



New Ornamentals and Conifers for the Southeast

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Introduction

New and unique plants continue to fuel the growth of the nursery industry. There is clearly a demand for new woody and herbaceous nursery crops. Conifers are important landscape plants that have been overlooked in the Southeastern United States. Conifer evaluation projects were initiated in Tifton and Savannah in 1997 to determine which taxa were best adapted to Coastal Plain landscapes. Seed from promising selections in Tifton and other sources has been used to develop new selections for potential release.

Materials and Methods

Seed from promising conifers such as *Chamaecyparis obtusa* var. *formosana*, *Cryptomeria japonica* 'Ben Franklin', *Cupressus glabra* 'Carolina Sapphire', *Cupressus lusitanica*, *Platycladus orientalis* (Xian Shan selection) and *Thuja occidentalis* 'Holmstrup' were collected during the winter of 2002-2003, germinated, and grown in #1 containers. Seed from other selections were gathered from various sources and were grown in liners. Plants in #1 containers were shifted into #7's at the CANR on February 17, 2004, whereas liners were shifted to #3's on April 7, 2004. The substrate consisted of 6:1 pinebark and sand amended with (in lbs. per cu. yd.) dolomitic limestone (4.0), Micromax (1.5), Gypsum (1.5), Osmocote Pro 18-8-8 (14.0), and Talstar (2.0). Plants were grown under standard cultural practices and were shifted to larger containers in

2005. All plants were evaluated in November of 2005 and 2006. Numerous conifer selections were then transplanted into a field evaluation plot at the CANR.

Assorted broadleaved ornamental plants are also being evaluated at CANR.

Results and Discussion

Thirteen conifers have been selected for potential future release. Three are selections from plants growing in Tifton, while the others are all seedling selections that have been raised at CANR. Taxa under consideration include selections of *Calocedrus formosana*, *Cupressus arizonica*, *Cupressus cashmeriana*, *Cupressus lusitanica*, *Cryptomeria japonica*, *Pinus densiflora*, *Platycladus orientalis*, and *Thuja occidentalis*.

Some new ornamentals at CANR under evaluation are as follows:

Nandina domestica – seedlings from a yellow-fruited plant produce seedlings with yellow foliage. Four year old plants are beginning to fruit.

Rhaphiolepis umbellata – numerous seedlings from various parents have been evaluated. *R.* ‘Georgia Petite’ is a good landscape plant but produces poor seedlings. Seedlings from *Rhaphiolepis* selection 17-9 are dark green and show resistance to entomosporium leaf spot. Several dwarf selections are planted in the field.

Euonymus carnosus – small tree with green bark and good fall color. Several seedlings have been selected for fall color. Invasive potential needs to be evaluated as this species produces fruit and seed readily.

Viburnum sp. – 21 seedlings of ‘Mt. Airy’ were grown out in #7 containers. #17 has thick, dark green leaves whereas #3 is very compact. Seedlings of ‘Chesapeake’ appear quite variable. One seedling of *V. wrightii* (#1) is compact with dark foliage.

Acacia sp. – plants of *A. fimbriata* have been cold hardy in Tifton and Dearing but the April 9 freeze in 2007 killed all but two seedlings at the Center. These will be evaluated for further cold hardiness. *A. concurrens* and *A. calamifolia* performed well in containers during 2007. *A. concurrens* is listed as being hardy in Australia and grows up to 10 m in height with rod-shaped bright yellow flowers. *A. calamifolia* grows as a rounded shrub to 3 m and has ball-shaped yellow flowers in spring. Both species are being evaluated for cold hardiness and ornamental potential.

Sedum floriferum – attractive evergreen groundcover that looks good in #1 containers. Has not bloomed yet.

Milletia pulchra – most evergreen wisterias grow as sprawling vines, while some tropical species grow as trees in Africa. This species grows as a small shrub which dies back to the ground in the winter, reaching a height of ~ 1m by mid-summer. Three clonal selections are being evaluated. Attractive purple flowers summer thru fall.

Dichroa febrifuga – seedlings from a reported cold hardy provenance. Three seedlings have been selected for compact growth or dark foliage.

Dissotis pulchra – a *Tibouchina* relative from South Africa. Not cold hardy in zone 8. Should be ideal for the Coastal South. Bloomed in February 2007 with purple flowers, again in bloom during September and October.

Berberis sp. – seedlings of *B. xcarminea* ‘Pirate King’ and *B. edgeworthia* have not shown much potential as ornamental species for the south.

Alnus sp. – *A. firma* has the most attractive foliage and fruit of any alder I have seen. Unfortunately, both *A. firma* and *A. hirsuta* were ravaged by foliar diseases in 2007.

In summary, seedling germplasm has shown a great deal of variation. New selections will be evaluated and considered for release to the nursery industry.