseries are the source of plants. After 1988, plants will be distributed to cooperating arboreta, botanic gardens, and research institutions.

Literature Cited