Table 1. Flower, corm and cormel yield comparisons of ‘Florida Flame’ and 5 commercial Gladiolus cultivars grown at AREC-Bradenton (Spring 1977) on unfumigated land.

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Total spikes</th>
<th>Spike length (cm)</th>
<th>Rachis length (cm)</th>
<th>No. florets/spike</th>
<th>No. corms dug</th>
<th>Wtcorms (g)</th>
<th>Wt cormels (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida Flame</td>
<td>20.0 ab c</td>
<td>132.1 a</td>
<td>57.2 a</td>
<td>14.4 c</td>
<td>21.8 ab</td>
<td>1061 a</td>
<td>218 ab</td>
</tr>
<tr>
<td>Jessie M. Conner</td>
<td>16.0 bc</td>
<td>96.0 bc</td>
<td>45.0 c</td>
<td>17.0 b</td>
<td>16.5 c</td>
<td>752 bc</td>
<td>199 a</td>
</tr>
<tr>
<td>Friendship</td>
<td>14.5 c</td>
<td>104.4 bc</td>
<td>46.5 bc</td>
<td>15.8 bc</td>
<td>14.0 cd</td>
<td>465 bc</td>
<td>17 b</td>
</tr>
<tr>
<td>Valeria</td>
<td>8.0 d</td>
<td>85.8 d</td>
<td>30.5 d</td>
<td>10.2 d</td>
<td>9.5 d</td>
<td>244 e</td>
<td>3 b</td>
</tr>
<tr>
<td>Friendship</td>
<td>21.8 a</td>
<td>117.9 b</td>
<td>52.3 ab</td>
<td>17.6 b</td>
<td>24.5 a</td>
<td>999 ab</td>
<td>159 a</td>
</tr>
<tr>
<td>Traveler</td>
<td>17.8 abc</td>
<td>91.7 d</td>
<td>44.7 c</td>
<td>16.0 bc</td>
<td>15.0 c</td>
<td>675 cd</td>
<td>65 b</td>
</tr>
<tr>
<td>Peter Pears</td>
<td>18.2 abc</td>
<td>116.8 b</td>
<td>55.6 a</td>
<td>20.0 a</td>
<td>18.8 bc</td>
<td>522 cd</td>
<td>37 b</td>
</tr>
</tbody>
</table>

15 corms (= 3.5 cm diam) planted per plot, with each plot replicated 4 times.

20 corms (= 3.5 cm diam) planted per plot, with each plot replicated 4 times.

Mean separation within columns by Duncan’s multiple range test, 5% level.

Table 2. Flower, corm and cormel yield comparisons of ‘Florida Flame’ and 4 commercial gladiolus cultivars grown at AREC-Bradenton (Spring 1979) on unfumigated land.

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Total spikes</th>
<th>Spike length (cm)</th>
<th>Rachis length (cm)</th>
<th>No. florets/spike</th>
<th>No. corms dug</th>
<th>Wtcorms (g)</th>
<th>Wt cormels (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida Flame</td>
<td>32.0 a</td>
<td>133.0 a</td>
<td>51.8 a</td>
<td>18.8 bc</td>
<td>32.4 a</td>
<td>922 a</td>
<td>195 a</td>
</tr>
<tr>
<td>Friendship</td>
<td>20.8 b</td>
<td>107.7 b</td>
<td>46.2 b</td>
<td>14.6 b</td>
<td>19.2 b</td>
<td>528 b</td>
<td>22 b</td>
</tr>
<tr>
<td>Pink Parade</td>
<td>8.2 c</td>
<td>92.8 d</td>
<td>38.4 c</td>
<td>14.1 b</td>
<td>10.0 c</td>
<td>167 c</td>
<td>14 b</td>
</tr>
<tr>
<td>Valeria</td>
<td>5.2 c</td>
<td>95.5 c</td>
<td>36.7 c</td>
<td>12.0 c</td>
<td>6.8 c</td>
<td>167 c</td>
<td>0.1 b</td>
</tr>
<tr>
<td>Jessie M. Conner</td>
<td>27.0 a</td>
<td>103.6 b</td>
<td>45.2 b</td>
<td>16.8 a</td>
<td>21.8 ab</td>
<td>1061 a</td>
<td>218 a</td>
</tr>
</tbody>
</table>

20 corms (= 3.5 cm diam) planted per plot, with each plot replicated 4 times.

Mean separation within columns by Duncan’s multiple range test, 5% level.

‘Tuscarora’ Lagerstroemia

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Additional index words. ornamentals breeding, crapemyrtle, Erysiphe lagerstroemiae

‘Tuscarora’, with dark coral flowers (Fig. 1), is the first significant flower color break recovered among L. indica L. x L. fauriei Kochne progeny. Lagerstroemia, commonly known as crapemyrtle, for the most part has been commercially distributed only in red, pink, lavender, and white flower forms. Although The Lagerstroemia Handbook/Checklist (1) enumerates numerous cultivars, few have proved superior to unnamed color forms, or have been of commercial significance, because of mildew incited by Erysiphe lagerstroemiae E. West. From earlier hybridization at the U.S. National Arboretum, 6 mildew-resistant L. indica cultivars (‘Catawba’, ‘Cherokee’, ‘Conestoga’, ‘Potomac’, ‘Powhatan’, and ‘Seminole’) have been introduced (2, 3). More recently, the profuse flowering of L. indica was recombined with the bark coloration, mildew resistance, and growth habit characteristics of L. fauriei to produce ‘Muskogee’ and ‘Natchez’ (4). ‘Tuscarora’ is another noteworthy advance in the breeding of mildew-free Lagerstroemia cultivars.

Literature Cited


Fig. 1. ‘Tuscarora’ Lagerstroemia.
Origin

In 1967, L. (indica x fauriei) ‘Basham’s Party Pink’ was hybridized with L. indica ‘Cherokee’. ‘Basham’s Party Pink’, the first natural hybrid isolated among chance seedlings found in Texas, is a vigorous, upright, small tree. 12 m high, with pale lavender flowers, mottled tan bark, and high mildew tolerance (5). The other parent, ‘Cherokee’ (L. indica ‘Hardy Red’ and L. indica ‘Low Flame’), was introduced by the U.S. National Arboretum in 1970. This cultivar is a compact, large shrub, 4 m high, with brilliant red flowers and is mildew tolerant. In most L. indica x L. fauriei first generation seedlings, only pale lavender and white flower colors were recovered. From the ‘Basham’s Party Pink’ x ‘Cherokee’ backcross a range of white-, pink-, and lavender-flowered plants were recovered. Several seedlings produced flowers of an unusual salmon pink and were propagated for evaluation in 1971. One seedling with distinctive corollas, profusion of bloom over a long period, and high mildew tolerance proved superior and was distributed in 1978 to propagation nurseries for stock increase.

The cultivar name ‘Tuscarora’ has been registered with the U.S. National Arboretum, the national registration authority for cultivated Lagerstroemia, in accordance with the International Code of Nomenclature for Cultivated Plants — 1980 (6). Subsequently, the name has been published in The Lagerstroemia Handbook/Checklist, p. 64 (1). Herbarium specimens and photographs are on deposit in the U.S. National Arboretum Herbarium.

Description

Lagerstroemia (indica x fauriei) ‘Tuscarora’, n.c.v., NA 41787, PI 427116, is a multi-stemmed, deciduous, large shrub or small tree, 5 m high and 5 m wide after 12 years of growth. The young branches are light green, puberulent, 4-striate becoming terete, glabrous, grey-brown and after several years exfoliating to a mottled light brown (Grey Orange 165D-Grey Brown 199C) (7). The glossy, subcoriaceous leaves, 3–8 cm long and 2.5–3.5 cm wide, are elliptic, acuminate at tip, obtuse at base, and have a petiole 15–20 mm long. The red-tinged, immature leaves soon become a dark green (Yellow Green 147A above, Yellow Green 147B beneath) and turn red-orange in autumn. The flowers (Fig. 1) are dark coral pink (Red 54A), 4–5 cm diam, and with long-clawed, crinkled petals. The tapered panicles, 12–30 cm long and 10–20 cm wide, are composed of 130–350 flowers produced abundantly in early July and with recurrent bloom until late September. The dark brown, woody seed capsules persist until late winter.

Culture

‘Tuscarora’ is readily cultivated under climatic and soil conditions similar to those for L. indica. The plants are reliably hardy to Zone 7b (8) and have been uninjured at Washington, D.C., during winters when some L. indica cultivars have been slightly to severely winter-killed. In colder zones the tops may be winter-killed, but some plants may remain root-hardy and produce shoots that bloom the same season. In cooperative trial plantings, this has been the outstanding seedling selection under Texas conditions. Although the plant is adaptable to many exposures and soils, it grows best in full sun and in reasonably good soil consisting of a heavy loam to clay texture, with a pH of 5.0–6.5. Propagation is accomplished most easily by softwood cuttings, 10–20 cm long, taken from vigorous growing shoots during the summer and rooted under intermittent mist. Hardwood cuttings, 15–20 cm long, can be rooted in cold frames in late fall and early winter, or forced in a warm greenhouse under mist to produce softwood cuttings. Root cuttings handled in the usual manner will readily produce plants. Young plants grown either in containers or in nursery rows will flower sparsely the first season but will have profuse bloom by the second and third seasons. The simule, exfoliating trunk characteristics will not be significant for 3 or more years.

Outstanding characteristics and uses

‘Tuscarora’ is a cultivar that introduces a pronounced new color. The multiple-stemmed mature plant has a graceful vase shape with a broad spreading crown of red-tinted leaves in late spring; glossy, dark green leaves in summer; and orange-red autumn coloration. The most outstanding attribute is the dark coral flower color that is distinctly different from other cultivars. The early July flowering is more prolific than the recurrent bloom that is initiated on all new terminal shoots until early September. Although the mottled, light brown trunks are spectacular throughout the year, the bark coloration is most intense in mid-July when the bark is exfoliating. ‘Tuscarora’ has been mildew-free under field conditions which alleviates the necessity for mildew control sprays. The cultivar can be grown either as a single- or multiple-trunked specimen.

Availability

‘Tuscarora’ has been commercially propagated from plants previously distributed to wholesale propagation nurseries under the cooperative programs of the U.S. National Arboretum. The cultivar will be introduced in 1982. At a later date a distribution will be made to arboreta and botanic gardens. The U.S. National Arboretum does not have stock of this cultivar available for general distribution.

Literature Cited