



ENVIRONMENTAL STEWARDSHIP

Putting a halt on insidious, invasive species

Land-grant university researchers and Extension experts lead the way in addressing the nation's challenges to combat invasive pests and plants, which present constant threats to native plant and animal life as well as crops, livestock and the environment.

SUCCESSFUL EXAMPLES INCLUDE:

- **Georgia** researchers are studying control options to combat a new invasive pest, the sugarcane aphid, that is dramatically impacting the sorghum crop in the South. The research aims to identify genetic lines that show promise in enhancing resistance to the pest and to develop an aphid-resistant sorghum variety. In the meantime, the team is sharing knowledge with farmers, agriculture professionals, Extension agents and students about how to control pests using existing resources.
- **Oregon** entomologists have developed an environmentally friendly, nontoxic approach to disrupting the life cycle of the invasive spotted wing drosophila, an insect that threatens the state's \$268 million berry and cherry crops. The patent-pending commercial application has resulted in an average 67% reduction in drosophila damage. That efficacy is comparable with conventional pesticides.
- Florida ranks second in the nation in the number of troublesome, non-native plants and animals that have invaded and become established in the state. **Florida** Extension organized a BioBlitz in Broward County for citizens to collect biodiversity data from area parks, which can be used to map invasive species and plan management efforts. The

public service event also included an invasive plant removal activity, resulting in the disposal of 1,700 gallons of creeping oxeye, a pretty but menacingly relentless invader.

- **Oregon** Extension is helping tribal leaders in the Confederated Tribes of Warm Springs control invasive weeds on their lands, protecting thousands of acres of valuable native rangeland. In a workshop, tribal leaders learned how to monitor for and identify invasive weeds and how to safely handle and apply pesticides.

INVASIVE PEPPERTREE MEETS MATCH IN TINY INSECT

A South American insect may prove to be the answer to an invasive plant that's plagued Florida for decades. Each year the Brazilian peppertree costs millions of dollars to control. **Florida** researchers identified the Brazilian peppertree thrips as an insect that feeds exclusively—and damagingly—on the invasive plant. After years of lab evaluation, approval was granted for the researchers to begin releasing the insect into the environment in 2019, one of Florida's first releases of a biocontrol organism. The researchers had demonstrated the likely effectiveness of the insect and the low risk posed to other plant species.

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The Land-Grant University System is a uniquely American institution, and has operated successfully for more than a century. The landgrantimpacts.org website documents and demonstrates the collective and individual impacts of the national system of joint teaching, research, and extension institutions.

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