**Green Industry Research Needs**
**Center for Applied Nursery Research**
**2009-10 Grant Period**

This list is to inform you of the areas of research needs and their priority as suggested by the green industry. Research needs were suggested by a panel of nursery growers and professionals, and were ranked by participants as high (*****), medium (***) and low (*).

## Plant Specific Problems

***** Sterility - making invasive plants sterile
***** Evaluation of controversial exotic species for their invasiveness and environmental impact(s)
***** Evaluation and development of invasive plant alternatives; including native plant material
***** Evaluation and development of plant material genetically tolerant of abiotic and biotic stress
**** Evaluation of ornamental deer resistant/deterrent plant materials
**** Evaluation of edible landscape plants (ex: blueberries)
** Evaluation of conifers adapted to the Southeast, including drought & shade tolerance
** Evaluation of tropicals/palms – cold hardiness in containers, over-wintering, cool climate production protocols, guidelines

## Pest Management

***** SOD/Phytophthora management – best management practices; fungicide resistance
***** Fire and Argentine ants – insecticide longevity (shipping problem - need slow release product); rate of incorporation; control in fruit bearing crops, control in propagation
***** Degree-day pest/disease schedules/models - link info to GA weather sites; pest calendars
**** Downy mildew resistance management (fungicide resistance)
**** Japanese Beetle control in production
**** Pre & Post-emergent weed control in propagation and liner production
**** Wood boring insects (Asian Ambrosia Beetle, Emerald Ash Borer, Wood Wasp, etc.) – systemic control
**** Virus control and management in production
**** Best management practices for scale and mite control
*** Snail and slug management
** Biorational/biological soil amendments (ex: Actino Iron) – effect on rooting and root disease suppression (azalea, blue pacific juniper, hydrangea)
** BMPs for pest management and/or condensed pest-specific BMPs

## Crop Production

***** New plant introductions – development of protocol for cultivar introductions to include screening for invasiveness, trial length, etc.
***** Water conservation and management in production
***** Reducing root stress - insulation, container wraps & colors, water management, pot types for survival and growth
**** Reducing nursery effluents
**** Evaluation of fiber-type pots (eco-friendly) to include cost versus longevity
**** Reducing nursery waste generation – recycling, alternative fuels, composting used potting soil and plant material
**** Weed control in beds and roadways in nursery
** Micronutrient product evaluation – heavy metals for plant growth

## Economics & Marketing

***** Reducing energy costs and investigating alternative fuels
**** Evaluation of production costs compared to sale price and crop production budgeting (keep or dump)
**** Maximizing shipping effeciency
** Economic assessment of the value of landscape plants (commercial & residential)