Lagerstroemia

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Description

‘Acoma’, ‘Hopi’, ‘Pecos’, and ‘Zuni’ are the first semi-dwarf Lagerstroemia indica × L. fauriei Koehne cultivars that combine mildew resistance and a range of flower colors. Crape-myrtle, the common name of Lagerstroemia, is the most widely cultivated summer-flowering large shrub or small tree in the southern United States. The 4 prior U.S. National Arboretum L. indica × L. fauriei introductions—‘Muskogee’, ‘Natchez’, ‘Tuscaraora’, and ‘Tuskegee’—are small trees 7–10 m high (4–6), whereas those described herein are 4 semi-dwarf cultivars. ‘Acoma’, ‘Hopi’, ‘Pecos’, and ‘Zuni’ raise the total U.S. National Arboretum Lagerstroemia cultivar releases to 14 (2, 3).

Origin

Powdery mildew (Erysiphe lagerstroemiae E. West) resistant progeny with vigorous, upright stature were produced in 1965 by the hybridization of L. indica (susceptible) and L. fauriei, (resistant) plants (1). Selected F1 progeny were further hybridized with intermediate growth habit seedlings and cultivars in order to procure compact, mildew-resistant plants. Backcross to L. indica cultivars yielded seedling populations more mildew-susceptible than the original F1 hybrids, while hybridization of compact growth habit F1 seedlings yielded many mildew-resistant progeny. The seedlings remaining after controlled mildew inoculation under greenhouse conditions were field-planted. After 12 or more years of field appraisal, 4 semi-dwarf selections were propagated and distributed for regional trials and stock increase. These selections have been cultivar-designated ‘Acoma’, ‘Hopi’, ‘Pecos’, and ‘Zuni’.

Description

Lagerstroemia (indica × fauriei) ‘Acoma’, n.cv., NA 48472, PI 499815 (Fig. 1), was produced by the cross L. indica ‘Pink Ruffles’ × (L. indica × L. fauriei seedling) made in 1969. The deciduous, low-spreading, semi-pendulous, semi-dwarf, multiple-stemmed shrub has grown 3 m high and 3.4 m wide in 15 years. The 4- striate, glabrous, young branches are red-purple (Red Purple 59B) (8) above and tinged lighter red purple (Red Purple 70C) beneath, becoming grey brown (Greyed Green 197B) prior to light grey (Greyed Brown 199D) exposed by exfoliating bark of older branches and trunk. The semi-glossy, elliptic to obovate, acute at apex, obtuse to cuneate at base, young leaves are dark bronze-tinted, becoming dark green (137A above and 137C beneath), 4–7 cm long, 2.5–3.5 cm wide and with 1–2 mm petiole turning dull red (Greyed Red 181A) to dark purple red (Greyed Purple 184A) in autumn. The pendulous, long-tapered panicles are 15–19 cm long, 9–13 cm wide, with 90–150 pure white florets with pronounced golden anthers, each 3 to 4 cm in diameter with long-clawed, crinkled petals 1.5–2.0 cm long and 1.3–1.5 cm wide from late June to September. ‘Acoma’ is mildew-resistant, has recurrent bloom throughout summer, and is distinctive with semi-pendulous, low-spreading growth habit. This cultivar was selected in 1972.

Lagerstroemia (indica × fauriei) ‘Hopi’, n.cv., NA 52711, PI 499816 (Fig. 2), resulted from the cross of L. indica ‘Pink Lace’

Fig. 1. Semi-pendulous, white panicles and branches of ‘Acoma’ crape-myrtle.

Fig. 2. Compact growth habit and profuse flowering of ‘Hopi’ crape-myrtle.
ter, with long-clawed, crinkled petals 16–19 mm long and 10–14 mm wide from late June to late September. ‘Hopi’ has been the most cold-hardy of the semi-dwarf cultivars and has withstood temperatures of −30°C without winter injury. The plant, which was selected for introduction in 1975, is mildew resistant and has a prolonged flowering season with frequent recurrent bloom.

_Lagerstroemia (indica × fauriei)_ ‘Pecos’, n.c.v., NA 54977, PI 499823 (Fig. 3), was selected from the cross of [L. indica (Dwarf Red) × L. fauriei] × [L. indica (Dark Red) × L. fauriei] made in 1972. The globose, semi-dwarf, multiple-stemmed shrub has grown 2.4 m high and 1.8 m wide in 12 years. The 4-striate, glabrous, young branches are red-purple (Red Purple 60A) above to lighter tinge of red (Red Purple 58D) beneath, becoming grey (Grey 201B) prior to dark brown (Greyed Orange 175A) exposed bark by exfoliating older branches and trunk. The glossy, glabrous, young leaves are heavily tinged bronze (Red Purple 60A) becoming dark green (Yellow Green 147A above and Yellow Green 147B beneath), 5–6 cm long, 1.9–2.5 cm wide, elliptic to ovate, acute at apex, obtuse to cuneate at base, and with 1- to 2-mm petioles, turning maroon (Greyed Purple 183A) to dark purple red (Greyed Purple 184A) in autumn. The globose panicles are 15–20 cm long, 13–19 cm wide, with 140–350 clear, medium-pink (Red Purple 57D) florets, each with a 3–3.5 cm diameter with long-clawed, crinkled petals, 11–16 mm long, 7–10 mm wide, from early July to September. ‘Pecos’ is mildew-resistant, has a long flower season, with recurrent flowers on young shoots, and has dark brown exfoliating bark. This cultivar was selected in 1975.

_Lagerstroemia (indica × fauriei)_ ‘Zuni’, n.c.v., NA 54982, PI 499827 (Fig. 4), resulted from the cross of [L. indica (Dwarf Red) × L. fauriei] × L. indica ‘Low Flame’ made in 1972. The deciduous, globose, semi-dwarf, multiple-stemmed shrub has grown 2.7 m high and 2.4 m wide in 12 years. The 4-striate, glabrous, young branches are dark red-purple (Red Purple 58A) above and tinged red (Red 54C) beneath, becoming grey brown (Greyed Orange 197B), prior to light grey brown (Greyed Orange 165D to Greyed Brown 199C) exposed by exfoliating bark of older branches and trunk. The glabrous, slightly pink overcast (Greyed Red 182B) young leaves become dark green (Yellow Green 147A above and Yellow Green 147B beneath), 4.5–5.5 cm long, 2.5–3.5 cm wide, elliptic to ovate, acute to acuminate at apex, obtuse to cuneate at base and with 1–3 mm petioles, and turning bright orange red (Red 43A) to dark red (Red 46A) in autumn. The elongated panicles are 10–14 cm long, 7–18 cm wide, with 25–90 clear, medium pink (Red Purple 66C) florets, each 3–4.5 cm diane-
habit will be a low, spreading mound <2 m, but, with maturity, the height will remain <3 m, with pronounced trunk and horizontal branches. These cultivars maintain a compact growth habit, but limited annual dormant pruning readily restricts plant size.

'Acoma', 'Hopi', 'Pecos', and 'Zuni' have been uninjured at Washington, D.C. (Zone 7b) (9) and have withstood temperatures as low as -23°C when other L. indica cultivars have been severely damaged or winter-killed. 'Hopi' has been more winter hardy than the 3 other cultivars. The tops may be severely winter-injured or killed to the ground in slightly colder zones, but the roots are winter hardy and will produce abundant shoots that flower profusely.

The cultivar names 'Acoma', 'Hopi', 'Pecos', and 'Zuni' have been registered with the U.S. National Arboretum, the International Registration Authority for cultivated Lagerstroemia, in accordance with the International Code of Nomenclature for Cultivated Plants—1980 (7). Herbarium specimens and photographs are on deposit in the U.S. National Arboretum Herbarium.

Culture

These cultivars are readily cultivated under similar conditions to L. indica and are adaptable to many soils and diverse climatic conditions. However, they will grow best with sufficient moisture, in full sun, and in heavy loam to clay texture soil with a pH of 5.0-6.5. Although plants are propagated easily by hardwood or root cuttings, softwood cuttings under mist is the preferred propagation procedure. The rooted cuttings will flower frequently, but heavy flowering does not occur until the 2nd or 3rd year. The cultivars produce salable plants in 2 years in containers or as field-grown, bare-root stock or mature-balled and burlapped specimens. The best planting time, as with all crape-myrtle, is late spring or early summer when the plant is actively growing.

Outstanding characteristics and use

'Acoma', 'Hopi', 'Pecos', and 'Zuni' have reduced growth habits in scale with residential gardens and landscapes with restricted area. These mildew-resistant dwarf crape-myrtle selections tend to have small inflorescences but increased shoot growth throughout the summer that consistently initiates flower buds to maintain persistent recurrent bloom. The plants are amenable to pruning and are maintained readily as smaller plants or informal hedge by annual heavy dormant pruning. 'Acoma', 'Hopi', 'Pecos', and 'Zuni' may be used as patio container plants, foundation or specimen border plants in the residential landscape, mass planted in parks and public areas, and as hedges.

Availability

The U.S. National Arboretum releases 'Acoma', 'Hopi', 'Pecos', and 'Zuni' but does not have stock of these cultivars available for distribution. The plants increased by cooperating wholesale propagation nurseries will be the source of plants for introduction in 1986. Later, plants will be distributed to cooperating arboreta, botanic gardens, and research institutions.

Literature Cited