

**1999 Progress Report**  
**New York State Integrated Pest Management Program**

**Title:** Assessing and Augmenting Biological Control of Tarnished Plant Bug in New York Strawberries

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**Special Note**

Though further funding will not be requested for this project this year, we will submit a final report in 2000, which will provide a more comprehensive view of the data gathered over the last few years. Much of this data represents dissertation research for Kelley Tilmon; as such, a more complete report will become available as she prepares her thesis.

**Abstract**

The general objective of this project is to investigate biological control of the tarnished plant bug in New York strawberries by the introduced parasitoid wasp *Peristenus digoneutis*. The first project goal for 1999 was to evaluate the impact of companion plantings of alfalfa on parasitism rates in nearby strawberries. Samples have been collected from this experiment, but they have not been analyzed yet, and no results are available. The second project goal was to evaluate *P. digoneutis* activity in New York strawberries (and other plant habitats) near the edge of the known *P. digoneutis* range and beyond. Many samples from this study remain to be analyzed. However, so far we have found parasitism rates in strawberry as high as 67% (Washington County). We have also found *P. digoneutis* parasitizing tarnished plant bugs in strawberries as far west as Cattaraugus (50%) and Wyoming (1%) Counties. These represent new county records, and are far beyond the expected border of *P. digoneutis* range (around Tioga County). Other interesting results are the high parasitism rates in chickweed (up to 58%) and rye/vetch mixture (up to 79%). The latter is particularly intriguing because rye/vetch is often used as a cover crop, especially by organic farmers. Future research on the use of rye/vetch to augment parasitism of tarnished plant bug could prove useful.

For a printed copy of the entire report, please contact the NYS IPM office at:

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