

Ways to Control Squash Bug Damage on Zucchini Plants.



A vegetable garden is not complete without zucchini or other summer squash. And with the nutritional benefits, it is no wonder that summer squash is one of the most planted vegetables in a home garden.¹ According to the Phelps County MU-Extension Nutrition specialist, Bethany Schindler, *“All varieties of squash and zucchini are good sources of vitamin C which is an antioxidant that may help reduce the risk of heart disease and certain cancers. Vitamin C also plays a critical role in protecting our skin from bruising, helps heal cuts and helps our body absorb iron.”*

But, as Ozark vegetable gardeners know, successfully growing squash can be difficult at times due to the ever common insect pest, *Anasa tristis*, commonly known as the squash bug.

Since this is the time of year when squash bug adults emerge from overwintering in nearby plant debris and soil, now is a prime time to start considering control methods to protect your summer squash plants from infestations of this destructive insect. Implementing a few preventative steps to limit squash bug populations will assist you in successfully growing cucurbit crops in your home garden.

¹National Gardening Association <http://www.gardenresearch.com/files/2009-Impact-of-Gardening-in-America-White-Paper.pdf>

This “bug” feeds on plants in the Cucurbit family including pumpkins and summer and winter squash. Adults and immature nymph squash bugs feed on every above ground part of the plant, and can be a persistent insect pest year after year in a home garden. Squash bugs use their piercing mouthparts to rob the plant of nutrients and water, often causing damage to the xylem vessels of the plant (used for water uptake), causing wilt and death of the leaf or vine above the wound.

“Controlling Squash Bug Populations”

You will hear this term a lot from me and other horticulturalists, but when managing insect or pathogen pests, it is important to have a good **Integrated Pest Management** plan in place, that is one that includes combination of control methods, including preventative steps to limit infestations during the summer growing season.

Although there are some insecticides which can be effective in controlling immature squash bugs, the adults are somewhat resistant, or at least they scatter quickly to avoid being sprayed by the insecticide. Therefore, it is important to use other methods of control along with chemicals to successfully battle their population numbers. But if chemical insecticides, such as permethrin² are used, it is recommended that they be applied to the underside of leaves as well as to the soil area a foot or two around the base of the plants.

Since adult squash bugs overwinter in plant debris and in the soil, a second preventative pest management step is to remove all plant debris from the garden or till the debris into the soil after the season is over in the fall. To prevent soil erosion a cover crop such as crimson clover could be planted.

Crop rotation is an important step in the integrated pest management plan; the more seasons between planting the same plant family crops in the same plot the better. Although this will not eliminate the pest as they can travel from other sites, it may limit the severity of the infestation. We recommend separating the new planting site as far away from where the cucurbits were planted last season as possible.

When planting on a new site where squash was not present the previous year, individual plants or rows can be protected by using row covers. These row covers must be securely fastened and sealed to prevent the insects from crawling under the fabric. For proper pollination, row covers must be removed briefly when the plants are flowering.

Keeping plants healthy with proper fertilizer application and water is also an important part of pest management; stressed plants are susceptible plants.³ This supports one of the Phelps County Master Gardeners, Linda Taylor’s observation that, using drip irrigation systems has seemed to help limit squash bug damage at her garden.

² James Quinn, MU-Extension Horticulture Specialist, Cole County.

³ <http://extension.usu.edu/files/publications/factsheet/ENT-120-08.pdf>

With all the nutritional benefits of home grown zucchini and squash, it is important to keep control of squash bug populations so that you as a home gardener can harvest a bountiful crop throughout the season.⁴⁵⁶

⁴ <http://www.ext.colostate.edu/pubs/insect/05609.html>

⁵ <http://www.extension.org/pages/63329/managing-squash-bugs-in-organic-farming-systems>

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<http://www.michiganorganic.msu.edu/uploads/files/31/Squash%20bug%20and%20Squash%20Vine%20Borer%20Control.pdf>