Great Lakes Vegetable Working Group
2008 Tomato IPM Project – Ohio Report

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Regular scouting observations of six different high tunnel tomato producers in the Highland, Adams and Pike counties of Ohio were made on a weekly to bi-weekly basis from April through July 2008. These growers only produce tunnel tomatoes for the early market harvest then shut down the tunnels as the field harvest begins the end of July, therefore no scouting was done after the tunnel harvest season was complete. None of the growers planted a fall tunnel tomato crop this season.

The only insect problems observed in the tunnels were Green Peach Aphids, Tarnished Plant Bug, Tomato Horn Worm and a few two spotted spider mites, none of which caused any real economic losses to the growers. Parasitic wasps were observed in outside field tomatoes, but none were observed in the tunnel plantings. Insect levels never reached economic threshold levels before the end of the harvest season that growers had to deal with them. thus requiring no implementation of a beneficial insect release program.

There were more serious problems observed that were more nutritional and physiological in nature than due to insects. These included ethylene injury and flower abortion from poorly functioning heaters, fertilizer burn and injury due to poorly calibrated injectors, or not regular fertilizer injections being made to the crop. Weeds, and in particular nutsedge, in one growers' tunnel where no fabric or plastic mulch was used was a never-ending battle for them. Poor pollination was also observed on one growers tomato crops due to a lack of supplemental pollination from vibration or movement of the blossoms on a regular basis.

In terms of disease issues, *Sclerotinia sclerotinium* or White Mold or Timber Rot disease was observed which required plant rouging and crop rotation. Cladosporium Leaf Mold was observed which required additional air movement in the tunnels from horizontal air flow fans as well as ventilation from peak vents and side curtains.

This on-farm Integrated Pest Management high tunnel tomato trial in partnership with Cornell University and Michigan State University was welcomed by all participating growers as well as the growers in the surrounding communities. With the great interest and growth in high tunnel tomato production, additional research in this area will be required for grower success. We look forward to participating in similar programs in the future. A big thanks to the Great Lakes Vegetable Working Group for funding this research project.