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CULTIVAR TREES FOR NORTH CENTRAL FLORIDA

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Abstract. **Only 4 tree species grown for landscape use in north central Florida are commonly available as cultivars. The remainder are predominantly grown from seed, either locally collected or from other geographic locations. The genetic variability and/or lack of regional adaptability often results in landscape trees that are not of the highest value. There is a need in our industry to select, evaluate, produce and promote tree cultivars suitable to our region. The resulting uniform trees with superior characteristics would be beneficial to growers, retailers, landscapers and consumers.**

Of approximately 35 tree species grown for landscape use in north central Florida, only 4 are commonly available as cultivars. These are *Illex opaca* Ait., *Ulmus parvifolia* Jacq., *Lagerstroemia indica* L., and the Lagerstroemia hybrids from the National Arboretum. The remainder are predominantly grown from seed, either locally collected or from other geographic locations. The genetic variability and/or lack of regional adaptability often result in landscape trees that are not of the highest value. It is my understanding that this is also true in other parts of the State. This is in contrast to other areas of the country, namely the West Coast, Mid West and Middle Atlantic States where numerous trees have been selected for superior characteristics and adaptability to those regions. This situation probably exists for a number of reasons.

1. In the past there has been little or no effort to select native trees with superior landscape characteristics.
2. With the exception of Walt Disney World, there is no organized program for landscape tree evaluation in our area.
3. Growers have likely considered many cultivars to be too difficult to produce and combined with a lack of demand, to be uneconomical.
4. Landscapers accept what is available even though the use of uniform trees with desirable characteristics would improve the quality of their work.
5. With few exceptions, little has been done to educate the public as to the advantages of using superior trees and thus increase demand.

This is a classic chicken or the egg dilemma in which all of us involved share some of the responsibility and nothing will change without a cooperative effort by all involved. The purpose of this paper is to attempt to bring attention to the situation and to stimulate interest in improving it.

The advantages of cultivars are as numerous as the superior characteristics for which the trees are selected. Tree form and size, leaf form and color, flowering and/or fruiting characteristics and resistance to adverse conditions are a few of the more common characteristics selected. Cultivars with these superior characteristics can be shared by everyone involved, from producer to consumer.

For the grower, it can mean producing a uniform crop of top quality trees, eliminating the loss of genetic culls which are inherent in many seed grown trees. To the retailer and retail customer, cultivars offer several advantages. The increase in home gardening over the past few years has led to consumers with a more sophisticated appreciation of horticulture. These people are much more likely to appreciate and pay for trees that are different from and of a higher quality than those normally found in their communities. With flowering species there is also the advantage of having trees that are in bloom rather than having to wait 5 to 10 or more years for seed grown trees to bloom and then often getting inferior flowers or in less profusion than with a good cultivar.

Variability is good for trees in natural conditions where survival is important but it is unacceptable in most landscape situations where scale and uniformity are essential. If cultivar trees were available to landscape architects, they could do a much better job of matching trees with known characteristics to the existing site and conditions.

Continual improvements in propagation techniques and equipment are making vegetative reproduction of a wider range of trees more feasible. Hopefully, this will lead to an increase in the interest of selecting and producing higher quality trees.

The following is a list of trees that I feel offer potential in north central Florida. A few of the cultivars have already proven themselves in our area while others should be evaluated on a small scale before being introduced into the trade. I have also included a few native trees for which, to my knowledge, there are no named selections but should be. More detailed descriptions may be found in several plant directories (1, 2).

Acer rubrum L. (red maple). Many cultivars exist but most if not all are selections from Tennessee or further north. Red maple is a good tree for local selection for seasonal color and/or growth habit.

Betula nigra L. (river birch). The cultivars 'Heritage' and 'Suwanee' are vigorous selections with a leaf that is larger and shinier than the species and have an attractive salmon white exfoliating bark. 'Suwanee' is performing very well in north central Florida.

Cercis canadensis L. (eastern redbud). 'Forest Pansy' is a very nice purple leaf form. 'Oklahoma' has deep purple flowers and thick waxy greenleaves. It is reportedly less susceptible to leaf rollers and more drought resistant than the species. Unfortunately, it is difficult to propagate.

Cornus florida L. (flowering dogwood). This is another tree with many named cultivars mostly from Tennessee and further north. These selections require too much chilling to perform well for us. 'Weaver' is a vigorous tree with large pure white blooms and a lower chilling requirement. 'Bay Beauty' is a double white selection from Mobile, Alabama that should be tried. 'Welch Jr. Miss' and 'Robert's Pink' are red and pink selections from southern Alabama and Louisiana, respectively, and deserve testing. This tree offers a lot of commercial potential to anyone willing to do selecting from trees at the southern edge of its natural range.

X Cupressocyparis leylandi Dallim. & A. B. Jacks. (leyland cypress). 'Naylors Blue' is a very nice pyramidal form of Leyland Cypress with moderately pendant blue-gray foliage. At least 7 other cultivars exist. They are difficult to locate but should be tested in our area.

Fraxinus pennsylvanica Marsh. (green ash). 'Marshall's Seedless' is a vigorous male form with glossy dark green foliage. It exhibits good yellow fall color and is reportedly more drought and insect resistant than the species. Other selections exist and would likely be an improvement over the seedling forms currently being grown in Florida.

Gordonia lasianthus (l.) Ellis (loblolly bay). No named cultivars of this native tree exist at present, however, selections for better form, flowering characteristics, and site adaptability are needed.

Illex cassine L. (Dahoon Holly). This is another relatively popular native tree with no named cultivars. Trees with superior form and/or fruiting characteristics are patiently waiting to be recognized.

Liquidamber styraciflua L. (American sweetgum). Several selections of this tree have been made in the Mid-West and California. The California selections 'Burgundy', 'Festival' and 'Palo-Alto' grow well in Florida but don't generally color up in the fall as well as they do on the West Coast. 'Obtusiloba' is a male selection with unusually rounded leaves. It deserves attention if only for its lack of fruit which is the sweetgum's major disadvantage. This is another native tree that warrants local selection.

Magnolia grandiflora L. (southern magnolia). There are well over 50 named cultivars of this highly variable and versatile tree. Its variability gives it a wide range of landscape uses. 'Claudia Wannamaker' is a medium broad pyramidal form with a medium texture having dark brown russeted undersides. 'Emory' is a dominant columnar tree. The parent tree measures 90 by 12 ft. 'Little Gem' is a very compact tree with small dark green russeted leaves. The parent tree measured 14 by 4 ft at 16 years of age. It has a prolonged blooming period 'Samuel Sommer'is a round headed tree with large, thick, dark green leaves. The limbs are resistant to wind damage. 'St. Mary' is an excellent compact pyramidal form with showy russeted leaves. In the past, most Magnolia cultivars have come into Florida from West Coast nurseries but southeastern sources are gradually becoming more available.

Magnolia virginiana L. (sweetbay). 'Opelousas' is a cultivar from southern Louisiana. It has leaves approximately twice as broad as normally found in the field and the flower is also larger. It grows well in north central Florida.

Michelia x foggi (savage). There are 2 named cultivars of this cross between *m. figo* (Lour.) K. Spreng. and *m. doltsopa* Buch.-Ham. ex DC. Both 'Allspice' and 'Jack Fogg' exhibit the upright tree form of *m. doltsopa* and the fragrance of *m. figo*. They develop into small upright trees with dark glossy green leaves and fragrant, white, 3-inch flowers in the spring. They have survived temperatures of –12°C (10°F) in Florida.

Platanus x acerifolia Willd. (London planetree). The cultivar 'Bloodgood' is reported to be very resistant to anthracnose which causes the early and unsightly defoliation of our native sycamore *p. occidentalis* L. It has also proven to be more tolerant of soil compaction, heat and drought.

Prunus campanulata Maxim. (Taiwan Cherry). This is an outstanding, low chilling, flowering cherry, well adapted to the lower South. There are no named cultivars, however, selecting one for ease of propagation alone would be worthwhile as it is quite difficult to root and seedlings take approximately 7 to 8 years to bloom. Another flowering cherry, *Prunus x incam 'Okame' Ingram, is a cross between p. campanulata* and *p. incisa* Thung. It is a promising flowering tree at least for north Florida and possibly further south.

Literature Cited

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THE EARLEAF ACACIA, A FAST-GROWING, BRITTLE, EXOTIC "WEED" TREE IN FLORIDA

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Abstract. **Of increasing concern in South Florida are the fast-growing, exotic trees that have reached heights unsuitable for a hurricane area and are readily broken or felled by strong winds. Prominent among them is the earleaf acacia (*Acacia auriculiformis* A. Cunn. ex Benth.) which reaches 90 ft in its homeland, northern Queensland and New Guinea. It was commonly planted as a street and landscape tree in Dade County in the 1940's and 1950's but lost popularity when it was found to produce a great deal of litter, to be highly susceptible to wind damage, and to be proliferating freely as a "weed". Nevertheless, in the past few years, the tree has been "rediscovered" by landscapers and it is being unwisely planted in numbers in new developments. Such use of this tree should be discouraged. Existing large specimens are a hazard to people and property. The wood is very desirable for handicraft.**

Florida residents have always considered a fast rate of growth most appealing in trees chosen for shade or ornamental planting. Nurseries, for economic reasons, naturally prefer to raise fast-growing trees rather than those that may be more satisfactory in the long run but slower-growing. Many a professional landscaper wants to see his design materialize "instantly" regardless of future consequences. Unfortunately, the promotion of fast-growing exotic trees has burdened South Florida with an over-population of trees that have grown too big too soon. There is increasing concern over the many trees in our communities and along our highways that have reached heights unsuitable for a hurricane area and which are readily broken or felled by strong winds. Prominent among these is the earleaf acacia (*Acacia auriculiformis* A. Cunn. ex Benth.), now placed in the Subgenus *Heterophyllum*, Section *Juliflorae*, of the family Leguminosae (12).