

## Insect/Disease Information

### VEGETABLES

#### Grasshopper Damage to Foliage



Light injury from grasshopper feeding has been seen on a variety of vegetable plants, leaving random, ragged holes in leaves. This type of feeding will not cause a reduction in yield, but grasshoppers have been known to cause severe damage. They are most common where vegetable fields border rangeland, pasture, roadsides, fence rows, etc.

Grasshoppers overwinter as eggs and hatch in mid to late spring. They thrive in hot, dry seasons. Population sizes vary from year to year depending on a variety of factors (weather, diseases, vegetation, etc.) so it is difficult to predict whether treatment is necessary.

Controlling grasshoppers is difficult in that they can travel great distances and may not remain in one area long enough for an insecticide to be effective. As such, it is recommended that growers or small communities work together in spring to control grasshoppers in hatching areas so that the treated area is widespread. Newly hatched nymphs are most susceptible to insecticides.

There are dozens of insecticides registered for use on grasshoppers including acephate, synthetic pyrethroids, carbaryl, and malathion, and all can also be used as a temporary treatment for localized outbreaks. A bait that contains the protozoan *Nosema locustae* (NOLO Bait) is an alternative to spraying. It kills only grasshoppers and crickets, but is slow-acting (4-6

weeks), and must be ingested. It works best when applied to hatching areas of sparse vegetation.

#### Thrips

Last week we mentioned thrips on melons and cabbage and this week they were found on foliage of snap peas. Continue to monitor your plants and treat only if necessary (if you see more than 5-6 nymphs per leaflet).

*Treatment:* azadirachtin (Azatin), spinosad (Conserve), *Beauveria bassiana* (Botanigaurd), lambda-cyhalothrin (Warrior)



#### Flea Beetles on Corn

We discussed flea beetles in the May 16 advisory ([click here](#)). Continue to monitor for this pest on vegetable plants, in particular sweet corn. As plants mature, they can withstand greater damage.

#### Aphids on Potatoes

Migration of aphids (green peach and potato) from weed and other hosts into potato fields is occurring or will occur shortly. Light feeding will not harm plants, but heavy feeding and leaf curling of young plants causes stunting and loss of vigor. Monitor plants by looking under leaves of edge plants first. In problem areas, scout weekly and apply treatment if more than 5% of plants are affected.

*Treatment:* insecticidal soap, imidacloprid (Provado), esfenvalerate (Adjourn), thiamethoxam, permethrin (Lilly Miller, Ortho, Pounce),

#### Variegated Cutworm

Adults of variegated cutworm are flying now, and laying eggs on a variety of vegetable hosts including peppers, radishes, rutabaga, and lettuces. The variegated cutworm is a climbing cutworm, and causes the most damage through late season feeding on potato plants and tomato fruits. All season, however, this cutworm can cause damage, feeding only at night, by chewing irregular holes on the interior or edges of leaves.

## Insect/Disease Activity, continued



Frank Peairs, Colorado State University

Often natural insect predators and birds will control the cutworm population. Hand-removal at night is an option on small sites. During the day, larvae can be found resting near the base of the plant. Insecticides should only be applied after consistent monitoring.

*Treatment:* Bt (*Bacillus thuringiensis*; Biobit HP, Dipel), bifenthrin (Ortho Bug-B-Gone Max), Lannate, spinosad (Success), carbaryl, malathion

## BRAMBLES

### Raspberry Crown Borer



University of Georgia Plant Pathology Archive

Raspberry crown borer adults will be emerging from plants later in the summer, but now is a good time to see if you have damage in your field as the larvae are still active. Look for canes that are wilting or dying back. Often leaves will start to shrivel up, resembling drought injury. Affected canes are usually easy to pull out of the ground by hand. Control is best done by insecticide applications in the fall. Recommendations will be made at that time.

### Raspberry Horntail



look for frass inside the upper cane to positively identify raspberry horntail feeding

Continue to scout patches for wilting terminals and cut canes down to a location where you don't see any frass in the cane. Destroy cuttings.

**Precautionary Statement:** Utah State University Extension and its employees are not responsible for the use, misuse, or damage caused by application or misapplication of products or information mentioned in this document. All pesticides are labeled with ingredients, instructions, and risks. The pesticide applicator is legally responsible for proper use. USU makes no endorsement of the products listed herein.

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