



BUREAU OF ENTOMOLOGY, NEMATOLOGY AND PLANT PATHOLOGY

The Bureau of Entomology, Nematology and Plant Pathology provides plant pest and disease diagnostic services for the Division, cooperators, stakeholders and the public. Bureau personnel provide accurate identification of plant pests and diseases, enabling stakeholders to make informed decisions, protecting Florida agriculture from millions of dollars in loss due to insect pests and plant diseases.

- Entomology:** 400,000 samples processed annually
- Botany:** reference herbarium with over 16,000 plant specimens and over 1,400 different types of seeds
- Nematology:** 12,000 soil and root samples processed annually
- Plant Pathology:** 13,000+ samples processed annually; 19 new pathogens identified

Bureau personnel and resources include:

- Expert taxonomists in all major groups of arthropods, nematodes, pathogens and mollusks of regulatory concern.
- Botanists identify plants of concern or interest related to pest hosts, and provide information on native species for planting in the Florida landscape.
- Fruit fly identification lab.
- The leading molecular diagnostics laboratory in the southern US for generating “DNA barcode” data, which identifies animals, fungus, plants and bacteria.
- Honey bee diagnostics lab offering the state’s apiary industry timely and accurate diagnostic services for honey bee pests and diseases.
- Professionals that issue permits for regulated plants, arthropods, plant pests and disease that are used for educational demonstrations, research, cultivation, sale or harvest of regulated organisms.
- Annually perform Federal Pest Risk Analysis pertaining to the importation of high-risk foreign commodities and the deregulation of pests.
- Cooperative Agricultural Pest Survey (CAPS), a combined effort by federal and state agricultural organizations to conduct surveillance for the early detection of major pests and plant diseases.



DPI houses the Florida State Collection of Arthropods (FSCA), ranked in the top 5 arthropod collections in North America, with over 10 million prepared specimens and a library of over 17,000 publications

BUREAU OF METHODS DEVELOPMENT AND BIOLOGICAL CONTROL

The hunt for environmentally safe and effective ways to combat invasive pests and diseases is central to the mission of the Bureau of Methods Development and Biological Control. This bureau researches, develops and implements techniques and methods for the detection, survey, control and eradication of plant pests.

The Biological Control Section researches, mass-rears and releases insects to control a number of invasive species including air potato vine, Brazilian pepper, brown marmorated stink bug and cactus moth. Once established, biological control insects are self-replicating, self-transporting and require minimal maintenance, and help reduce dependence on herbicides and insecticides, which is beneficial for the environment.

Bureau activities include:

- Conducting pesticide trials.
- Lure and attractant testing and trap design, using 3D printers.
- Efficacy trials to support eradication and control programs statewide.
- Implementing and completing biological control activities to control pest insects and plants that negatively impact Florida’s agricultural and ornamental plant industries and natural areas.
- Performing behavioral and biological studies and molluscicide trials for invasive snails.
- Handling permitting for non-native species plantings.

**Approximately 2.5 million
biocontrol agents were
released statewide during
the 2020-21 year**



DIVISION of PLANT INDUSTRY

As a regulatory branch of the Florida Department of Agriculture and Consumer Services, the Division of Plant Industry works to detect, intercept and control plant and honey bee pests that threaten Florida’s native and commercially grown plants and agricultural resources.

FDACS.gov/PI
1-888-397-1517
PlantIndustry@FDACS.gov





BUREAU OF PLANT AND APIARY INSPECTION

Keeping invasive pests out of Florida is a full-time job. The Bureau of Plant and Apiary Inspection enforces Florida statutes and rules specific to the movement of plants, plant products and managed honey bee colonies, and conducts surveys for the early detection of plant and honey bee pests that pose a threat to Florida's agriculture industry.

The bureau is the first responder to the interception of exotic plant pests and fruit flies by conducting emergency programs that involve expanded trapping, bait treatments, regulatory actions and public outreach to prevent the establishment of pests that are major threats to Florida agriculture.

Bureau regulatory duties include:

- Annual regulatory inspections on all registered nurseries.
- Inspections of all beekeepers and managed honey bee colonies within the state to help ensure the absence of exotic pests.
- Assisting the industry in meeting destination regulatory requirements through inspections and certifications to allow the movement of Florida-produced plants, plant products and honey bee colonies to other domestic and foreign markets.
- Import inspections on all high-risk products entering the state with canine teams at parcel facilities and inspection staff at agricultural interdiction stations.



Early detection by the bureau is key, including the monitoring of fruit fly and other exotic pest traps throughout the state

BUREAU OF PEST ERADICATION AND CONTROL

The Bureau of Pest Eradication and Control assists in the detection, control and eradication of harmful pests and diseases. It also administers the Citrus Health Response Program (CHRP), a cooperative program by FDACS, the U.S. Department of Agriculture (USDA) and the citrus industry to protect Florida's citrus.

The bureau assists in the eradication of the giant African land snail and a number of fruit fly programs, including serious infestations of the Oriental and Mediterranean fruit flies.

The bureau accomplishes its mission through a comprehensive program, that includes:

- Multi-pest surveys of commercial production areas.
- Regulatory inspection and oversight with detailed data recording and mapping of all activities available to inform producers, address their concerns, increase public awareness and support the industry.
- Enforcement of decontamination and quarantine protocols outlined by compliance agreements to ensure proper regulatory procedures are followed.

Emergency Program Response: Upon the detection, identification and verification of invasive pests and diseases, the bureau will mobilize the necessary equipment, supplies and personnel for these special programs



FDACS-P-00315 Rev. 02/23



BUREAU OF CITRUS BUDWOOD REGISTRATION

It is important for the Florida citrus industry to have a reliable source of pathogen-free, high-quality budwood from true-to-type registered varieties for citrus production. The Bureau of Citrus Budwood Registration operates a mandatory program called the Citrus Germplasm Introduction Program (CGIP) to test, evaluate and remove pathogens from outstanding citrus varieties for release to the citrus industry. The bureau receives budwood from a variety of in-state, out-of-state and out-of-country sources. The entire germplasm clean up process can take 18 to 24 months to complete, with some varieties taking longer. Offices and labs in LaCrosse and Winter Haven are strategically located due to their proximity to the center of the commercial production area in the state. Citrus varieties originating in Florida are processed in Winter Haven, while varieties from out of the state or country are processed in LaCrosse.

The bureau's CGIP program prevents the spread of graft-transmissible diseases, provides new varieties to growers to help combat diseases and improve production, and ensures the highest standard of citrus for the state, to secure the health and longevity of the Florida citrus industry.

Bureau activities include:

- Scion testing of all nursery trees and seed source trees at the LaCrosse facility.
- Maintaining the Chiefland Budwood Foundation, the repository for all clean citrus stock in the state and the source for clean budwood delivered to licensed/registered citrus nurseries and academic institutions.
- Inspecting over 65 citrus nurseries, over 35 scion groves and 35 seed source locations monthly by a team of inspectors to ensure proper care and controls are in place to protect the citrus industry.



The Bureau of Citrus Budwood Registration is the only regulatory agency involved in the National Clean Plant Network