

## Common Garden Pests – 8/23/17

**Squash Bugs:** The squash bug sucks sap from the leaves and stems of squash and pumpkins and causes the leaves and shoots to blacken and die back; attacked plants fail to produce fruit. This insect can also feed directly on the fruit and cause severe damage. Winter squash are most severely affected.<sup>1</sup> They live through the winter in protected areas both under debris in the fields and in buildings and lay eggs on the underside of leaves in the spring and summer. The eggs hatch into light green or gray nymphs that congregate on leaves or fruit.<sup>2</sup>



Photo by Whitney Cranshaw, Colorado State University, Bugwood.org

**Control: Trapping:** Adults tend to congregate under shelter at night. Place boards on the soil surface near the squash in the evening and the next morning collect and destroy pests. Destroy egg masses on the underside of leaves.

**Handpick:** Scout for and destroy reddish to brown eggs and handpick all stages of squash bugs from undersides of leaves.

**Protect:** Avoid heavy mulch around squash – squash bugs like shelter!

**Tomato Hornworm:** Two species are common pests: tomato hornworm and tobacco hornworm. Larvae of both species consume leaves, stems, and fruit of nightshade family plants. Feeding can kill young plants. In June and July, moths emerge from soil borne pupae; adults lay eggs on undersides of leaves; eggs hatch in a week; larvae feed for a month, then pupate in soil until the following summer.<sup>1</sup>



Photo by Whitney Cranshaw, Colorado State University, Bugwood.org

**Control: Handpick** from foliage; pick off and destroy eggs. The caterpillars are well camouflaged; look for the large droppings beneath plants. Do not destroy hornworms that have white, ricelike pupae attached to their backs, as these indicate the worm has been parasitized by wasps (a good bug for the garden!)

**Colorado Potato Beetle:** Adults and larvae chew leaves of potatoes, tomatoes, eggplants, and related plants, including petunias. Feeding can kill small plants and reduce yields of mature plants. Colorado potato beetles overwinter as adults and hibernate in the soil close to where previous host crops were grown. They emerge in the spring and primarily crawl to new hosts where they feed and lay eggs. Females lay up to 1,000 eggs during their lifespan of several months. The resulting larvae and successive generations can quickly defoliate a crop.<sup>1</sup>



Photo by Fritz Geller-Grimm

**Control: Trapping:** When overwintering adults begin to emerge, shake adults from plants onto a dropcloth in the early morning. Dump beetles into soapy water.

**Handpick:** Pick off adults and larvae and scout for eggs on undersides of leaves and destroy.

**Protect:** Mulch plants with a layer of straw at least 4 inches deep; cover plants with floating row cover until harvest; at last resort, spray infested plants with neem, or a bacterial insecticide, Bt (*Bacillus thuringiensis*).

**Cabbageworms:** Larvae eat large, ragged holes in leaves and heads of cabbage plants, soiling leaves with dark green droppings. Adults emerge from overwintering pupae in early spring to lay eggs. Larvae feed for 2 to 3 weeks, and then pupate in debris on soil surface; adults emerge in 1 to 2 weeks. Potential for 3 to 5 overlapping generations to be present per year.<sup>1</sup> The large white butterflies of the imported cabbageworm can easily be seen



Photo by Alton N. Sparks, Jr., University of Georgia,

during the day feeding on nectar from wild and cultivated crops, or moving from plant to plant laying eggs. Adult flights are a good warning of later potential problems on cultivated crucifers.<sup>2</sup>

**Control:** *Handpick:* Scout for and destroy eggs; handpick larvae.

*Spray:* Apply garlic or hot pepper spray weekly, starting when butterflies appear. As a last resort, spray with a bacterial insecticide, such as Bt, when you find small cabbageworms on foliage.

**Cucumber Beetle:** In the Northeast, they pass the winter as adults sheltered under plant debris and become active in the spring as soon as cucurbits appear. The overwintered generation lives until August and feeds on all plant parts. Small seedlings are very susceptible and are often killed. Once the plants attain 4-5 true leaves, they are more tolerant of this pest. The beetles lay their eggs at the base of the plants, and these hatch into larvae, which feed below ground on the roots and crowns of the plants. The cucumber beetle also carries the organism that causes bacterial wilt, which can be more damaging than the insect. Cucumbers, summer squash, zucchini and melons are the most susceptible.



**Control:** *Handpick:* Scout for and destroy eggs; handpick larvae and adults.

*Protect:* Cover plants and seedlings with floating row cover until flowering.

*Spray:* Apply kaolin clay to undersides of leaves, reapply after rain.

**Slugs:** Slugs rasp large holes in foliage, stems, and bulbs. They feast on any tender plant or shrub and may demolish seedlings. They thrive wherever conditions are moist and where living or recently dead plant material is present. Slugs are generally worse in wet years.<sup>2</sup>

**Control:** *Trapping:* Trap under flowerpots or boards. Attract with pieces of raw potato or cabbage leaves set out in the garden; collect and destroy every morning. Trap in shallow pans of beer buried with the container lip flush to soil surface.

*Protect:* Wide bands of coffee grounds, wood ashes, or diatomaceous earth around plants can deter slugs.

*Handpick:* Pick off slugs and drop in soapy water.



Photographed by Guttorm Flatabø

**Earwigs:** Adults are wingless or have wings, but rarely fly; they also rarely pinch. Earwigs are omnivorous and primarily feed on decaying organic matter as well as some pest insects, including aphids and other insect larvae. They are beneficial in compost piles and as pest predators, but a nuisance when attracted to dark, moist areas in crevices of plants. They chew irregularly shaped holes in plant leaves and flower petals; tunnel into flower buds, and also consume seedlings.



Photo by Assafn

**Control:** *Trapping:* Earwigs love damp, dark places. You can set up a simple trap by sprinkling some oatmeal on dampened newspaper and rolling or crumpling it up. Set it out overnight in your garden, and the next morning collect and dump trapped pests in soapy water.

*Protect:* Bay leaves and diatomaceous earth have both been shown to keep earwigs away from your plants. Sprinkle a small amount of one or both around the base of infected plants.

**NOTE: IF YOU CHOOSE TO PURCHASE AN INSECTICIDE (EVEN IF IT IS ORGANIC!) READ THE LABEL CAREFULLY AND DO YOUR HOMEWORK ON THE PRODUCT. EVEN ORGANIC INSECTICIDES CAN CAUSE HARM TO NON-TARGET SPECIES, INCLUDING HONEYBEES!!**

### References

- <sup>1</sup> Bradley, F.M, Ellis, B.W., Martin, D.L., 2009. *The Organic Gardener's Handbook of Natural Insect and Disease Control*. Rodale Press, New York, NY.
- <sup>2</sup> Caldwell, B., Rosen, E.B., Sideman, E., Shelton, A.M., Smart, C.D., 2005. *Resource Guide for Organic Insect and Disease Management*. New York State Agricultural Experiment Station, Geneva, NY. Available online from:  
<http://web.pppmb.cals.cornell.edu/resourceguide/>