

University of Arkansas Plant Evaluation Program
1999 Plants/ 2003 Final Report

[Program information (data, reports, photographs) can be found on the internet at:
http://www.uark.edu/campus-resources/cotinus/arboretum_html/planteval.html]

December, 2003

Plants initiated in Spring 1999:

This completes the fifth year of the statewide plant evaluation program. The current team of cooperators includes Dr. Jim Robbins, Dr. Jon Lindstrom, and Manjula Carter.

The three test sites are the Hope Research Center (USDA cold hardiness zone 8, the Little Rock/Cammack property (zone 8), and the Fayetteville Horticulture Research farm (zone 7). As much as possible the three test sites were prepared in a similar manner. Full sun plants were grown in row-type beds 3' wide with a 7' grass alley. Plant groups are planted together (i.e. trees are planted together). Trees are spaced 10' apart, shrubs 6' apart, and herbaceous perennials 4' apart. For shade requiring plants, separate evaluation sites were established under natural shade at all three test sites. Little Rock site was planted on March 10, 1999; Fayetteville was planted on March 11, 1999; Hope planted on April 13, 1999. Irrigation at all three sites is by a drip system. Plants were fertilized and mulched after planting. Post-emergent herbicides were used at all three test sites. No disease or insect control has been implemented since the initial planting. Every year, the oak and *Styrax* are pruned following final growth measurements to maintain a tree-like habit. Pruning consists of removing the bottom 1/3 of limbs. **Shrubs have never been pruned.** Final growth measurements were taken at Little Rock on November 14; Fayetteville on December 4; and Hope on November 13.

Weather data at all three test sites is attached (see attached graph). I would summarize 2003

***Rhododendron Autumn Amethyst*TM**

Flowerwood Nursery donated 3-gal plants. As discussed in last year's report, the ice storm of 00/01 winter all but destroyed all three EncoreTM azaleas and the camellia at Hope.

In Little Rock flowering began at the end of March and continued for one month. This was the first of the three EncoreTM azaleas to flower in the spring. Significant re-bloom was noted in July and continued until each site had a hard freeze or later (exceptional flowering in Sept. and Oct.). At Little Rock, flowering rebounded first on Autumn Amethyst after the hard freeze. Flowering in Fayetteville began in mid-April and continued for two weeks. Re-bloom in Fayetteville began in mid September and continued for two months. This plant makes a significant, attractive addition to the fall landscape.

Based on Little Rock data, the plant appears to be slightly wider (83") than tall (53"). This is the tallest of the three EncoreTM azaleas being evaluated. Of the three EncoreTM azaleas, in Fayetteville, this cultivar has consistently outperformed the others. However, it should not be used in anticipation of spring flowers. Its greatest impact occurs during the extended fall bloom period.

***Rhododendron Autumn Coral*TM**

Flowerwood Nursery donated 3-gal plants.

Flowering notes indicate that Autumn CoralTM started flowering 2 weeks after Amethyst in the spring but flowered for a longer period of time (into early May). Flowering began in late April in

Fayetteville and continued for three weeks. Significant re-bloom was noted in early July and continued through the fall until each site had a very hard freeze. Some fall re-bloom in Fayetteville occurred in early to mid September. Plant habit is clearly wider (50") than tall (28"). Habit of Autumn Coral™ is similar to Autumn Embers™. This cultivar is less-cold hardy than Autumn Amethyst™.

Rhododendron Autumn Embers™

Flowerwood Nursery donated 3-gal plants.

Spring flowering period in Little Rock is very similar to Autumn Coral™ (April 16-May 5). Summer/fall re-bloom appears to begin a similar to Autumn Coral™. Overall shape is similar to Autumn Coral™ (55" wide x 37" tall). The single surviving Autumn Embers™ in Fayetteville consistently flowers one month later than Autumn Amethyst™ (both in the spring and the fall).

Camellia sasanqua Hot Flash™

Flowerwood Nursery donated 3-gal plants. Plants began flowering in Little Rock in late October 2003. Growth rate at Little Rock has not been that fast. Plant shape is slightly wider (45") than tall (36"). This plant is dead in Fayetteville. The plant offers a lovely, deep red, rose-type flower, however, the plant is on the small size for a typical Sasanqua. It might be a great plant for smaller landscapes.

Ilex x Little Red™

Flowerwood Nursery donated 5-gal plants. Performance was good at Little Rock and Hope. Based on results from Fayetteville (FV) we would conclude that this is the least cold hardy of the three hollies tested. Zone 7 may be approaching the northern limit for this plant. The plant is slightly taller (90") than it is wide (85"). The habit on this plant is not as well defined without pruning when compared to Oakleaf™ and Dixie Dream™. The plant habit does not fit a nice upright pyramidal nor a tight rounded plant. Fruits first developed in significant numbers on plants at Hope in 2002 and at Little Rock in 2003. Fruits are clustered tightly clustered on random branches rather than uniformly throughout the plant. Several visitors were very impressed by the fruit display. This holly has yet to fruit significantly in Fayetteville. The emerging foliage displays an attractive burgundy color.

Ilex x Oakleaf™

Flowerwood Nursery donated 5-gal plants. Performance was good at all three test sites. The plant is clearly taller (112") than it is wide (69"). A strong pyramidal shape is developing without shearing. This holly lends itself well to a narrow screen or hedge plant. Fruits have not developed on our plants although plants were in heavy flower at Hope in October. Growth in Fayetteville is very compact; it does not produce the long shoot extensions seen on plants grown farther south.

Ilex x Dixie Dream™

Flowerwood Nursery donated 7-gal plants. Performance was good at all three test sites. Plants have an upright pyramidal shape (100" tall by 68" wide) without pruning and a finer texture than what is seen on Foster's holly. This is shaping up to be a great plant for corner foundations or screening. Plants have fruited well at all three sites. The lipstick red, pea-sized fruits, are distributed evenly throughout the plant. Fruit in Fayetteville began to ripen in mid-October.

***Abelia x grandiflora Sunrise*TM**

Greenleaf Nursery donated 3-gal plants. In all locations, significant reversion from the variegated form back to a green-leaved form was noted. Performance was good at Little Rock. *Abelia* struggled at Hope. Flowering began in mid June and continued sporadically into fall. Most of the flowering was on reverted shoots. Peak flowering in Fayetteville is in early August. Here too, most flowering occurs on the numerous reversion shoots. Average plant width (60") is twice the height (36"). The tallest growth is on reverted shoots. Based on performance and reversion problems the program would not recommend this cultivar.

***Ligustrum Green Meatball*TM**

Hines Nurseries donated 5-gal plants. Performance was good at all three sites. The shape is fairly rounded (87" wide x 86" tall). This plant would not get an endorsement from our trials since we do not observe any unique qualities relative to other privets already in the marketplace. It took at least 3 years for this plant to take on a rounded shape.

Itea virginica 'Henry's Garnet'

Greenleaf Nursery donated 1-gal plants. Performance was outstanding at all three sites. Flowering generally began in early May and continued for 3 weeks. A real asset to this plant is the rich maroon fall color that is intense by Thanksgiving. Plants continue to spread quickly by rhizomes. Average plant size is 47" tall by 92" wide. This plant gets high marks statewide.

***Rhaphiolepis Bay Breeze* ®**

Hines Nurseries donated 1-gal plants. Performance was good at LR and Hope. Based on our trial, it would appear that zone 8 is the safe northern limit for this cultivar. All 4 plants died at Fayetteville.

Flowering begins in late April through early May and then again in late summer. The plant develops a very attractive, deep maroon, winter foliage color that makes a nice backdrop for the light pink flowers in early spring. Plant habit is clearly spreading (58") rather than tall (24"). Foliar leaf spot was noted on the plants. In late summer several plants at Little Rock developed a significant number of dead branches. This quickly developing problem destroyed the habit on several plants. The fungus *Pestalotia* was isolated but may not be the primary cause of the problem.

***Loropetalum Plum Delight* ®**

Hines Nurseries donated 1-gal plants. Performance has been mixed. Plants grew vigorously in Little Rock but died at Hope. We do not have a reasonable explanation why all plants died at Hope.

Flowering began in mid-March and continued through mid-May. The two surviving plants in Fayetteville do not flower reliably in spring. Although they are vigorous, late winter freezes have eliminated flowering. In 2003, during an extended, warm fall, significant bloom occurred on the Fayetteville plants. Plants tend to throw late season flowers (Sept. through November) based on temperatures and precipitation. When in flower this plant is hard to beat. Plants at Little Rock are enormous (166" wide x 126" tall) considering the age and size of the original plant.

Lagerstroemia x 'Pocomoke'

Morningside Nursery donated liners. Considering the size of the initial liners this is remarkable growth and performance for small plants planted out in field conditions. Flowers started to appear in late July (late for most crapemyrtles) but peaked toward the end of August. Plants continue to flower into September. Of the two genetic dwarfs being tested, this is clearly the best for Arkansas. Average size statewide is 49” wide by 33” tall.

***Lagerstroemia* x ‘Chickasaw’**

Morningside Nursery donated liners. Like ‘Pocomoke’, considering the size of the initial liners, it is amazing what growth and survival occurred. Three plants of this cultivar still survive in Fayetteville. This cultivar is routinely killed to the ground in Fayetteville and it is slow to re-grow the following season. Like the plants in Little Rock, the buds barely open. Flowering started in early August.

‘Chickasaw’ has beautiful, glossy, red ceramic flower buds that appear in July but were slow to open until mid August. Buds almost appeared ‘blind’ as the petals barely emerge from the calyx. The overall impact of the flower display was not as good as that seen with ‘Pocomoke’. For the first time, a reasonable number of open flowers occurred in Fayetteville. Of these two genetic dwarfs, we would not recommend this cultivar. This would be a good plant for bonsai gardeners. Several plants at Hope and Little Rock had aggressive reverted shoots. Average size statewide is 24” wide by 20” tall.

***Lagerstroemia indica* ‘Velma’s Royal Delight’**

Morningside Nursery donated liners. This crapemyrtle began flowering in mid-June and continued for months (mid-October)! Growth is correlated with location. Best growth occurred in Little Rock and least growth in Fayetteville. Despite claims to more winter hardiness, this cultivar was killed to the ground in Fayetteville in the winter of 2000-2001. Powdery mildew was noted again at the Little Rock location. This is an excellent, long flowering, mid-size crapemyrtle with an average size statewide of 71” wide by 69” tall.

Styrax japonicus

Greenleaf Nursery donated 5-gal plants. The thin, gray bark of *Styrax* is very susceptible to damage on the SW quadrant. This resulted in the death of several plants at Hope and Fayetteville. Based on our research we would strongly suggest protecting the trunk with white trunk wrap to minimize trunk sunscald in full sun situations.

Dramatic flowering is from mid-April to early May. The average plant height is 136” with a trunk diameter at 6” of 2.9”.

Oak hybrid

Pittman Nursery donated 1-gal plants. A preliminary assessment is that this plant is *Quercus* x *comptoniae*. Growth was good at all three sites. Since this plant is of seed origin, the plant habit is beginning to fall into two categories. One group is developing a nice open tree canopy, while those in the second group show a strong tendency to produce many recurving lower branches that will make this plant difficult to work with and require more initial pruning maintenance. The average plant height is 189” with a trunk diameter at 6” of 4.6”. Those trees with an open, tree canopy are worthy of additional propagation and more extensive testing.

The Ornamentals team would like to express their sincere appreciation to the cooperating nurseries (**Flowerwood Nurseries, Hines Nurseries, Greenleaf Nursery, Morningside Nursery, and Pittman Nursery**) for donating the plants for this season's trial and to the **Arkansas Green Industry Association** for financial support.