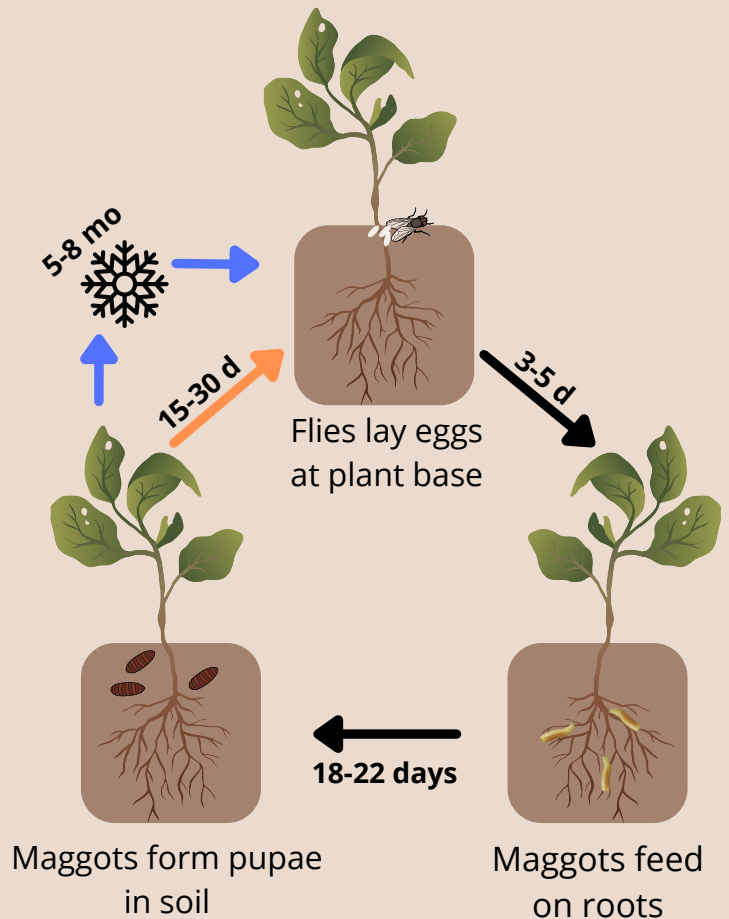


Controlling cabbage maggot in turnips with the Lorsban ban

by B. Werling and Z. Szendrei

Maggots in a minute

Cabbage maggot flies look like tiny houseflies. In spring, flies emerge from overwintering pupae and lay eggs on plants in the brassica family, including turnips. Eggs hatch into maggots in 3-5 days. This first batch-or generation-of maggots feeds on roots for 18-22 days. They then form a pupa-the fly version of a cocoon. After 15-30 days, "1st-generation" flies emerge from these pupae to kickstart the cycle again: they lay eggs, maggots develop, and pupate into the "2nd generation" of flies. The maggoty offspring of 2nd-generation flies pupate in the fall, entering the fly version of hibernation for 5-8 months. In spring, flies emerge from these overwintering pupae, searching for a new field.

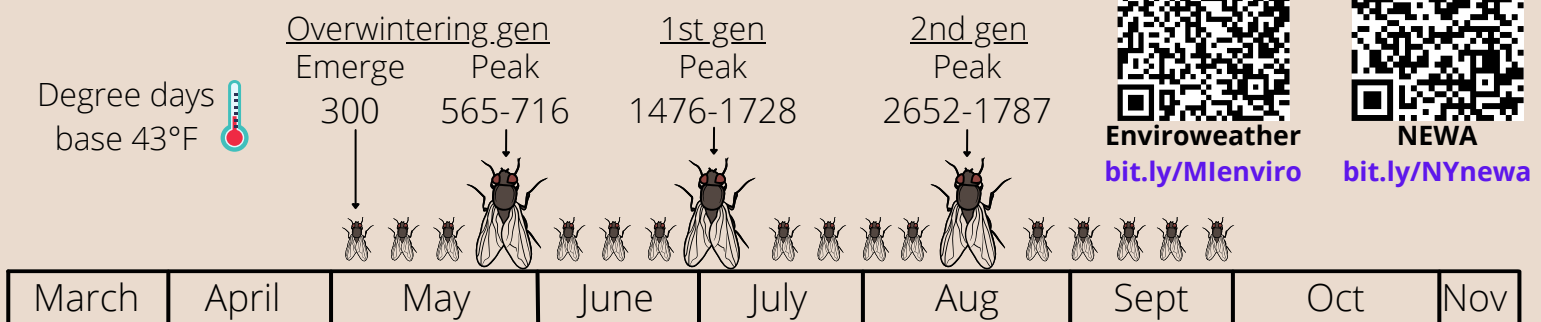


Maggots tunnel in turnips Early tunnels heal and scar, later tunnels stay open

Photo credit: Pavel Krok, CC BY-SA 3.0 <<https://creativecommons.org/licenses/by-sa/3.0/>>, via Wikimedia Commons

Use degree-days to time your sprays

Degree day models can be used to predict when flies emerge from overwintering pupae in spring, and peak activity of this overwintered, first and second generation. The graphic shows average predictions for a Hudsonville, MI weather station. Regional weather networks like EnviroWeather and NEWA include this model, and can be used to aid timing of post-plant sprays.

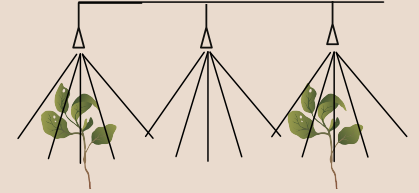


What kills cabbage maggot?

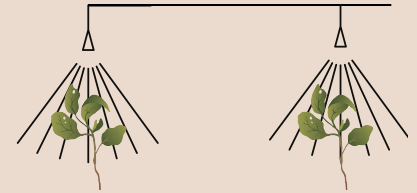
Trials have identified four main active ingredients that can suppress or control cabbage maggot

Tradename	a.i.	timing
Verimark	cyantraniliprole	in-furrow
Mustang Maxx	zeta-cypermethrin	post-plant broadcast
Exirel	cyantraniliprole	post-plant drench
Radiant	spinetoram	post-plant drench
Entrust SC	spinosad	post-plant drench

Weekly broadcast apps of Mustang Maxx reduce damage

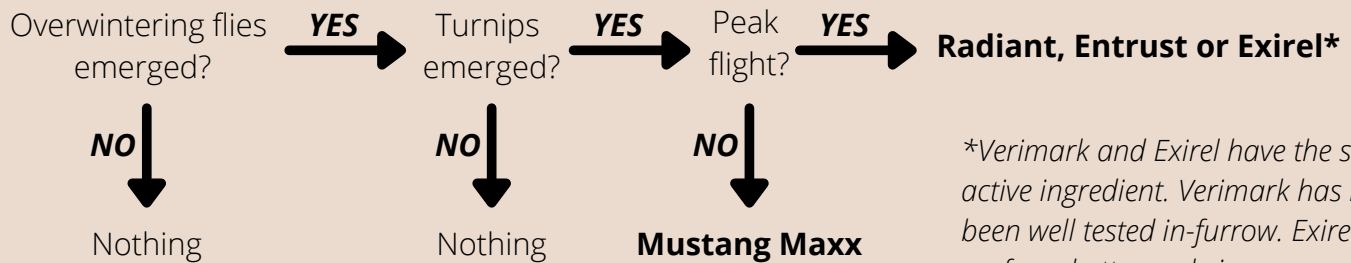


High-volume banded drenches-targeting peaks-concentrate other products when and where needed



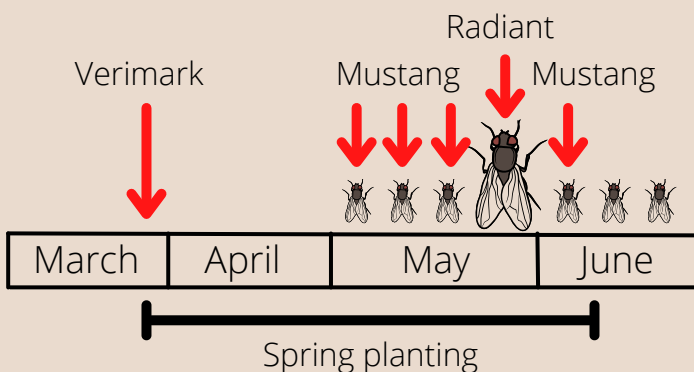
What to put in the tank each week?

Consider applying Verimark* in-furrow at planting time. Then make weekly decisions about post-plant applications based on fly activity. Below is a decision tree you could use each week.



**Verimark and Exirel have the same active ingredient. Verimark has not been well tested in-furrow. Exirel may perform better early in a program.*

An example spray program for spring turnips



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