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## Long Island Entomology Program

**Program Leader:** Daniel Gilrein, Extension Entomologist  
Cornell Cooperative Extension of Suffolk County  
Long Island Horticultural Research & Extension Center  
3059 Sound Avenue  
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### **Project Objectives:**

The Entomology Program supports economic and environmental health of Long Island's agriculture and ornamental horticulture industries through applied research, information, advice, diagnostic services and educational programs concerning insect and mite pest management in agricultural production and landscape maintenance situations.



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### **Project Summary:**

The Entomology Program includes three main focus areas:

*Applied research* to address questions and problems concerning insect and mite control on ornamental plants, vegetables and winegrapes and to evaluate pest control options that are effective and of lower toxicity and environmental impact.

*Diagnostic services* to the horticultural industries, to identify agents causing injury or infestation and to suggest appropriate control options. Samples are submitted to the Diagnostic Laboratory and field visits are made as appropriate.

*Educational programs* disseminate useful information on new products and new strategies. Programs include illustrated lectures, articles in trade magazines and newsletters and informal discussions. Frequent telephone consultations are also made to expediently respond to inquiries on acute or chronic pest control problems, phytotoxicity, state registrations, etc.

The Extension Entomologist also works closely with grower and landscape maintenance organizations and other trade groups, university staff, government officials and civic groups to address issues such as invasive species (such as Asian longhorned beetle), non-target or environmental effects of pest management activities and other insect and pesticide matters of industry and public concern.



Testing an organic treatment for sweet corn pests

### **Project Justification:**

Long Island's agricultural and ornamental horticulture industries are valued at over \$250M. While groundwater and other concerns regarding pesticide use are important issues in the region, aesthetic standards are high with low tolerance for insect injury or infestation. Growers depend on the program as a source of information and research to make critical decisions concerning insect and mite management while minimizing environmental impacts. As many older products have been lost and new control options have become available, the Entomology Program helps growers adapt to changes in pest management tools and strategies and find solutions to pest problems in diverse production situations.

### **Impact to Industry:**

The Program has evaluated many new options for managing pests in Long Island agricultural production and landscapes, including biological, reduced-risk and minimum-risk products, as alternatives to older chemistries, for organic growers or where notification-exempt materials are desired for professional landscape maintenance. Studies also focus on difficult pest problems of special interest to Long Island such as control of white grubs in container-grown plants, chlorpyrifos replacements for cabbage root maggot, organic options for vegetable pests, effective miticides for broad and cyclamen mites, late-season management of whiteflies in poinsettia crops and pest-resistant birches for Long Island landscapes.

Recent work with local vineyards identified a need for effective, non-restricted-use controls for European red mite, a potentially serious pest in the region. Studies at LIHREC followed by cooperative work with local vineyards has enabled a rapid introduction of a new, reduced-risk alternative.

For commercial audiences, the Program has responsibility for updating statewide Pest Management Guidelines for woody ornamental plants and contributes to updating guidelines for vegetables and greenhouse crops, of major importance to Long Island. The Program also provides support to the Home Horticulture Diagnostic Labs to help homeowners obtain the best possible information on insects and mites and to government agencies concerning invasive pest species such as Asian longhorned beetle.

### **Project Team Members:**

Daniel Gilrein, Extension Entomologist, Program Leader

Lucille Siracusano, Program Assistant

#### **Collaborators:**

Dr. John Sanderson, Associate Professor, Floriculture  
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