

# Alternatives to Invasive Plants Commonly Found in North Florida Landscapes<sup>1</sup>

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Invasive plants are non-native plants that form expanding populations in natural areas and other plant communities with which they were not previously associated (Langeland 2012). Invasive plants can cause ecological impacts, such as displacing native plants and associated wildlife or altering natural water flow and fire patterns.

Some ornamentals listed as invasive by the University of Florida IFAS Assessment of Non-Native Plants in Florida's Natural Areas or by the Florida Exotic Pest Plant Council are still in commercial production and widely found in Florida landscapes. Homeowners might replace invasive plants if non-invasive alternatives are researched, publicized and made readily available. By shifting production and use from invasive ornamentals to native or non-invasive cultivars, the nursery and landscape industry could benefit from potential revenue while fostering greater collaboration with state agencies and environmental groups.

University of Florida research and Extension efforts over the last 10 years have focused on identifying non-invasive alternatives by assessing the invasive traits of popular non-native ornamentals, related genera, and their cultivars. In more recent years, University of Florida breeding efforts have focused on producing and trialing new non-invasive cultivars. Table 1 lists native and non-invasive, non-native ornamentals as alternatives to invasive plants commonly used in Florida landscapes. Only plants considered to be generally available in the nursery trade are listed. Alternative plants are similar to respective invasive plants as much

as possible in terms of size, habit, texture, and flower color. Non-native, non-invasive plants in Table 1 were determined to be non-invasive by the IFAS Assessment of Non-Native Plants in Florida's Natural Areas (IFAS Invasive Plant Working Group 2008) or have not yet been evaluated.

## References

- Fox, A. M., D. R. Gordon, J. A. Dusky, L. Tyson, and R. K. Stocker. 2009. *IFAS Assessment of Non-Native Plants in Florida's Natural Areas: Status Assessment*. Gainesville: University of Florida Institute of Food and Agricultural Sciences. [http://plants.ifas.ufl.edu/assessment/pdfs/Final\\_PDF\\_SS-AGR-225\\_04.30.09.pdf](http://plants.ifas.ufl.edu/assessment/pdfs/Final_PDF_SS-AGR-225_04.30.09.pdf).
- Fox, A. M., D. R. Gordon, C. Gantz, G. W. Knox, and S. B. Wilson. 2007. *IFAS Assessment: Intraspecific Taxon Protocol*. Gainesville: University of Florida Institute of Food and Agricultural Sciences. [http://plants.ifas.ufl.edu/assessment/intraspecific\\_taxon\\_protocol.html](http://plants.ifas.ufl.edu/assessment/intraspecific_taxon_protocol.html).
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- Langeland, K. A. 2012. *Help Protect Florida's Natural Areas from Non-Native Invasive Plants*. Circular 1204. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://edis.ifas.ufl.edu/ag108>.

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Table 1. Invasive ornamentals commonly found in north Florida landscapes and commonly available native and non-native, non-invasive substitutes

Invasive ornamental <sup>2</sup>		Native substitute		Non-native, non-invasive substitute
Scientific name	Common name			
<i>Albizia julibrissin</i>	Mimosa	<p><i>Acacia farnesiana</i>, Sweet acacia  <i>Cercis canadensis</i>, Eastern redbud  <i>Chionanthus virginicus</i>, Fringe tree  <i>Prunus umbellata</i>, Chickasaw plum</p>		<p><i>Aloysia virgata</i>, Sweet almondshrub  <i>Callistemon citrinus</i>, Red bottlebrush  <i>Lagerstroemia</i> spp., Crapemyrtle</p>
<i>Ardisia crenata</i>	Coral ardisia	<p><i>Ilex glabra</i>, Gallberry  <i>Ilex vomitoria</i> (dwarf cultivars), Dwarf yaupon holly</p>		<p><i>Ilex cornuta</i>, Chinese holly  <i>Osmanthus heterophyllus</i>, False holly</p>
<i>Cinnamomum camphora</i>	Camphor tree	<p><i>Ilex cassine</i>, Dahoon holly  <i>Magnolia grandiflora</i>, Southern magnolia  <i>Magnolia virginiana</i>, Sweet bay  <i>Persea borbonia</i>, Red bay  <i>Quercus geminata</i>, Sand live oak  <i>Quercus virginiana</i>, Live oak  <i>Ulmus alata</i>, Winged elm</p>		<p><i>Ulmus parvifolia</i>, Lacebark elm</p>
<i>Colocasia esculenta</i>	Elephant ear	<p><i>Canna flaccida</i>, Golden canna  <i>Pontederia cordata</i>, Pickerelweed  <i>Sagittaria</i> spp. (native species), Arrowhead</p>		<p><i>Alocasia</i> spp., Elephant ear  <i>Begonia nelumbifolia</i>, Lotus-leaf begonia  <i>Caladium x hortulanum</i>, Caladium  <i>Canna</i> spp., Canna  <i>Hedychium</i> spp., Butterfly ginger  <i>Philodendron bipinnatifidum</i>, Selloum philodendron  <i>Zingiber zerumbet</i>, Pinecone ginger</p>
<i>Dioscorea bulbifera</i>	Air-potato	<p><i>Ipomoea alba</i>, Moonflower  <i>Passiflora</i> spp. (native species), Passionvine</p>		<p><i>Clytostoma callistegioides</i>, Painted trumpet vine                      (See <i>Flowering Vines for Florida</i> (<a href="http://edis.ifas.ufl.edu/mg097">http://edis.ifas.ufl.edu/mg097</a>) for additional vines)</p>
<i>Ligustrum sinense</i>	Chinese privet	<p><i>Agarista populifolia</i>, Florida leucothoe  <i>Ilex glabra</i>, Gallberry  <i>Illicium floridanum</i>, Florida anise  <i>Illicium parviflorum</i>, Star anise  <i>Itea virginica</i>, Virginia sweetspire  <i>Viburnum obovatum</i>, Walter's viburnum</p>		<p><i>Acca sellowiana</i>, Feijoa or pineapple guava  <i>Camellia</i> spp., Camellia  <i>Gardenia jasminoides</i>, Gardenia  <i>Ilex x 'Nellie R. Stevens'</i>, Nellie R. Stevens holly  <i>Ilex cornuta</i>, Chinese holly  <i>Leucophyllum frutescens</i>, Texas sage  <i>Viburnum odoratissimum</i>, Sweet viburnum  <i>Viburnum odoratissimum</i> var. <i>awabuki</i>, Awabuki viburnum  <i>Viburnum suspensum</i>, Sandankwa viburnum</p>
<i>Lonicera japonica</i>	Japanese honeysuckle	<p><i>Gelsemium sempervirens</i>, Carolina jessamine  <i>Lonicera sempervirens</i>, Coral honeysuckle</p>		<p><i>Millettia reticulata</i>, Evergreen wisteria  <i>Trachelospermum jasminoides</i>, Confederate jasmine                      (See <i>Flowering Vines for Florida</i> (<a href="http://edis.ifas.ufl.edu/mg097">http://edis.ifas.ufl.edu/mg097</a>) for additional vines)</p>
<i>Nandina domestica</i> (species type or wild type)	Nandina, Heavenly bamboo	<p><i>Agarista populifolia</i>, Florida leucothoe  <i>Itea virginica</i>, Virginia sweetspire</p>		<p><i>Mahonia bealei</i>, Leatherleaf mahonia  <i>Mahonia fortunei</i>, Fortune's mahonia  <i>Nandina domestica</i> 'Firepower', 'Firepower' nandina (non-fruitlet)  <i>Nandina domestica</i> 'Gulfstream', 'Gulfstream' nandina (non-invasive)  <i>Nandina domestica</i> Harbor Belle<sup>™</sup>, Harbor Belle nandina (non-invasive)  <i>Nandina domestica</i> 'Harbour Dwarf', 'Harbour Dwarf' nandina (non-invasive)</p>

<p><i>Ruellia simplex</i> (R. <i>brittoniana</i>)</p>	<p>Mexican petunia</p>	<p><i>Silphium asteriscus</i>, Starry rosinweed  <i>Sisyrinchium angustifolium</i>, Blue-eyed grass  <i>Stachytarpheta jamaicensis</i>, Blue porterweed  <i>Stokesia laevis</i>, Stokes' aster</p>	<p><i>Ruellia simplex</i> (formerly <i>brittoniana</i>), 'Purple Showers', 'Purple Showers'  Mexican petunia (sterile, non-invasive)  <i>Eranthemum pulchellum</i>, Blue sage  <i>Plectranthus</i> spp., Plectranthus  <i>Plumbago auriculata</i>, Plumbago  <i>Ruellia simplex</i> R10-102<sup>2</sup>, Mayan Purple Mexican petunia (sterile)  <i>Ruellia simplex</i> R10-108<sup>2</sup>, Mayan White Mexican petunia (sterile)  <i>Salvia farinacea</i>, Mealycup sage  <i>Salvia greggii</i>, Autumn sage  <i>Salvia leucantha</i>, Mexican sage</p>
<p><i>Triadica sebifera</i> (syn. <i>Sapium sebiferum</i>)</p>	<p>Chinese tallow tree,  Popcorn tree</p>	<p><i>Acer rubrum</i>, Red maple  <i>Acer saccharum</i> subsp. <i>floridanum</i>, Florida maple  <i>Betula nigra</i>, River birch  <i>Cercis canadensis</i>, Eastern redbud  <i>Cornus florida</i>, Flowering dogwood  <i>Nyssa sylvatica</i>, Blackgum or Tupelo gum</p>	<p><i>Lagerstroemia</i> spp., Crape myrtle  <i>Vitex agnus-castus</i>, Chaste-tree</p>
<p><i>Wisteria sinensis</i></p>	<p>Chinese wisteria</p>	<p><i>Wisteria frutescens</i>, American wisteria</p>	<p><i>Millettia reticulata</i>, Evergreen wisteria  (See <i>Flowering Vines for Florida</i> (<a href="http://edis.ifas.ufl.edu/mg097">http://edis.ifas.ufl.edu/mg097</a>) for additional vines)</p>

<sup>2</sup>As listed by the University of Florida/IFAS Status Assessment. The initial component of the IFAS Assessment of Non-Native Plants in Florida's Natural Areas (IFAS Invasive Plant Working Group 2008) is the Status Assessment (Fox, Gordon, Dusky, Tyson, and Stocker 2009), in which evidence is reviewed concerning ecological impacts, potential for expansion, difficulty of management, and economic value of non-native species.

<sup>3</sup>Non-invasive cultivar derived from the invasive species as determined by the University of Florida/IFAS Intraspecific Taxon Protocol (Fox, Gordon, Gantz, Knox, and Wilson 2007). The Status Assessment is generally applied at the species level. It is only applied independently to infraspecific taxa (e.g., cultivars, varieties, or subspecies) if these taxa can be clearly distinguished in the field and are not likely to revert. Other infraspecific taxa (those indicated by this footnote) may be assessed using the Intraspecific Taxon Protocol (Fox, Gordon, Gantz, Knox, and Wilson 2007).