



Reduce Risk Strategies for Cabbage Maggot Control

LEAD RESEARCHER

Renee Priya Prasad

Associate professor and department head for agriculture at the University of the Fraser Valley

Crucifers (crops in the cabbage family) provide a wealth of opportunities for Canadian vegetable growers, but they are under threat from cabbage root maggots. The cabbage root maggot is an insect pest that attacks all crucifer plants. The plant family includes cabbage, kale, broccoli, Brussels sprouts, cabbage, cauliflower, radishes, rutabagas and turnips. Cabbage root maggots feed on the roots of crucifer plants, potentially killing young plants or causing enough damage to root crops that they cannot be harvested.

This research activity, which is a continuation of previous research, will find new management tools, mainly insecticides, and strategies for how to use those insecticides with non-insecticide tools, so that growers will see decreased crop losses from cabbage root maggot. The plan is to get products registered for control of cabbage root maggots, giving growers more tools in their toolboxes to fight back against this pest.

Crucifers can become a major part of the Canadian vegetable industry moving forward if there are more ways to control cabbage root maggots. By growing crucifers, vegetable growers get a rotational crop option to accompany other vegetable crops such as potatoes. Crops in this plant family provide significant cash flow. In most areas of Canada, crucifers have been the first crops to start bringing in cash flow on a farm. The crucifer family has a lot of diversity in crops, allowing for numerous crop options to meet market demands and respond quickly to unpredictable growing seasons.

KEY TAKEAWAYS:

- Through this research activity there will be registrations of products (mainly insecticides) that will protect crucifers against cabbage root maggot.
- This research activity will give growers more options for rotational crops they can grow from within the cabbage family.
- Strong financial returns on crucifers for vegetable growers will be provided through this research activity.
- Field trials in the 2023 growing season showed promising results for transplant applications of up to four weeks post-treatment with the insecticides Cimegra and Verimark.
- Trials during the 2023 growing season showed there are multiple variables to be considered in future trial work. These include direct seed germination uniformity, transplant application methods and transplant tray dimensions.

