



## Try These Sustainable Ways to Control Garden Pests

By Kaelin Smith, UConn Home & Garden Education Center

Pests are an inevitable part of having a garden. Pesticides may seem like a quick fix to garden pests, but in the long-term they can actually be more detrimental than helpful. Synthetic chemicals present in pesticides may remain in the environment for a prolonged amount of time and may be harmful to beneficial insects that naturally keep unwanted pests at manageable levels. Rather than applying a pesticide, consider organic methods of pest management. Organic pest control methods are a more sustainable approach to managing pests without the use of synthetic chemicals and can leave your garden ecosystem healthier and more resilient.

A great place to start is to make sure you keep your plants healthy and well cared for, since weak or unhealthy plants are more attractive to pests. Proper watering cycles and regular fertilizer applications build your plant's defense system and practices like simple garden sanitation will minimize insect and pathogen damage tremendously. Regular removal of leaves and debris reduces the number of hiding places for pests.

Attracting beneficial insects to your garden is another helpful tactic to reduce pest populations. Beneficial insects include ladybugs, parasitic wasps, and hoverflies. For example, Braconid wasps parasitize Tomato Hornworms. These wasps lay their eggs under the caterpillar's skin and their larvae consume the caterpillar for food, thereby keeping your tomatoes safe! To attract these helpful bugs, eliminate the use of synthetic chemicals in your garden and diversify nearby plants by adding native species. Many of the same synthetic pesticides that kill beneficial predators are also especially harmful to bees, which we rely on to pollinate our crops.



Tomato hornworm with parasitoid wasp pupae. Photo by Kaelin Smith, UConn

Preventative measures are key to protecting your garden from pests. Lightweight, polyester row covers can be used to shelter plants from insects that attack from above, such as chewing beetles or caterpillars. Row covers can be placed over metal hoops or directly laid over plants.

If insect pests are already a problem in your garden, sticky traps may be viable to scale down their presence. Sticky traps are colored cards covered in an adhesive that is meant to trap insects. Whiteflies, fruit flies, leafhoppers, thrips, psyllids, and winged aphids are attracted to yellow traps, while cucumber beetles, plant bugs, and flea beetles are drawn to white colored traps. Pheromone traps are useful for attracting Japanese beetles. Be sure to place them at a distance from the plants you are trying to protect.



Japanese beetle feeding on plant leaf. Photo by Kaelin Smith, UConn

To target mite, aphid, or whitefly infestations in your garden, insecticidal soap may be the best option. Not only is it highly effective, but it is also inexpensive and has no negative effects on the environment. Insecticidal soap is applied to plant foliage and dissolves insect cuticles that it comes into contact with. This control must remain in liquid form in order for the substance to be absorbed by the insect; once dried on the plant, it is no longer effective. Some plants may be more sensitive to insecticidal soaps than others, so testing it on one leaf prior to large-scale application is recommended to avoid burning.

Insects are not the only threat to vegetable gardens. Fungi are another nuisance that can cause plant decline. Proper plant spacing in your garden can help to avoid conditions favorable for fungi growth. After watering or rain, leaves may remain wet if there is not proper aeration. Fungal pathogens thrive in moist conditions, therefore planting your veggies adequately spaced can help cut down on fungal infections. Also, select plant varieties that are resistant to common diseases found in this area.

Organic pest control is not only better for your health, but it is also the best option for the environment. With a little extra planning, your garden this year can be sustainable *and* pest-free.

For more information on controlling pests using least toxic options or for other gardening questions, feel free to contact us, toll-free, at the UConn Home & Garden Education Center at (877) 486-6271, visit our website at [www.ladybug.uconn.edu](http://www.ladybug.uconn.edu) or contact your local Cooperative Extension center.