



CORNELL

## Vegetable/Potato Research and Extension Program

**Program Leader:** Dale D. Moyer, Agriculture Program Director and Vegetable/Potato Specialist  
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### Project Objectives:

The vegetable/potato program provides educational programs and conducts applied research and commercial on-farm demonstrations to assist growers and industry personnel. These projects include integrated pest management (IPM), environmental stewardship, cultural practices, variety selection, and marketing.



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### Project Summary:

- **Pest Management:** Development and implementation of IPM elements such as biological control, rotation, sanitation, action thresholds, and the use of reduced-risk pesticide materials, including the development of organic pest management practices.
- **Vegetable Variety and Cultural Practice Trials:** Experiments addressing the productivity and quality of commonly grown vegetables are conducted to provide growers with up-to-date information. Studies determine the adaptability of new varieties, experimental lines, and "niche" crops. The development of practices to increase yields and/or quality under Long Island conditions are critical functions that impact the long-term viability of vegetable operations.
- **Agricultural Stewardship:** Establishing a Long Island agricultural stewardship program to promote the use of agricultural inputs in a responsible and environmentally sound manner. The increasing complexity of environmental issues requires continued research to create a balance between industry needs and the environment. The concerns about groundwater and surface water contamination from agricultural practices and pesticide labeling restrictions on Long Island necessitate the development of new best management practices that address these issues.
- **Educational/Extension programs:** The extension of applied research is a key component of this program. Information is disseminated through grower meetings, conferences, on-farm demonstrations, on-farm consultations, newsletters, Cornell University guidelines and bulletins.



Marc Cusomano weighing lettuce for a weed management trial conducted at Schmitt Farms

### Importance of the LI Vegetable/Potato Industry:

- When measured by the value of vegetables/potatoes sold and acreage in production, Suffolk County ranks 3<sup>rd</sup> and 5<sup>th</sup> in New York, respectively, based on the most recent Census of Agriculture.
- Approximately 7,000 acres of fresh market vegetables and another 4,000 acres of potatoes are grown on Long Island. Although many acres of potatoes have been converted to other agricultural uses, Suffolk County still ranks 1<sup>st</sup> in acreage and value statewide.
- These industries generate at least 40 million dollars.
- The vegetable and potato industries, coupled with acreage in rotational field crops, comprise almost half of the 30,000 acres of cropland in Suffolk County.
- The 150 farm markets in Suffolk County, the agri-entertainment business, and the open space provided by farmland are key ingredients to the 1.3 billion dollar tourism industry.

### Impact to Industry:

- **Pest Management:** The development of IPM programs including thresholds for European corn borer in potatoes and monitoring systems in sweet corn, tomatoes and peppers. The evaluation of insecticides to economically control the Colorado potato beetle including Spinosad, a reduced risk/organically approved material.
- **Vegetable Variety and Cultural Practices:** Variety evaluations at commercial farms and the LIHREC are published in the Long Island Potato and Vegetable Variety Cultural Practices Results. The Golden Nematode quarantine necessitates evaluation of new resistant varieties. Growers have adopted new cultural practices such as the short stake and weave system for tomatoes after evaluation by the program.
- **The Organic Research Block at the LIHREC:** A two-acre block was established to address the production concerns of an increasing number of organic growers. Planned research includes the development and assessment of organic cultural and pest management practices.
- **Educational/Extension programs:** Conferences and meetings including the Long Island Agricultural Forum, winter vegetable meetings, and summer twilight meetings have extended research results to growers. The weekly newsletter, “Fruit and Vegetable Update”, provides growers with recent research results, pest development and management guidelines.

### Project Team Members:

Dale Moyer, Vegetable/Potato Specialist  
 Kate Hair, Program Assistant  
 Mark Cusomano, Program Assistant  
 Rachel Pearson, Program Assistant  
 James Creighton, Program Assistant



Dale Moyer discusses pests in cabbage with Bob Nolan of Deer Run Farms.



Joe Sieczka, Kevin Sanwald, and Kate Hair rate potato varieties at Foster Farms.

### Key Collaborators:

Dr. Robin Bellinder, CU  
 Dr. Anu Rangarajan  
 Joseph Sieczka, CU  
 Dr. Andrew Senesac, CCE/LIHREC  
 Dr. Margaret T. McGrath, CU/LIHREC