

Biological control:

- Biological control is a safe, sustainable, and cost-effective method of pest control that uses host-specific natural enemies (usually insects and mites) to reduce the density of an invasive pest.
- One reason plants become invasive is because they are introduced into new areas without their coevolved natural enemies (herbivores and pathogens). This enemy release frees up resources for the plant to grow faster, reproduce more, and outcompete our native vegetation.
- Classical biological control is the introduction of host-specific natural enemies (usually insects and mites) from the native range of the pest organism to reestablish this natural control.
- Classical biological control of invasive weeds involves many years of research determining the safety of potential biological control agents.
- Research includes investigating host specificity, potential toxicity, potential non-target impacts, damage to the target, and any conflicts of interest.
- Scientists must demonstrate both the safety and effectiveness of a potential biological control agent following guidelines found at https://www.aphis.usda.gov/import_export/plants/manuals/domestic/downloads/tag-bcaw_manual.pdf.
- Completed research is scrutinized by a panel of scientists and government regulators (Technical Advisory Group on the Biological Control of Weeds [TAG]).
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- The steps of the review process are outlined at https://www.aphis.usda.gov/plant_health/permits/tag/downloads/flowchart.pdf.
- After approval by TAG the research is also reviewed by US Fish and Wildlife Service, Native American groups, and placed in the Federal Register for public comment.
- Two biological control species, a thrips (*Pseudophilothrips ichini*) and psyllid (*Calophya latiforceps*) have been found to be safe for release following intensive studies conducted by University of Florida/ IFAS and USDA-ARS scientists with more than 20 years' experience conducting such assessments.
- Following review of the science, the technical advisory group committee (or TAG) recommended release of both Brazilian pepper biological control agents. Both USDA/APHIS and US Fish and Wildlife endorse release of these agents.
- Following a 30 – day public comment period and review of those comments release permits for these agents were issued.
- Once released from quarantine and established, these biological control agents will be mass produced and provided to interested individuals throughout the invaded range at no cost. These populations will be self-sustaining, limited only by an abundant weed. Research indicates that both biological agents will reduce growth of plants and spread of the weed population by reducing reproduction.