randomly assigned to treatments and WFT per plant were counted prior to the first application. Sprays were applied to wet (1 liter / treatment) using a CO2-powered backpack sprayer fitted with a TJ60 4003EVS nozzle operating at 30psi. to eight single-plant replicates. Plants were arranged in a completely randomized design on a greenhouse bench after application. GF-2860, A20520A, SP3009, Hachi-Hachi, and Overture were applied (HOW MANY TIMES?) on a 2-week interval and four applications of Venerate were made weekly. Were control plants sprayed with water???

Treatments were evaluated by tallying the number of live adult and immature WFT on May 21, 29, June 12, 19, and 26. All plants were rated for thrips damage on 1 - 100 scale (percent foliage surface damaged or necrotic). ANOVA and multiple comparisons among treatments were performed on raw or transformed data using Tukeys’ HSD (JMP Pro 9.0, SAS Institute). WFT populations on plants were similar among treatments at the start of the trial. Overture, GF-2860, and Hachi-Hachi provided significant control of both immature and adult thrips over the period of the trial. Both rates of A20520A and SP3009 treatments reduced WFT numbers significantly but activity appears to last for about one week. Venerate was not effective on any date and WFT numbers were not significantly different from those on control plants. No injury or phytotoxicity was associated with any treatment on plants. Compared with other treatments, overall plant quality was significantly lower on control plants and those sprayed with Venerate due to high levels of thrips damage on foliage.

Turf

Evaluation of Pylex for Control of Crabgrass in Cool-Season Turf
Investigators: Andrew Senesac, Irene Tsontakis-Bradley and Andrew Hoil
Location: Long Island Horticultural Research and Extension Center

A field study was established at the LIHREC in an area with established low maintenance turf (mostly PRG) and untilled bareground areas with an abundance of crabgrass (Digitaria ischémum & D. sanguinalis). Other incidental weeds were present, including a heavy infestation of Oxalis stricta. O. stricta became evident mostly in treated areas where crabgrass had been controlled. As a result, there was little if any in the untreated control plots.

The area was treated on June 11, 2014 when crabgrass was in the early 1-2 tiller stage. A second application was made three weeks later on July 2. The treatments consisted of Pylex (topramezone) at 1.0 and 1.5 fl oz prod./A. Drive XLR8 (quinclorac) was applied alone at 64 oz prod./A. The combination of Pylex and Drive XLR8 was applied with both at reduced rates, 0.75 oz/A and 32 oz/A respectively. All Pylex treatments were applied with 0.5% MSO surfactant.

The plots were visually rated for percent control and percent ground cover of the target weed species. The results indicate that although there was a certain level of crabgrass suppression with the lower Pylex rate, the higher rate was necessary to attain commercially acceptable control. Drive applied alone provided very good crabgrass control. The combination of Pylex and Drive at reduced rates resulted in the best control which lasted more than 54 days after the initial treatment. Oxalis stricta was excellently controlled by all rates of Pylex and not at all by
Drive XLR8. Even the lowest Pylex rate was preventing Oxalis establishment for the length of the study.

**Postemergence Control of Wild Garlic**
**Investigators:** Andrew Senesac, Irene Tsontakis-Bradley and Andrew Hoil  
**Location:** Long Island Horticultural Research and Extension Center

A field trial was conducted in early spring 2014 to evaluate several postemergence herbicides for efficacy on wild garlic (*Allium vineale*) in turf and simulated landscape situations. The trial area was established in a minimally maintained turf area and wild garlic bulbs were planted in 6-inch troughs several years prior to treatment. The treatments were applied on April 3, 2014 when the garlic scapes were 3 to 5 inches tall. The treatments consisted of standard rates (label use rates) of Ferric HEDTA (Fiesta), Metsulfuron (Manor), Glyphosate (Roundup Powermax), Flumioxazin (Chateau), Carfentrazone/2,4-D/MCPP/Dicamba (Speedzone) and Triclopyr+2,4-D (Turflon II). The plots were evaluated visually for percent control and scape numbers were counted.

The results indicate that the best treatment in terms of both high level of control and reduction in scape number was metsulfuron at 41 days after treatments. Glyphosate appeared to cause significant injury to the plants, but the scapes were not actually reduced in number. The other treatments were either ineffective or only partially effective. The plots will be reevaluated in the spring of 2015 to determine if any of these treatments had long lasting effects.

**Postemergence Control of Mouse-ear Chickweed**
**Investigators:** Andrew Senesac, Irene Tsontakis-Bradley and Andrew Hoil  
**Location:** Long Island Horticultural Research and Extension Center

A field trial was conducted in early spring 2014 to evaluate several postemergence herbicides for efficacy on Mouse-ear Chickweed (*Cerastium fontanum*) in turf and simulated landscape situations. The trial area was established in a minimally maintained turf area the natural vegetation was allowed to grow, which included a heavy chickweed infestation. The treatments were applied on April 3, 2014 when the chickweed was actively growing. The treatments consisted of standard rates (label use rates) of Ferric HEDTA (Fiesta), Metsulfuron (Manor), Glyphosate (Roundup Powermax), Flumioxazin (Chateau), Carfentrazone/2,4-D/MCPP/Dicamba (Speedzone) and Triclopyr+2,4-D (Turflon II). The plots were evaluated visually for percent control.

The results indicate that the best control was attained from the metsulfuron, glyphosate and flumioxazin treatments at 41 days after treatment. Speedzone was partially effective but did not provide acceptable control of this weed. The ferric HEDTA was not effective on this weed. Glyphosate appeared to cause significant injury to the plants, but the scapes were not actually reduced in number. The other treatments were either ineffective or only partially effective. The plots will be reevaluated in the spring of 2015 to determine if any of these treatments had long lasting effects.
**Postemergence Control of Lesser Celandine**  
**Investigators:** Andrew Senesac, Irene Tsontakis-Bradley and Andrew Hoil  
**Location:** Long Island Horticultural Research and Extension Center

A field trial was conducted in early spring 2014 to evaluate several postemergence herbicides for efficacy on lesser celandine (*Ficaria verna*) in turf and simulated landscape situations. The trial area was established in a minimally maintained turf area where the natural vegetation was allowed to grow, where celandine corms had previously been planted. The treatments were applied on April 3, 2014 when the celandine had emerged and was beginning to flower. The treatments consisted of standard rates (label use rates) of Ferric HEDTA (Fiesta), Metsulfuron (Manor), Glyphosate (Roundup Powermax), Flumioxazin (Chateau), Carfentrazone/2,4-D/MCPP/Dicamba (Speedzone) and Triclopyr+2,4-D (Turflon II). The plots were evaluated visually for percent control.

The results indicate that the best control was attained from the metsulfuron, glyphosate, and flumioxazin at 41 days after treatments. Speedzone was partially effective but did not provide acceptable control of this weed. The ferric HEDTA was not effective on this weed.

---

**Vegetables**

**Asparagus variety trials**  
**Investigators:** Mark Bridgen  
**Location:** Long Island Horticultural Research and Extension Center

The asparagus plant (*Asparagus officinalis altilis* L.) is a valuable, winter-hardy vegetable that provides Long Island and New York growers with an early-season fresh product. New cultivars and varieties of this plant are available from Walker Brothers in New Jersey. These varieties have not been trialed on Long Island. The objective of this project is to compare new varieties of asparagus plants to some of the “tried-and-true” varieties that our vegetable growers have grown for several years. This is a 5-year study to evaluate their spear production as well as their resistance to common asparagus diseases and root rots.

On Long Island, stem rots and crown rots of asparagus can be caused by *Fusarium moniliforme* and *F. oxysporum asparagi*. Rust caused by *Puccinia asparagi* and Purple Spot can also be problems. With new cultivars of asparagus available, it would be valuable to determine the degree of disease resistance of these plants on Long Island.

During the summer of 2014, the crowns of several varieties of asparagus were planted at the LIHREC in Riverhead, NY. These cultivars were ‘Grande F1’, ‘Jersey Knight’, ‘Purple Passion’, ‘WB-210’, ‘Apollo F1’, ‘Jersey Supreme’, ‘Jersey Giant’, ‘Atlas F1’, and ‘UC157 F1’. There are 4 blocks each with 3 plants of each cultivar planted in a randomized complete block design for statistical analysis of the results. The plants were irrigated and fertilized as necessary to grow quality plants.

---