

**The Press Democrat**  
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**ADVICE TO GROW BY » SONOMA COUNTY MASTER GARDENERS**  
**Banishing a butterfly you don't want in your garden**  
**May in the Garden**



**Signs of a white cabbage butterfly larvae invasion on a brassica leaf.**  
MG Bruce Robinson

**Question:** I see white butterflies landing on my kale, then later green caterpillars decimate the leaves. What do I need to do to stop this from happening, since I love kale?

**Answer:** The arrival of what's known as the white cabbage butterfly (*Pieris rapae*) can strike fear in the hearts of even experienced gardeners. When you eventually discover the damage their larvae can do to your cole crops (vegetables from the brassica family, including cabbage, mustard, cauliflower and broccoli), you might be tempted to give up gardening altogether.

However, there are several options to control and manage the caterpillars — aka the imported cabbageworm — that are eating your kale.

The adult female butterfly is white and has one to four black spots on each forewing. They lay small, elongated eggs — whitish or yellowish in color — under the leaves of brassicas. The eggs eventually hatch and become the green caterpillars you're finding on your kale.

Many new or inexperienced gardeners race to their smartphones to try to find solutions to what's happening. While the internet may help you correctly identify the white butterfly and the cabbageworm, many of the suggested solutions for dealing with this pest unfortunately aren't based on scientific research.

Research-backed options recommended by the University of California Integrated Pest Management are handpicking, floating row covers and creating hoop houses and insecticidal control using *Bacillus thuringiensis* (Bt).

Floating row covers are effective to prevent egg laying for large-scale operations, but this solution can be expensive and cumbersome for home gardeners growing on a small scale and who may have children and pets.

Handpicking the worms is very effective and recommended by the UC. While there might be a major “eww” or “ick” factor for some home gardeners, it does work. Go out each morning or at night with a flashlight, pick those worms from the underside of your kale and dispatch them into a bucket of soapy water (dishwashing soap is OK).

It's too hard to pick off the eggs, and attempting to rub them out can damage the leaves. It might be difficult to recognize the cabbageworm on the leaves of your kale because they blend in so well with the dark-green color. You won't be able to catch every worm, but if you check daily, you'll see much less damage to your kale.

It's always best to refrain from using chemical sprays or insecticides because they can be harmful to honeybees and other pollinators. However, one option suggested by the UC is the organically acceptable microbial pesticide Bt.

Bt is effective against the imported cabbageworm and has a low toxicity level for honeybees and other beneficial insects. However, it still might be somewhat tricky for the home gardener to use. Try not to apply Bt when your kale is in full sun. The underside of the leaves must be well-covered because the pesticide must be ingested by the caterpillars, particularly the smaller ones, which are the most susceptible.

Repeated applications are needed because Bt breaks down quickly. Finally, it's mostly sold as a concentrated liquid and can be somewhat expensive.

Insecticidal soap can be effective against the cabbageworm when applied weekly to cabbage plants. However, Bt has been found to be far superior and consistently effective. Insecticidal soap may damage your plants, particularly cabbage, when used as frequently as needed to control the worm.

The ultimate goal for dealing with all pests is biological control by attracting beneficial insects to your garden. We should strive to work toward creating a garden that's in harmony with nature. As noted by Eric Grissell in his book “Insects and Gardens: In Pursuit of a Garden Ecology,” “The goal is to build layer upon layer of simple plant diversity until the insect-plant and insect-insect interactions become so complex that they take care of themselves.”

University of California Integrated Pest Management recommends attracting parasites such as tachinid flies and various species of parasitic wasps that will deal with the

imported cabbageworm. Because tachinid flies and parasitic wasps are small, the plants' flowers need to be small or readily accessible for their pollen and nectar. Just a few of the plants that support both insects include yarrow, sweet alyssum, eriogonum (wild buckwheat) and cosmos.

Several books about attracting beneficial insects, or “good bugs,” to your garden include “Good Bugs for Your Garden” by Allison Mia Starcher and “Attracting Beneficial Bugs to Your Garden” by Jessica Walliser. Both books suggest plants that will bring tachinid flies and parasitic wasps to your garden.

It'll take time and planning to create a garden in harmony with nature that will do the work for you so you can grow beautiful, pest-free brassica crops. In the meantime, you still can have great-looking kale to harvest by regularly handpicking the caterpillars and using Bt, if you choose to do so.

Additional resources:

- How to manage pests, pesticide information on Bt: <https://bit.ly/42048U7>
- Imported cabbageworm: <https://bit.ly/3n0JOmU> and <https://bit.ly/3AyeY87>
- Insectary plants: <https://bit.ly/3n2i6WR>
- Recommended plants for Sonoma County for beneficial insects: <https://bit.ly/3n9uZyd>



**The white cabbage butterfly produces larvae that will decimate brassicas like kale, broccoli and cauliflower.** PETR DAVID JOSEK / ASSOCIATED PRESS

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## May in the garden

Ready? Set? Plant! It's time to plant all summer veggies — beans, cucumbers, eggplant, kale, lettuce, melons, peppers, squash and tomatoes.

Always plan to grow veggies your family likes to eat and share any excess with friends and neighbors.

Add edible flowers to your garden for a pop of color and also to attract beneficial insects that pollinate the garden and provide an ecological balance. Common edible flowers include carnations, violas, lilacs, roses, lavender, marigolds and nasturtiums. You also can enjoy the flowers of herbs such as rosemary, basil, thyme and sage.

It's not too late to plant summer-blooming bulbs like dahlias, crocosmia, gladiolas and summer annual flowers like begonias, marigolds, Gerbera daisies and sunflowers.

Deadhead and prune azaleas, rhododendrons and camellias after they have finished blooming. To remove the spent flowers of the rhododendrons, use clippers or two fingers to nip just above the two new leaflets. During the spring and summer, feed these shrubs monthly with a balanced organic fertilizer formulated for acid-loving plants.

Prune all spring-flowering trees and shrubs when bloom is past.

*Contributors to this week's column were Bruce Robinson, Diane Judd, Joy Lanzendorfer and Debbie Westrick. Send your gardening questions to [scmgpd@gmail.com](mailto:scmgpd@gmail.com). You can contact the Information Desk directly at [707565-2608](tel:7075652608) or [mgsonoma@ucanr.edu](mailto:mgsonoma@ucanr.edu).*