

ABOUT FLEA BEETLES



FLEA BEETLES are tiny dark brown or black beetles, 2-3mm (about 1/10") long. They can be seen on leaves if you approach quietly. When disturbed, flea beetles jump away with the help of their powerful rear legs.

DAMAGE Flea beetles chew multiple, tiny round "shot" holes in the top sides of leaves, with damage to leafy greens most severe in spring. New leaves are usually damaged first, giving them a lacy appearance. The flea beetle species that attacks eggplant and tomato family crops cause similar damage during the warm summer months.

HOST PLANTS Arugula, mustard, bok choy, cabbage-family crops, potatoes, eggplant, tomatoes.

PREVENTION

- Rotate crops, when possible to prevent flea beetles from returning the following year.
- Use row covers (Agribon garden fleece) to protect susceptible crops and as your primary defense against this pest.
- Grow most of your mustard and Asian greens in the fall, when flea beetles are much less numerous.
- Because mustard is so attractive to flea beetles in spring, you can plant it along the edge of your garden as a trap crop. Flea beetles will colonize the mustard rather than moving into the rest of the garden.
- Since flea beetles' natural enemies include microscopic braconid wasps, beneficial soil-dwelling nematodes, and a tachinid fly, provide habitat for beneficial insects in and around the vegetable garden. Small-flowered plants such as daisies, cosmos, alyssum, yarrow, dill, fennel, angelica, clover and coneflower attract beneficial insects. Aim to have some of these in bloom throughout the season.

MANAGING OUTBREAKS

- Make white sticky traps to capture flea beetles as they jump.
- You can apply spinosad (a biological pesticide), but flea beetle populations may rebound in a few days, so the fight will not be over.

TIPS

- Delay planting susceptible crops.
- Set out large healthy transplants rather than small ones and do what you can to encourage speedy establishment of transplants. Flea beetles prefer small tender leaves, like those of emerging seedlings, to large thick ones, like those of more mature plants.
- Use thick layers of organic mulch, which may make it difficult for female fleas beetles to deposit eggs near the base of garden plants in late spring.
- Tilling after harvest may kill adults settling in for the winter.

CONTROLLING FLEA BEETLES SPRAYS

Sprinkle vulnerable crops lightly with water midday, since flea beetles prefer dry conditions. Apply garlic spray to vulnerable crops.

STICK UPS

Install white sticky traps every 3-5 ft. among vulnerable plants. formulations. Hang traps at plant height close to plants. Keep traps clean and sticky. When traps are covered with insects and soil, carefully dispose of the soiled plastic and replace.

INSECTICIDAL SOAP

Apply insecticidal soap when seedlings have their first leaf-like growth. The soap can burn the leaves of some plants, so test first. Apply to just a few plants, then wait 48 hours before a full-scale spraying. To be effective, spray must douse the insects. Insecticidal soap does not affect insects once it has dried on leaves. Avoid spraying during the heat of the day. On a sunny day, rinse soap off plants a few hours after spraying.

NEEM OIL

NEEM has natural insecticidal properties and is non-toxic to birds and mammals. It discourages flea beetles by making treated plants unpalatable.