UF UNIVERSITY of FLORIDA IFAS Extension

PROHORT FACT SHEET

SOLUTIONS FOR COMMERCIAL HORTICULTURE PROFESSIONALS

provided by UF/IFAS Hillsborough County Extension

Hillsborough County Florida

Collecting Insects, Mites, Spiders, and Millipedes for Identification

Correctly identifying insects before implementing a management program is very important. In many cases control may not be necessary as most insect species are harmless and/or beneficial. When an insect pest is identified an integrated pest management approach should be utilized. Integrated pest management is the combination of appropriate pest control tactics including cultural, mechanical, biological and chemical practices into a single plan.

Sample quality greatly affects the ability to identify insects. In many cases live insects can be taken directly to your local County Extension Office for identification. It is best to call ahead to ensure that an Agent, Technician or Master Gardener will be available.

When live insects cannot be identified fairly quickly after collection or when they need to be mailed to the UF/IFAS Insect Identification Lab following these guidelines will help preserve the insects. The UF/IFAS Insect Identification Lab has a fee of $8.00 for samples mailed or referred for identification.

Adult Insects

Most adult insects can be killed by freezing or placing in a vial containing 70% alcohol (ordinary rubbing alcohol). Although freezing will preserve the insects for identification, the alcohol method is used for mailing most specimens.

Soft Bodied Insects

Most soft bodied insects can be placed directly in alcohol, however caterpillars may turn black when placed in alcohol.

Larvae/Caterpillars of Moths, Butterflies, Beetles and Flies

Larvae and caterpillars preserve better when placed in hot water first. Drop the live insects into very hot water that has just been boiled (do not drop into boiling water). After several minutes transfer the insects into alcohol.

Dry Insects

Dry insects are brittle and tend to break apart easily. Carefully transport, store and pack them in a container with soft tissue.

Mites, Ants and Small Insects

Mites, ants and small insects can be collected using a Q-tip or small paint brush. Dip the Q-tip or brush in the alcohol to release the insects into the solution.

Plant feeding mites and small insects

In addition to preserving the insects in alcohol it is helpful to provide a sample of the host plant. Collect a sample of the host plant to provide feeding material and include some host plant with damage. Wrap in a dry paper towel and place in a zip lock bag.

Sample Submission Forms

Filling out the submission form completely is very important for insect identification and recommendation of management plans. Obtaining a good history of the problem or damage from your client will expedite the process. Information about the site, host and type, length and extent of damage is extremely helpful. These forms are available at your local County Extension Office or on-line at http://edis.ifas.ufl.edu/pdffiles/SR/SR2200.pdf.

Transporting, Packing and Mailing Your Sample

Tightly close any vials containing alcohol to prevent leaking. Place collection vials, bags or boxes in a crush resistant container for transporting and mailing. When mailing use packing material such as styrofoam peanuts, bubble wrap or newspaper to pad the collection container.

Do not use padded envelopes unless the insects are in a crush resistant container. Do not store, transport or mail dry specimens in a flat envelope or bag. Do not store live or unpreserved samples in a hot vehicle.

Suspected live invasive or exotic species should be double bagged to prevent escape. Contact your County Extension Office or Lab in advance of bringing in or mailing these specimens.

Place sample submission forms in a separate zip lock bag inside the mailing container. For samples mailed to the UF/IFAS Insect Identification Lab enclose a check for $8.00 payable to the University of Florida.

Samples should be mailed early in the week to prevent specimens from being stored over weekends or holidays in excessively hot or cold environments.

For additional information contact:
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