## Assisting farmers manage late blight and Phytophthora blight Mollie Cohen and Margaret T. McGrath

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The purpose of this research is to improve detection and management of late blight in Eastern Long Island. In an effort to improve detection, weekly excursions are done to three local organic farms where the tomato and potato fields are thoroughly scouted for late blight. Other diseases observed are noted as well. In addition to visual examination in the field, tissue samples are collected and brought to the lab for further microscopic and diagnostic examination. Digital photographs and notes are taken for detailed record keeping. Once late blight is detected assistance will be provided to the responsible farmer. At the Long Island Horticulture and Research Extension Center (LIHREC), research is being done to evaluate management practices that could be used by both organic and conventional farmers. This includes evaluating resistant tomato varieties and the computer-based Decision Support System (DDS) for timing applications of copper fungicide to organic tomatoes. Research is also being done at LIHREC to evaluate management practices for another important disease, Phytophthora blight, in pepper and cucurbits. Biofumigation with mustard cover crop and biocompatible fungicides are being evaluated. Information gathered from these experiments in addition to scouting will aid in success of managing these important oomycete diseases.

