

# Project #8924

## Initiation of an IPM Program

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**Duration of Project:** June 1, 2006 – December 1, 2007



## I. Brief Project Description

The project includes three projects:

1. Variegated cutworm on tomatoes;
2. Tarnished plant bug on leafy vegetables
3. European corn borer on sweet corn

The overall goal of this project is to initiate preliminary research on IPM of economically important insect pest associated with fresh vegetable crops in Ontario.

*Three projects are included in one application to maximize lab resource time, personnel efficiency and overhead expenses.*

## II. Project Objectives

1. To acquire much needed information about the biology of the variegated cutworm (*Peridroma saucia* Hubner) on tomatoes in southern Ontario
2. To determine whether the variegated cutworm is resistant/tolerant to presently registered and novel control products.
3. To identify effectiveness of control products (currently registered and novel) on different larval instars of the variegated cutworm and test their efficacy in small plot field trials.
4. To acquire much needed information about the biology of the tarnished plant bug (*Lygus lineolaris*(Palisot de Beauvois)) on leafy vegetable crops in southern Ontario.
5. To conduct lab and small plot field screening for efficacy of currently registered and novel control products for tarnished plant bug control on a representative leafy vegetable crop..
6. To gain a better understanding of the actual impact of temperature and application timing on the efficacy of currently registered pyrethroids and other novel control products on the corn borer (*Ostrinia nubilalis* Hubner) and honey bees that forage on fresh market sweet corn. Assessing non-target impact of the sweet corn agro-ecosystem on beneficial insects such as honey bees is extremely important.