Using the IFAS Assessment to Make Responsible Landscape Decisions

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CONTEXT

- Invasive species are a top drivers of biological decline globally.
- Locally they threaten rare, threatened, or endangered species endemic to the state.
- The ornamental plant trade, forestry, and agriculture have been the primary introduction pathway of 60%-82% of invasive plant species (Grotkopp et al. 2010; Reichard 1997).
- Not all non-native species become invasive.
- Breeding efforts can mitigate some of the reproductive traits that can make a non-native plant become invasive.

GOALS

- Examine the IFAS Assessment database to characterize the proportion of invasive vs. non-invasive horticultural options for planting.
- To raise awareness on how collaborative efforts between the horticultural industry and invasion ecology can help reduce the spread of invasive species.

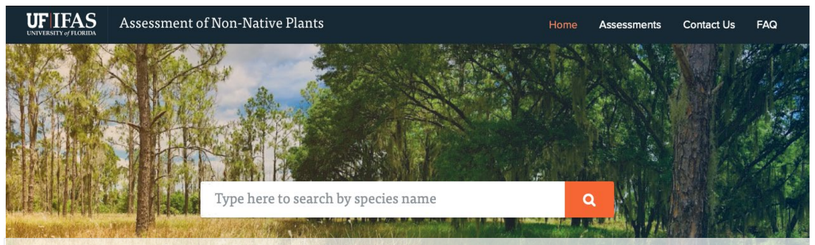

Figure 1. The IFAS Assessment was created to provide guidance on the use of non-native species in Florida and to decrease invasion by ensuring that plant species with invasive characteristics are not recommended for use by UF faculty or staff. (https://assessment.ifas.ufl.edu)

METHODS

- The Status Assessment provides a system to determine if a non-native plant is invasive in Florida (Figure 1).
- A Google search was performed for each species assessed by with the Status Assessment (n=540).
- Search words included the scientific name and common name of the species and “for sale” and "Florida".
- Percentages were calculated to illustrate the proportion of non-native plants currently assessed by IFAS and for sale to the public that are invasive, non-invasive, and caution species for each of the three zones of Florida (Figure 2 & 3).

RESULTS

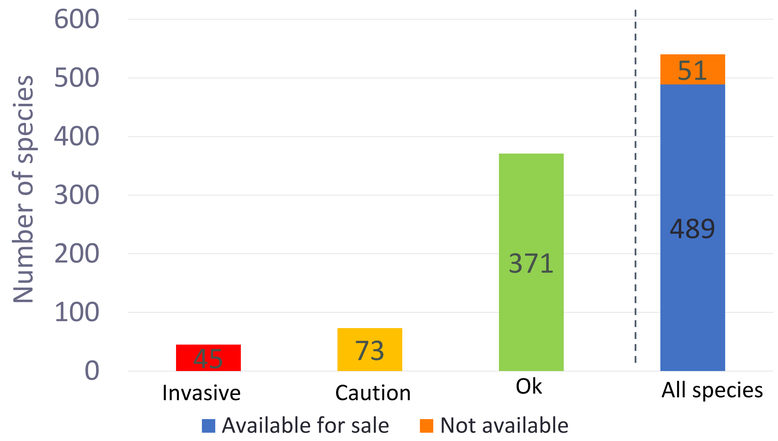

Figure 2. Out of the 540 species assessed by the Status Assessment 489 are available for sale. Out of those, 45 are invasive, 73 are caution, and 371 are not a problem.

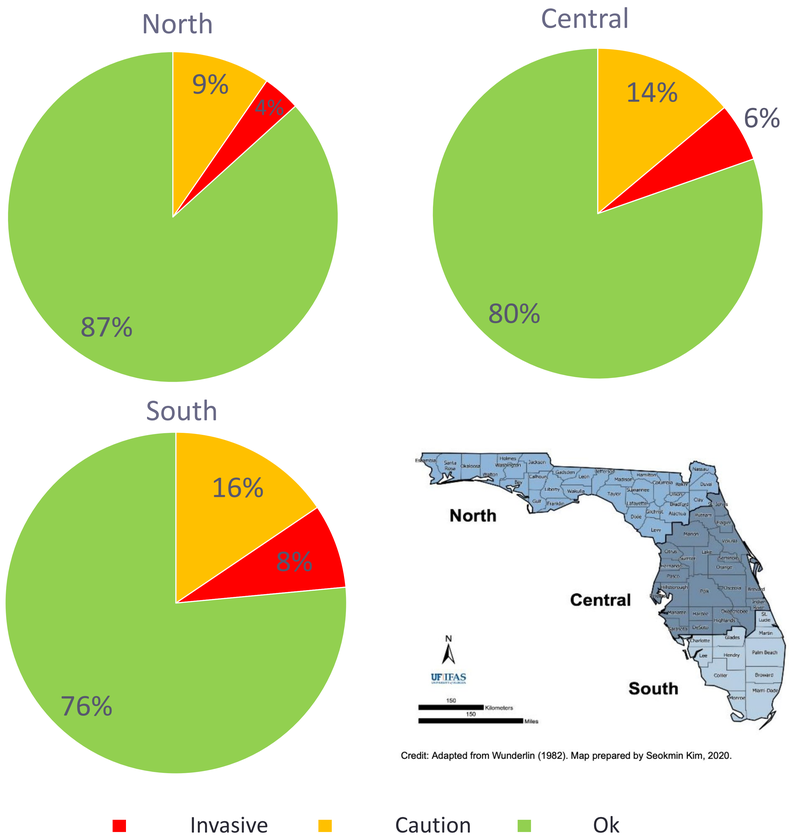

Figure 3. Percentage of invasive, non-invasive, and caution species available for sale in Florida separated by North, Central, South zones.

DISCUSSION

- 91% of all plants assessed for invasiveness are available for sale.
- Roughly 9% are invasive, 15% are caution, and 76% are not considered a problem.
- Although they represent a small percentage, invasive plants can cause an enormous amount of damage.
- There is uncertainty about the invasion status of caution species, for this reason the IFAS Assessment encourages the public to refrain from purchasing these species.

Figure 4. Invasive sp. *Wisteria floribunda* (left), caution sp. *Livistona chinensis* (middle), not a problem sp. *Bauhinia x blakeana* (right).

FUTURE EFFORTS

- Develop new, non-invasive cultivars as well as genetically altered sterile forms of prominent invasive plants.
- Promote the collaboration between the horticulture industry and invasion ecology to minimize the spread of potentially invasive plants.
- Educate the public on the dangers of invasive plant species.

Sterile *Lantana camara* 'Luscious® Royale Red Zone™'

REFERENCES

Grotkopp, E., Erskine-Ogden, J. and Rejmánek, M. (2010), Assessing potential invasiveness of woody horticultural plant species using seedling growth rate traits. Journal of Applied Ecology, 47: 1320-1328.

Reichard, S., & Hamilton, C.W. (1997). Predicting Invasions of Woody Plants Introduced into North America. *Conservation Biology, 11*, 193 - 203.