Minnesota Commercial Flower Growers Bulletin

An Extension Publication of the University of Minnesota

Published for the Minnesota Commercial Flower Growers and the Minnesota Nursery and Landscape Association

Volume 49, Issue 2

July, 2000

MCFGA Joins With MNLA To Form A Full Service Organization

The Minnesota Commercial Flower Growers Association (MCFGA) is beginning a one year trial relationship with the Minnesota Nursery and Landscape Association (MNLA). This collaboration will mutually benefit and strengthen both organizations. Member services provided to the MCFGA members will greatly increase. The following new services will be offered to MCFGA members:

1) Participation in the MNLA Convention and Trade Show in lieu of our annual short course.
2) Expanded monthly Newsletter/Bulletin with more diverse and expanded content.
3) Access to a professional lobbyist to present the concerns and interests of the greenhouse industries at the State Legislature.
4) Access to and participation in developing of marketing materials for greenhouse/flowering crops.
5) Full time staff to facilitate member services.
6) Additional benefits such as credit card processing, gas card programs, Nextel wireless program, and inexpensive web site plans.

The culture of our Association will be intact. Our elected officers will determine meeting schedules, short course content and we have our own budget. The MCFGA financial commitment to the University of Minnesota also is intact.

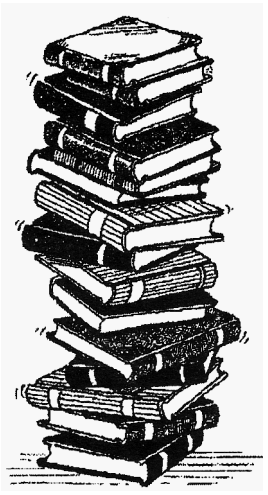
Please feel free to call with any questions: John Erwin (612-624-9703) or MNLA (651-633-4987), (toll free 888-886-MNLA)

Crape Myrtle Potted Plant Production

By Neil Anderson, Erika Berghauer, and Kari Johnson

Crape (or Crepe) myrtle, *Lagerstroemia indica*, is a member of the *Lythrum* family (Lythraceae). *Lagerstroemia* species are native to southern and eastern Asia south to Australia (Bailey, 1927; Egolf and Andrick, 1978; Turner and Wasson, 1997). The distinctive feature of crape myrtle is the crinkly margin and thin basal stalk of the flower petals. Five petals are clustered together into large panicles at the branch tips giving the overall appearance of crape paper (Turner and Wasson, 1997). Flowers are produced on the current year's growth. 'Myrtle' alludes to their close alignment with the Myrtle family (Myrtaceae). Another highly desirable feature of crape myrtle is their ability to "take the heat", being popular land-

Inside this issue:



scape trees, shrubs, and groundcovers in southern regions.

While crape myrtle (Z7-Z10) is not hardy in Minnesota the recent introduction of hardier dwarf, interspecific hybrids for the nursery industry (hardy to –15°F, Z5-Z10) warrants evaluation of these hybrids as flowering potted plants (USDA, 2000). Dwarf hybrids are the result of crossing *L. indica x L. speciosa* or *L. indica x L. fauriei* (Turner and Wasson, 1997; USDA, 2000). Such hybrids are usually sold as *L. x indica, L. x fauriei* but occasionally as *L. x hybrida.* Weeping miniature cultivars also exist (Mini Crape Myrtles, 2000). *Lagerstroemia* flowers come in a variety of pastel shades of pink, lavender, red, to white, while the foliage is typically a fine-textured glossy, dark green color. Flowering will persist until frost. Since the dwarf hybrids average 20" tall and 26" wide after several years of growth, they would be ideal for use as houseplants, hanging baskets, or container plantings and color pots for sunny locations (Bailey, 1927). When grown as a potted plant, they will grow 12-14" tall in 5-6" pots in 36-40 weeks (Ball Seed Company, 1999-2000). They will provide constant color throughout the growing season, provided they are deadheaded to promote new shoot formation. Northern gardeners can over-winter crape myrtles by storing them in a basement or cooler (45-54°F) or continue growing them as a houseplant.

When planted in the landscape, dwarf crape myrtles are spaced 18" apart. To create a fuller effect, use mass plantings of *Lagerstroemia* in border plantings with a 12" to 14" spacing. To make a full whiskey barrel or 16" container, use 3-4 plants/container. They prefer full sun but will tolerate up to 50% shade. All commercial growing mixes are acceptable for crape myrtle and they will tolerate a wide range of soil moisture levels, requiring more water when planted in dry locations or sandy soils. Propagation is from seed (12,000-15,000 seeds/oz.; germinate at 68°F) or softwood or semi-hardwood cuttings (use vegetative cuttings, dip cuttings in 1000 ppm IBA and root under mist for 2-3 weeks). From seed to flower, crop time is usually 36-40 weeks under long day photoperiods; cutting are as much as 4-5 weeks faster than seed. Common diseases and pests include powdery mildew, scale, and aphids. There are mildew resistant cultivars commercially available.

In Fall Semester 1999, potted plant production class (Hort 4051) students conducted production experiments with new and old potted crops. We experimented with production of crape myrtle to evaluate production time and the effects of pinching on plant shape.

Seeds (n=200) of 'Supersonic' (Dai-Ichii Seed Co.) were sown on July 10th, 1999, and germinated at 68°F (soil temp.) under long days. Seeds were lightly covered after sowing. Seedlings were transplanted on Sept. 10th into 4" pots with Universal Mix as the soil medium. Three treatments were applied: control (no treatment), soft pinch, and hard pinch; forty-five plants (replications) were grown in each treatment. Plants were grown to flowering in the greenhouse at 78/70°F (day/night) under a long day photoperiod (400 watt sodium vapor HID lamps, 0600-2200 HRS). The plants were fertilized with 200 ppm 20-10-20 as a constant liquid feed (CLF). Plants were pinched on Sept. 24th; the soft pinch consisted of apical (terminal) bud removal while the hard pinch removed the apical bud and main stem down to the most recently expanded leaf.

Table 1. Average plant height, width and number of lateral branches on *Lagerstroemia indica* 'Supersonic' seedlings with no (control), soft or hard pinching treatments.

TREATMENT	HEIGHT (cm)	WIDTH (cm)	LATERAL BRANCH NUMBER
Control	14.6 + 0.8	20.6 + 1.1	4.2 + 0.7
Soft Pinch	15.0 + 0.6	20.5 + 0.9	4.3 + 0.2
Hard Pinch	15.7 + 0.8	21.2 + 1.1	4.8 + 0.4

"Crape myrtle are ideal for use as houseplants, hanging baskets, or container plantings and color pots for sunny locations."

Data was collected for plant height, plant width, number of lateral branches, and dates of 50% and 100% flowering.

Germination was 75% and seedlings emerged 2-4 weeks after sowing. A low germination level would mean that plug producers would need to over-sow or double-seed their plugs to provide minimal acceptable yield potentials. Plant height, width, and number of lateral branches for the treatments are summarized in Table 1. While average values were slightly higher for all measurements with the hard pinch, pinching treatments had no significant effect on plant height (F=0.54, P=0.58), width (F=0.08, P=0.92), or the number of lateral branches (F=0.52, P=0.59). Nonetheless, strong apical dominance was evident as the hard pinch tended to encourage more lateral shoot growth and produce a fuller, more salable plant. Plant height for all treatments would not warrant the application of any PGR's to the crop in future production.

Flowering dates (100%) were affected by the hard pinch treatment. The soft pinch reached 50% flowering on Nov. 15th (18.5 wks.), while the control was four days later (Nov. 19th, 19 wks.) and the hard pinch on Nov. 22nd (19.4 wks.). The soft pinch reached 100% flowering on Nov. 24th (19.7 wks.) with the control four days later (Nov. 28th; 20 wks.). Three weeks later, on Dec. 19th (23 wks.), the hard pinch finally reached 100% flowering. From these results, soft pinching had no effect on flowering compared with the control. However, the hard pinch significantly lengthened the time to reach 100% flowering of the crop. In addition, it should be noted that flowering of the crop for all treatments occurred significantly earlier than the cropping time provided by the seed sources, e.g. 36-40 weeks. The soft pinch and control (no pinch) treatments reached 100% flowering as much as 16-20 weeks earlier. This significant decrease in the cropping time means that northern growers could produce a salable crop of crape myrtle with a higher profit margin. Future studies will focus on the response of vegetatively-propagated crape myrtle cultivars in northern growing production schedules.

We highly recommend that Minnesota growers try seed-propagated crape myrtle as a new potted crop. It would be a useful addition for Easter or Mother's Day, as well as making an interesting complement to the spring and summer bedding plant offerings. The response of vegetative cultivars in production schedules is not known at the present time. Below is a listing of possible sources of *Lagerstroemia*.

Select Sources of Dwarf and Weeping Crape Myrtle.

1. Seed

- 'Supersonic': Dai-Ichii Seed Company, 8-1 Minami-Aoyama 7-chome, Minato-Ku, Tokyo, Japan; FAX: +81-3-5467-8945
- 'Crape Myrtle Mixture' (i.e. 'Supersonic'): Ball Seed Company, 622 Town Road, W. Chicago, IL 60185; FAX 800/234-0370

1. Vegetative

- 'Dixie Series', 'Pixi Series', Weeping Varieties such as 'Cordon Bleu': Mini Crape Myrtles, P.O. Box 141627, Gainesville, FL 32614-1627; Phone: 352/485-1299; web address: http://www.lagerstroemia.com, http://www.crapemyrtles.com, http://www.crapemyrtles.net, http://www.plantpatents.net
- 'Chickasaw' (mildew resistant): U.S. National Arboretum Plant Introduction, Floral and Nursery Plants Research Unit, USDA, 3501 New York Ave., N.E., Washington, DC 20002; web address: http://www.ars-grin.gov/ars/Beltsville/na/newintro/chicksaw.html

References.

Bailey, L.H. 1927. The standard cyclopedia of horticulture. Vol. II, p.1775. MacMillan, N.Y.

Ball Seed Company. 1999-2000. Seed and plant catalog. W. Chicago, IL.

Egolf, D. and A. Andrick. 1978. The *Lagerstroemia* handbook/checklist: a guide to crape myrtle cultivars. Am. Assoc. of Bot. Gardens and Arboreta, Las Cruces, NM.

Mini Crape Myrtles. 2000. **Catalog. Gainesville, FL.**

Turner, R. and E. Wasson 1997. Botanica: The illustrated A-Z of over 10,000 garden plants and how to cultivate them. Mynah (Random House Australia), N.Y.

USDA. Floral and Nursery Plants Research Unit. 2000. ;Chickasaw' hybrid crape myrtle. http://www.ars-grin.gov/ars/Beltsville/na/newintro/chicksaw.html

"We highly recommend that Minnesota growers try seed-propagated crape myrtle as a new potted crop."