

Highly Toxic Landscape Plants of Northeast Florida

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Plants, like all living organisms, have adapted mechanisms to assist their survival. These protective mechanisms can include chemical compounds that help the plant fend off insect pests, protect against microbial infections, or create barriers between healthy and injured plant tissue. Some of these chemical compounds, while essential for the plant species, may be toxic for humans and other animals.

Northeast Florida's humid subtropical environment is lush with plant life in nature as well as our home landscapes. Spending time outdoors hiking, gardening, and exploring is beneficial to our health and wellbeing; taking time to learn about some of the most common highly toxic plants could add to the safety of your experience.



Figure 1: Angel's Trumpet

Angel's Trumpet, *Brugmansia spp.*

A large shrub with fragrant trumpet-shaped flowers, Angel's Trumpet can be found in a variety of enticing colors - white, yellow, orange, peach, or red. The flower, however, is as toxic as it is tempting to touch – merely touching the plant and rubbing your eye could potentially result in poisoning. A member of the *Brugmansia* species in the Nightshade family, Angel's Trumpets are among the most toxic of landscape plants to both people and animals. All parts of the plant contain toxins known as tropane alkaloids, including hyoscyamine, norhyoscyine and hyoscyine (scopolamine), which can be responsible for severe poisoning or even death.

Poisoning can have a serious effect on the autonomic nervous system, including the heart, digestive system, eyes, and central nervous system. Gastrointestinal issues, muscle weakness, rapid heart rate, respiratory failure, abnormal behavior, dilated pupils, blurred vision and hallucinations are poisoning symptoms. Angel's Trumpet is among the showiest of landscape plants and it is easy to co-exist with it peacefully: wear gloves and wash your hands after pruning or gardening.



Figure 2: Carolina Jessamine

Carolina Jessamine, *Gelsemium sempervirens*

This native evergreen vine is often seen sprawling through the understory of Florida's woodland edge or along the scenic roadside. Carolina Jessamine's sweetly-scented yellow flowers stand out amongst the foliage of its counterparts, making it easy to spot when hiking. Attractive and easy to grow, Carolina Jessamine is often cultivated in home landscapes as well.

All parts of Carolina Jessamine are highly poisonous, including bark, flowers, fruit, leaves, roots, sap/juice, seeds, and stems. They contain neurotoxic alkaloids related to strychnine; the indole, sempervirine, is also considered a significant toxic component. These alkaloids affect nerve endings and can cause paralysis, convulsions, muscle weakness, respiratory failure, and death. Its trumpet-shaped flowers may be mistaken for honeysuckle by the novice, hence the importance of not tasting plants if you are not 100% certain of their identity.

Despite its toxicity to vertebrates, Carolina Jessamine is an important native plant for pollinators, including butterflies and certain species of bees. The nectar however, may be toxic to honeybees if consumed in large quantities. If your landscape struggles from deer browsing, this could be a welcome addition to your garden as deer will avoid grazing on it.

Oleander, *Nerium oleander*

Oleander is perhaps one of the most infamous of poisonous plants. While it is not a Florida native, Oleander grows quite well in our zone and is planted in landscapes throughout northeast Florida. Oleanders' fragrant flowers can be found in various shades of red, pink, purple, white, or yellow. These attractive flowers, along with the rest of the plant, contain the toxic principles oleandroside and nerioside, which have both been identified as glycosides. These cardiac glycosides can lead to loss of appetite, dry mouth, labored breathing, drowsiness, gagging, vomiting, difficulty breathing, feeling intoxicated, or death in humans. Animals may experience diarrhea, abdominal pain, eye irritation, increased blood pressure, mouth sores, fainting, vomiting, loss of appetite, or death. While it is important to take precautions to avoid accidental poisoning, Oleander can be an attractive, low-maintenance addition to a landscape, albeit best planted away from the roam of pets and children.



Figure 3: Oleander

Coontie; *Zamia pumila*

Coontie is a commonly planted native cycad that thrives in our region. It's compact shape and evergreen status make it an attractive addition to our Florida landscapes; however, toxic compounds are found in all parts of the plant and are most concentrated in the seeds and raw roots. Coonties are dioecious, and while both sexes produce cones, the female plants produce showy bright red cones with seeds while the male cones produce pollen. Coonties are poisonous to humans and pets, so design considerations include planting away from the territory of small paws and little fingers.

In humans as well as cats and dogs, symptoms from poisoning can include vomiting, headache, stomach pain, dark stools, bloody diarrhea, jaundice, liver failure, or death; just one to two seeds can be fatal. Coontie poisoning can produce neurological symptoms including weakness, incoordination, and loss

of proprioception; however, these symptoms are more common when the plant has been consumed over a prolonged period of time. Toxic principles include Glycoside, Cycasin, and B-methylamino-L-alanine.



Figure 4: Coontie

Angel's Trumpet, Carolina Jessamine, Oleander, and Coontie are just a handful of the poisonous plants found in Florida. To learn more, visit the UF/IFAS Toxic Plant app at: <https://ffl.ifas.ufl.edu/toxicplants/#/tabs/plant-gallery/gallery>

References:

- <https://ffl.ifas.ufl.edu/toxicplants/#/tabs/plant-gallery/gallery>
- <https://plants.ces.ncsu.edu/plants/>
- <https://poisonousplants.cvmb.colostate.edu/Plants/>
- <https://www.asPCA.org/pet-care/animal-poison-control/toxic-and-non-toxic-plants>.
- Understanding Plant Toxicity by Marc Frank, UF/IFAS Extension Botanist: <https://conference.ifas.ufl.edu/gardener/presentations/Monday/MAGNOLIA%20A/0915%20MarcFrank.pdf>