'Chickasaw', 'Kiowa', and 'Pocomoke' *Lagerstroemia*

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The crapemyrtle (*Lagerstroemia* L., Lythraceae Lindl.) has been cultivated in the southern United States since its introduction almost 200 years ago. The plant has remained popular because of its suitability for a variety of landscape uses as well as its year-round ornamental attributes, including glossy dark green foliage, dramatic floral display in mid- to late summer, yellow to red autumn leaf coloration, and striking exfoliating bark on smooth multistemmed trunks.

The late Dr. Donald Egolf, who directed the shrub breeding program at the U.S. National Arboretum from 1958 to 1990, was responsible for the release of 26 cultivars of crapemyrtle, including 20 hybrids of *L. indica* L. × *L. fauriei* Koehne that are extremely tolerant of powdery mildew (*Erysiphe lagerstroemiae* E. West.). These introductions have become industry standards in the United States and abroad (Byers, 1997), ranging in growth habit from semidwarf [e.g., 'Acoma', NA 48472 (Egolf, 1986)] to intermediate [e.g., 'Lipan', NA 54978 (Egolf, 1987)] to tree [e.g., 'Natchez', NA 38449 (Egolf, 1981)] forms. Here we report three additional *Lagerstroemia* cultivars developed and selected by D. Egolf and released in 1994 by G.R. Johnson ('Kiowa') and in 1997 and 1998 by M.R. Pooler ('Chickasaw' and 'Pocomoke').

Origin

'Chickasaw' and 'Pocomoke'. The pedigree of these hybrid selections is illustrated in Fig. 1. 'Pocomoke' is a selection resulting from the reciprocal cross (i.e., 8973 × 8972). Despite the complexity of the hybridization scheme, only five original plants contributed germplasm to 'Chickasaw' and 'Pocomoke'. Plant 34 (PI 237884) is a *L. fauriei* from Japan, plant 115 is a dwarf red *L. indica* from Otto Spring, Okmulgee, Okla., plant 239 is *L. indica* 'Low Flame', and plants 725 and 729 are

dwarf *L. indica* plants obtained from Sam McFadden at the Univ. of Florida at Gainesville. Crosses leading to 'Chickasaw' and 'Pocomoke' were made in 1967, 1972, 1979, 1986, and 1989. These two cultivars have been evaluated by cooperators in Alabama, Arkansas, Florida, Georgia, Kansas, Maryland, Massachusetts, Mississippi, North Carolina, Pennsylvania, Tennessee, Texas, and Virginia.

The cultivar names 'Chickasaw' and 'Pocomoke' were registered in 1997 and 1998, respectively, with the U.S. National Arboretum, the International Registration Authority for *Lagerstroemia*, in accordance with the International Code of Nomenclature for Cultivated Plants—1995 (Brickell, 1995). As with

previous *Lagerstroemia* introductions from the U.S. National Arboretum, these cultivars were named after Native American tribes.

'Kiowa'. This selection originated from a shipment of nine cuttings of unnamed *L. fauriei* received from Dr. Y. Tachibana, Botanical Garden of Osaka, City Univ., Osaka Prefecture, Japan, in 1968 (PI 326424). It was evaluated initially on the grounds of the U.S. National Arboretum in Washington, D.C. (USDA hardiness zone 7b, U.S. Dept. of Agriculture Plant Hardiness Zone Map, 1990), with further evaluation by cooperators in California, Georgia, Maryland, and Tennessee.

The cultivar name 'Kiowa' was registered in 1994 with the International Registration Authority for *Lagerstroemia*, in accordance with the International Code of Nomenclature for Cultivated Plants—1980 (Brickell, 1980).

Description

Descriptions of color for all three cultivars are based on comparisons with the Royal Horticultural Society's color chart (Royal Horticultural Society, 1982).

'Chickasaw'. This cultivar (NA 62919, PI 596408) is the first true miniature *L. indica* × *L. fauriei* hybrid, reaching a height of 0.6 m and a width of 0.7 m after 7 years in container culture in Washington, D.C. Leaves are 1.1 to 2.8 cm long and 0.6 to 1.7 cm wide. Fine-

Fig. 1. Pedigree of 'Chickasaw' and 'Pocomoke' crapemyrtle. The pedigree of 'Chickasaw' is as indicated, while 'Pocomoke' is the reciprocal cross (i.e., 8973 × 8972). Plant 34 (PI 237884) is *L. fauriei* Koehne. Plants 115, 239, 725, and 729 are *L. indica* L. (see text for details).

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Fig. 2. Exfoliating bark of mature 'Kiowa' crapemyrtle.

Fig. 3. Five-year-old cutting of 'Pocomoke' crapemyrtle.

textured dark green (green 139A) foliage turns bronze-red (greyed-red 180A) in the fall. Inflorescences are small, compact dense panicles, 2.5 to 3.0 cm long and 2.5 to 3.5 cm wide, containing 25 to 50 buds and flowers. Flowers are pink-lavender (red-purple 70B) and appear in mid- to late summer, $\approx$ 2 weeks after flowers appear on conventional hybrid tree forms of crapemyrtle, and persist until frost.

'*Kiowa*'. This cultivar (NA 63419, PI 583789) is a deciduous multistem tree that has obtained a height of 8.0 m and a spread of 7.5 m in 30 years of growth. Bark exfoliates on sinuous trunks and older branches, exposing a brilliant cinnamon brown trunk (greyed-orange 166B) (Fig. 2). Leaves are elliptical, dark green (green 137A), 7.5 to 10.5 cm long and 3.9 to 4.6 cm wide, and have yellow (yellow-orange 20A to greyed-orange 163B) autumn color. White inflorescences are large terminal panicles 9 to 13.5 cm long and 8.5 to 14 cm wide, and appear in late June or early July in Washington, D.C.

'*Pocomoke*'. The second miniature hybrid crapemyrtle released from the U.S. National Arboretum (NA 62918, PI 603813) is similar in size and habit to 'Chickasaw'. Leaves 2.1 to 3.9 cm long and 1.2 to 1.8 cm wide emerge bronze (greyed-purple 183A) before turning dark green (green 139A). Inflorescences are deep rose-pink (red-purple 64B), 2.5 to 3.5 cm long, and 2.4 to 5.1 cm wide (Fig. 3).

Culture

'Chickasaw', 'Kiowa', and 'Pocomoke' are adaptable to the same cultural conditions as other crapemyrtle cultivars and will grow and flower best in full sun and a heavy loam soil with a pH of 5.5–6.5. All three cultivars are reliably top hardy to USDA hardiness zone 7b and root hardy to USDA zone 6. Transplanting is accomplished best in the late spring or early summer when plants are growing actively, rather than when dormant. The foliage and flowers of all three cultivars are tolerant of powdery mildew and require no fungicidal spraying. 'Chickasaw' and 'Pocomoke' are especially well suited for container production because of their compact growth habit.

'Chickasaw' and 'Pocomoke' propagate readily from softwood or semi-hardwood cuttings taken before flowering. Cuttings rooted best under mist after treating the bases with a talc preparation (Hormodin 1; Merck and Co., Rahway, N.J.) or a 5-s dip in $\approx$ 1000 mg·L⁻¹ indolebutyric acid (Woods Rooting Hormone; Earth Science Products Corp., Wilsonville, Ore., 20:1 dilution with distilled water). Up to 99% of cuttings rooted in 2 to 3 weeks using these methods.

'Kiowa' can be propagated with some difficulty using softwood cuttings from juvenile plants. Rates of up to 10% were achieved when a talc-based rooting compound such as Hormo-Root "B" (Rockland Chemical Co., West Caldwell, N.J.) or Hormodin 2 (Merck and Co.) was used on juvenile tissue. Also, micropropagation is a viable alternative method for propagating 'Kiowa' (Microplant Nurseries, Gervais, Ore., personal communication).

Outstanding characteristics and uses

The unique growth habit of 'Chickasaw' and 'Pocomoke', which retain their compact mound-shaped habit without pruning, makes them well suited to diverse landscape uses. Plants may be used as small foundation or border plants, mass plantings in beds in parks and public areas, specimen plants in rock gardens or terraces, or patio container plants. Although other miniature crapemyrtles have been introduced in the trade (e.g., the Dixie cultivar group), 'Chickasaw' and 'Pocomoke' are the first interspecific hybrid miniatures, and are distinguished by their fine-textured foliage, compact branching structure, and resistance to powdery mildew.

'Kiowa' was selected for its brilliant exfoliating cinnamon-brown bark, large, white-flowered inflorescences, and overall vigor. It is suitable for use as a specimen tree, in informal landscapes, planting in wide expanses of parks, streets, or highways, or as a large container specimen for patios. 'Kiowa' has at-

tributes and landscape uses similar to other *L. fauriei* cultivars recently introduced into the trade (e.g., 'Fantasy', 'Townhouse'), but represents a different germplasm source than these cultivars, and thus broadens the genetic base of cultivated *Lagerstroemia* germplasm.

Availability

'Chickasaw', 'Kiowa', and 'Pocomoke' are not patented. Rooted cuttings of these cultivars were distributed to cooperating wholesale propagation nurseries for stock increase and introduction in 1994 ('Kiowa') and 1997 ('Chickasaw' and 'Pocomoke'). Plants of 'Kiowa' are now available in limited quantities for retail sale. Plants of 'Chickasaw' and 'Pocomoke' will be available for retail sale in the year 2000. The U.S. National Arboretum does not have stock of these plants available for general distribution, but will provide a list of wholesale nurseries offering these plants. Requests for this information should be addressed to Margaret Pooler.

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