

## ASK THE MASTER GARDENER BATTLING FLEA BEETLES

Let's decide to declare a small war on a couple of mean and ornery critters and their kin. First of all the tiny garden terror that attacks some of our favorite veggies, the FLEA BEETLE. This enemy of potatoes, tomatoes, and lots of other delicious delights is a tiny, shiny, black beetle about the size of a head of a pin (a small pin)! Some types have white or yellow markings on them. They got their name flea beetle because when disturbed, they jump like fleas and are about as welcome. These nasty little insects chew tiny holes in the foliage of many, many plants and they transmit both bacterial and viral diseases including early blight in potatoes and bacterial wilt in corn. The larvae feed on the roots of plants and the adult feeds on the foliage. Together they can destroy the entire plant and many more because there are lots and lots of flea beetles out there. Lots of tiny holes in the leaves is a sure sign you have uninvited guests in the garden. Their favorite crops are snap beans, broccoli, beets, Brussel sprouts, cabbage, cauliflower, Swiss chard, Chinese cabbage, collards, corn, eggplant, kohlrabi, peppers, potatoes, radishes, rutabagas, spinach, tomatoes and turnips.

White sticky traps can provide an early warning of how fast they are multiplying. Also they can help catch some of the little varmints. Change the traps when needed, but remember the white sticky traps also get the good guys. You can also give them a shower of either garlic or hot pepper spray. For garlic spray, chop garlic, onions or chives up into fine pieces then mix with water (preferable hot water). Strain the mixture and then spray, trying to hit as many as you can. Do the same with the hot peppers (be sure to wear rubber gloves to protect yourself). Strain and spray on the tops and undersides of the leaves. Re-spray after rains.

The adults over-winter in the soil and in garden debris, on trees, or in nearby brush. Those nasty little guys are or can be just about everywhere, so the best you can do as far as fall cleanup, is get rid of weeds that are related to the crops they like.

Diatomaceous earth dusted around the base of the plants or even around the whole plant will create a barrier against the flea beetle. Or try used coffee grounds spread in circles around each plant. Put on row covers as soon as your seedlings are planted. Flea beetles dislike shade, so the netting cools the plant from some of the hot summer sun and makes an unpleasant environment for the enemy.

The next vile criminal on the most wanted dead list is that tiny menace, the scourge of all greenhouses everywhere, the nasty whitefly. One of the best descriptions of them is flying dandruff and they are as annoying. They also are the size of the head of a small pin. The nymphs are yellowish, oval, flat and legless. The eggs are yellow and cone shaped and are laid on the undersides of the leaves. Both the nymphs and the adult whitefly suck the juices from the leaves, buds and stems of plants. This weakens the plant and causes the leaves to turn yellow and die. The second thing they do is cover the fruit and leaves with their shiny, sticky, honeydew. This in turn encourages the growth of an ugly black fungus. Yech!

Most fruits and vegetables are prime targets for these pesky vermin, but there is hope. Use a yellow sticky trap above your plants and gently shake the plants, so the flying dandruff gets caught in the trap. Also use insecticidal soap. Spray early and often if there

are any noticeable signs of these unwanted guests. Be sure to spray well under the leaves of all the plants.

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This column is written by Washington State University/Skagit County certified Master Gardeners. Questions may be submitted to WSU/Skagit County Cooperative Extension, 306 S. First, Mount Vernon, WA 98273-3805.