

Alternatives to Invasive Plants Commonly Found in North Florida Landscapes¹

Gary W. Knox, Sandra B. Wilson, Zhanao Deng, and Rosanna Freyre²

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 2015). 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 20 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 ornamental plant breeding efforts have focused on producing and trialing new sterile, 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 (with assessments of “not a problem species” or “may be used with caution”) by the IFAS Assessment of Non-Native Plants in Florida's Natural Areas (<http://assessment.ifas.ufl.edu/>), or have not yet been evaluated.

References

- Enloe, S.F. and K.A. Langeland. August 2018. “Help protect Florida's natural areas from non-native invasive plants.” Circular 1204. Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. <http://edis.ifas.ufl.edu/ag108>
- Lieurance, Deah, S. Luke Flory and Doria R. Gordon. 2016. *The UF/IFAS Assessment of Nonnative Plants in Florida's Natural Areas: History, Purpose, and Use*. SS-AGR-371. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://edis.ifas.ufl.edu/ag376>

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2. Gary W. Knox, Extension specialist and professor, Environmental Horticulture Department, North Florida Research and Education Center, Quincy, FL; Sandra B. Wilson, professor, Environmental Horticulture Department, Gainesville, FL; Zhanao Deng, professor, Environmental Horticulture Department, Gulf Coast Research and Education Center, Wimauma, FL; and Rosanna Freyre, research scientist, Environmental Horticulture Department, University of Florida Institute of Food and Agricultural Sciences, Gainesville, FL, 32611.

Table 1. Invasive ornamentals commonly found in north Florida landscapes and commonly available native and non-native, non-invasive substitutes. Scientific names are those used by the UF/IFAS Assessment of Non-native Plants in Florida's Natural Areas (<http://assessment.ifas.ufl.edu/>), the U.S. National Plant Germplasm System (<https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomy/simple.aspx>), and the Atlas of Florida Plants by the Institute for Systematic Biology (<http://florida.plantatlas.usf.edu/Default.aspx>).

Invasive ornamental ¹		Native substitute	Non-native, non-invasive substitute
Scientific name	Common name		
<i>Albizia julibrissin</i>	Mimosa	<i>Cercis canadensis</i> , Eastern redbud <i>Chionanthus virginicus</i> , Fringe tree <i>Prunus umbellata</i> , Chickasaw plum <i>Vachellia farnesiana</i> , Sweet acacia	<i>Aloysia virgata</i> , Sweet almondshrub <i>Callistemon citrinus</i> , Red bottlebrush <i>Lagerstroemia</i> spp., Crapemyrtle
<i>Ardisia crenata</i>	Coral ardisia	<i>Ilex glabra</i> , Gallberry <i>Ilex vomitoria</i> (dwarf cultivars), Dwarf yaupon holly	<i>Ilex cornuta</i> , Chinese holly <i>Osmanthus heterophyllus</i> , False holly
<i>Cinnamomum camphora</i>	Camphor tree	<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	<i>Ulmus parvifolia</i> , Lacebark elm, Chinese elm
<i>Colocasia esculenta</i>	Elephant ear	<i>Canna flaccida</i> , Golden canna <i>Pontederia cordata</i> , Pickerelweed <i>Sagittaria</i> spp. (native species), Arrowhead	<i>Alocasia</i> spp., Elephant ear <i>Begonia nelumbiifolia</i> , Lotus-leaf begonia <i>Caladium xhortulanum</i> , Caladium <i>Canna x generalis</i> , Canna lily <i>Hedychium</i> spp., Butterfly ginger <i>Philodendron bipinnatifidum</i> , Selloum philodendron <i>Zingiber zerumbet</i> , Pine cone ginger, pine cone lily
<i>Dioscorea bulbifera</i>	Air-potato	<i>Ipomoea alba</i> , Moonflower <i>Passiflora</i> spp. (native species), Passionvine	<i>Bignonia callistegioides</i> , Painted trumpet vine (See <i>Flowering Vines for Florida</i> (http://edis.ifas.ufl.edu/mg097) for additional vines)
<i>Lantana camara</i>	Lantana, shrub verbena	<i>Helianthus debilis</i> , Beach sunflower <i>Salvia coccinea</i> , Tropical sage, red salvia	<i>Euryops chrysanthemoides</i> (formerly <i>Gamolepis chrysanthemoides</i>), African bush daisy, daisy bush <i>Evolvulus glomeratus</i> subsp. <i>grandiflorus</i> , Blue daze <i>Lantana camara</i> 'UF-T3' ^x , UF-T3 lantana (sterile) <i>Lantana camara</i> 'UF-T4' ^x , UF-T4 lantana (sterile) <i>Lantana camara</i> 'UF-1011-2' ^x , Bloomify™ Rose lantana (sterile) <i>Lantana camara</i> 'UF-1013A-2A' ^x , Bloomify™ Red lantana (sterile) <i>Rosa</i> spp., Rose <i>Salvia greggii</i> , Autumn sage <i>Salvia splendens</i> , Scarlet sage, scarlet salvia
<i>Ligustrum sinense</i>	Chinese privet	<i>Agarista populifolia</i> , Florida leucothoe <i>Ilex glabra</i> , Gallberry, inkberry <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	<i>Camellia japonica</i> , Japanese camellia <i>Camellia sasanqua</i> , Sasanqua camellia <i>Feijoa sellowiana</i> , Feijoa or pineapple guava <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
<i>Lonicera japonica</i>	Japanese honeysuckle	<i>Gelsemium sempervirens</i> , Carolina jessamine <i>Lonicera sempervirens</i> , Coral honeysuckle, trumpet honeysuckle	<i>Callerya reticulata</i> , Evergreen wisteria <i>Trachelospermum jasminoides</i> , Confederate jasmine (See <i>Flowering Vines for Florida</i> (http://edis.ifas.ufl.edu/mg097) for additional vines)

<i>Nandina domestica</i> (species type or wild type)	Nandina, heavenly bamboo	<i>Agarista populifolia</i> , Florida leucothoe <i>Itea virginica</i> , Virginia sweetspire	<i>Mahonia bealei</i> , Leatherleaf mahonia <i>Mahonia fortunei</i> , Fortune's mahonia <i>Nandina domestica</i> 'Firepower' ^y , 'Firepower' nandina (non-fruiting) <i>Nandina domestica</i> 'Gulfstream' ^y , 'Gulfstream' nandina (non-invasive) <i>Nandina domestica</i> 'Harbour Dwarf' ^y , 'Harbour Dwarf' nandina (non-invasive)
<i>Ruellia simplex</i> (<i>R. brittoniana</i>)	Mexican petunia	<i>Silphium asteriscus</i> , Starry rosinweed <i>Sisyrinchium angustifolium</i> , Blue-eyed grass <i>Stachytarpheta jamaicensis</i> , Blue porterweed, Jamaican snakeweed <i>Stokesia laevis</i> , Stokes' aster	<i>Eranthemum pulchellum</i> , Blue sage <i>Plectranthus</i> spp., Plectranthus <i>Plumbago auriculata</i> , Plumbago <i>Ruellia simplex</i> (formerly <i>brittoniana</i>), 'Purple Showers' ^y , 'Purple Showers' Mexican petunia (sterile, non-invasive by seed dispersal) <i>Ruellia simplex</i> R10-105-Q54 ^y , Mayan Pink Mexican petunia (sterile, non-invasive by seed dispersal) <i>Ruellia simplex</i> 'R10-102' ^y , Mayan Purple Mexican petunia (sterile, non-invasive by seed dispersal) <i>Ruellia simplex</i> 'R10-108' ^y , Mayan White Mexican petunia (sterile, non-invasive by seed dispersal) <i>Ruellia simplex</i> 'R12-2-1' ^y , Mayan Compact Purple Mexican petunia (sterile, non-invasive by seed dispersal) <i>Salvia farinacea</i> , Mealycup sage <i>Salvia greggii</i> , Autumn sage <i>Salvia leucantha</i> , Mexican sage <i>Vernonia gigantea</i> , Giant ironweed
<i>Triadica sebifera</i> (syn. <i>Sapium sebiferum</i>)	Chinese tallow tree, popcorn tree	<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> , Black-gum, tupelo gum	<i>Lagerstroemia</i> spp., Crape myrtle <i>Vitex agnus-castus</i> , Chaste-tree
<i>Wisteria sinensis</i>	Chinese wisteria	<i>Wisteria frutescens</i> , American wisteria	<i>Callerya reticulata</i> , Evergreen wisteria (See <i>Flowering Vines for Florida</i> (http://edis.ifas.ufl.edu/mg097) for additional vines)

^zAs listed by the University of Florida/IFAS Status Assessment, <http://assessment.ifas.ufl.edu/>.

^yNon-invasive cultivar derived from the invasive species as determined by the University of Florida/IFAS Intraspecific Taxon Protocol (Lieurance, Deah, S. Luke Flory and Doria R. Gordon. 2013, rev. 2016. <http://edis.ifas.ufl.edu/ag376>).