

Insects in the Garden-

Compiled by Wendy Maddox, for GEG, May 19, 2012

Aphids-Tend to munch on fast growing tips. Wash off with insecticidal soap. Do not apply quick acting high nitrogen, use a slow release type, such as compost. Plant alyssum to lure in beneficial insects to eat them. Hot Pepper Wax will deter them on Roses.

Cabbage (and Broccoli) worm-Use *Bacillus thuringiensis* or dust food grade Diatomaceous Earth during seedling establishment and early head formation, or install row covers.

Cutworms- block cutworm by using rigid collars (made from plastic drinking cups or cardboard tissue rolls) to protect young seedlings from damage. Cultivate the soil's surface once or twice before planting to expose to birds. Delay planting out until seedlings are sturdy, as cutworms go after the weaker plants.

Flea beetles- are common on early tomatoes, potatoes, eggplant, horseradish, and beans. Flea beetles are most damaging to plants that are in seedling stages or struggling to become established after transplanting. Plants that are actively putting on new growth are little affected by flea beetles, try feeding compost tea or seaweed emulsions to spur growth. Plant radish and daikon as trap crops to lure the beetles away from broccoli. Diatomaceous earth, horticultural oils and some Neem-based insecticides act as repellents. Use row covers or grow susceptible greens in fall rather than spring.

Greenhouse Whitefly-Do not buy infected plants. Spray insecticidal soaps and/ or Neem oil to underside of leaves.

Hornworms -defoliate tomatoes, potatoes, eggplants, and peppers in midsummer and are the larvae of hawk or sphinx moths, also known as hummingbird moths. They feed on the interior of the plant during the day and move to the outside of the plant at dawn and dusk when you can pick them off and drop them into a bucket of water. Turning up the soil after harvest will destroy any pupae that linger. *Bacillus thuringiensis*, or BT is effective, especially on smaller larvae. The parasitic wasp that lays its eggs (which look like white rice kernels) on the hornworm's back, are common and if found, such worms should be left in the garden so the emerging wasps can parasitize other hornworms. Zinnias and borage as good companion plants for reducing hornworm problems. Or put them in cages with a sacrificial plant and let the kids watch them evolve.

Japanese beetle-spends its grub stage underground, slow them down by spreading milky spore disease over the lawn in spring. Knock them off into a bucket of soapy water early in the morning. Plant white geraniums among the beans, the leaves deter the beetles. Cover bush beans with row covers.

Mexican bean beetle-Round, yellow eggs with pale yellow larvae. Dust with diatomaceous earth (using holey socks) while plants are morning damp. Cover bush beans with row covers; it's a little harder to cover pole beans. Interplant potatoes and beans; each repels the other's favored pest. Plant the main crop of beans so that they mature before July 15th, when the beetles start damaging beans.

Parsley worm-turns into the black swallowtail butterfly, and will eat parsley, dill and the occasional carrot- plant extra so there is enough for your needs and theirs

Slugs - Pull mulch away from base of plants and apply a ring of wood ash or diatomaceous earth . Chickens eat them. Use Beer as bait.

Stinkbugs- Plant beans and corn as early as possible to beat the July invasion. Consider screening them out using row covers/ high tunnels over beans and tomatoes. Knock into soapy water early in morning. Trap using plastic pots within larger pots.

Squash Vine Borers- The adult borer resembles a wasp about 1/2 inch long with an orange abdomen with black dots. It emerges from cocoons in the soil in mid to late June to lay eggs at the base of susceptible plants. One week later, the eggs hatch and the larvae bore into stems to feed for four to six weeks, then they exit and burrow about two inches into the soil to pupate until next year. Planting summer squash in early July will avoid the adults egg laying time. Trap the adults by setting out yellow bowls of water in early June and place floating row covers over the squash plants as soon as you see the adults, keeping them covered only until they begin to flower. Cultivation at the base of the plants will expose the pupae to air. Destroy any affected vines and rotate crops. Long-vined, open-pollinated varieties of summer squash (zucchini and yellow crookneck, for example) may fare better than hybrid bush types, because OP varieties are more likely to develop supplemental roots where the vines touch the ground.

Above Information sources:

<http://www.motherearthnews.com/organic-gardening/organic-pest-control>

<http://www.colostate.edu/Depts/CoopExt/4DMG/index.htm>

Diatomaceous Earth <http://diatomaceousearth.net>

Row cover material- <http://www.johnnyseeds.com/p-5455-agribon-ag-15-118-x-50.aspx> and <http://gurneys.com/floating-row-cover/p/2005/>

<http://www.gardeners.com/Summerweight-Garden-Fabric/11749,default,pd.html>

<http://whizbangrowcover.blogspot.com/2010/01/space-9.html>

bird and deer fencing, hoop houses, etc www.FarmTek.com

ALWAYS FOLLOW LABEL DIRECTIONS WITH ANY PESTICIDES. MORE IS NOT BETTER.

Good Healthy Garden Habits

Clean up and destroy any diseased or insect problematic plant debris on a regular basis. Do not throw them on the compost pile

Place newspapers or cardboard down between rows and mulch with old hay on top of that for an improved weed barrier. It will all be gone next spring.

Rotate your veggie crops. Keep track of where you planted last year and the year before and do not plant anything from the same family for three years in that spot. Potatoes, tomatoes and Eggplant are all in the Solaneacea family. Cabbage, brussel sprouts, broccoli and cauliflower are all in the Brassica family. Most of the squashes and cucumbers are in the Cucurbit family.

Work the soil up around the plants to expose critters in the soil a couple of times before you mulch them in. This also gives the soil a bit of time to dry and warm some before applying the coolness of the mulch.

Try not to walk in the naked garden rows when the soil is wet as it compacts it. Never work soil when it is wet as it destroys the tilth. Wait until it is friable and will crumble freely in your hand .

Do not let your vegetables sit in the garden and become overripe as it invites pests and disease. Chop up and bury old veggies in the compost pile or feed to livestock. Earworms really like overripe corn.

Do not side dress with extremely fresh manure, especially chicken manure, mix it with some carbon rich leaves or hay and let it rot a little first or it will burn your plants.

Cover your compost pile during heavy rains to prevent leaching of the nutrients

Do not pile fresh grass clippings more than one inch deep around plants, either dry them out first or mix it with old leaves or other compost as it can burn plants. Clipping clumps left on your blacktop drive will eat into it as well.

Chop up leaves in the fall with the lawnmower and throw them on the garden and work them in the spring or compost them

Remember, if an insect won't even eat it you probably shouldn't either.