

Insect/Disease Information

VEGETABLES

Cold (Chilling) Injury on Tender Vegetables



Manitoba Ag., Food, and Rural Initiatives

If you have noticed some water-soaked lesions, wilted leaves, or bleached foliage then your tender vegetables may have been injured by cold. They are susceptible to cold injury below 45 to 50° F. Cold (also known as chilling) injury is successively worse with cooler temperatures and/or longer exposure. Depending on the degree of injury, plants can be killed. The most susceptible plants are melons, squash, cucumber, pumpkins, eggplant, pepper, and basil.

Plants affected by cold injury can recover, but will grow slower than healthy plants. Good news is that evening temperatures are forecasted to warm to the 50s for much of the Wasatch Front. In northern Utah, Carbon County, and other exposed sites, however, evening temperatures remain in the 40s and vegetables will need continued overnight protection.

Diamondback Moth

A cabbage sample from Salt Lake County was submitted to the Utah Plant Pest Diagnostic Lab and the pest causing damage was identified by our Arthropod Diagnostician, Ryan Davis, as diamondback moth.

Diamondback moth is not a common pest in Utah, but is a serious pest in much of the world's warmer agriculture regions. It overwinters as an adult moth in protected areas, and starts



Whitney Cranshaw, Colorado State University

flight in early spring. Mated females lay eggs on the leaves of **cabbage and other cole crops**. Larvae hatch within a few days and their feeding creates holes throughout the plant. There are multiple generations lasting to the end of summer. These are very small larvae when full grown, and with their green color, can be difficult to locate at first.

This pest has developed resistance to many pesticides and in fact, is one of the few known cases of Bt (*Bacillus thuringiensis*) resistance (in Hawaii and parts of Asia). In areas where it has not developed resistance, Bt is a highly effective control option. Treatments should be applied when 5% of the plants are infested and before larvae move to the hearts of the plants.

Treatment: Bt (Dipel, Green Light), spinosad (Spintor, Success, Entrust, Green Light, Monterey), indoxacarb (Avaunt), renaxypyr (Coragen), spinetoram (Radiant), carbaryl (Sevin), esfenvalerate (Ortho Bug-B-Gone), and others

Colorado potato beetle

Colorado potato beetles are just beginning their feeding and breeding activity. They feed primarily on leaves of **potatoes** and sometimes on **tomatoes, eggplant, and peppers**. These beetles overwinter as adults in soil or leaf litter and emerge in May. Because of our cooler weather, their emergence has been slow.

After mating, females can lay up to 300 eggs each, scattered in bunches of 10-40 on the undersides of leaves. Upon hatching 4-5 days later, larvae and adults feed continuously on leaves until pupating. There are multiple generations in Utah.

Insect/Disease Activity, continued



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Monitor fields or individual plants for Colorado potato beetle adults now by shaking a stem over a white cloth. If adults are found, look under leaves for egg masses. Treatment threshold is 25 beetles per 50 plants and a 10% defoliation level.

Treatment: Hand-pick beetles regularly and immerse in soapy water; azadirachtin (Azatin, Abamectin), neem oil (Concern), spinosad (Spintor, Success, Entrust, Green Light, Monterey), indoxacarb (Avaunt), spinetoram (Radiant), carbaryl (Sevin), esfenvalerate (Ortho Bug-B-Gone), and others.

Cutworms

Watch **sweet corn** plantings and fields for cutworms now. Treatment is recommended when 3% of plants are cut or 10% of leaves have feeding holes.

Treatment: Bt (Dipel), spinosad (Success, Spintor), spinetoram (Radiant), indoxacarb (Avaunt), permethrin (Pounce), esfenvalerate (Asana, Ortho Bug-G-Gone), and others.



Clemson University - USDA Cooperative Extension Slide Series

Western Striped Cucumber Beetles



Whitney Cranshaw, Colorado State University

As the weather warms this coming week, we will start to see more cucumber beetles on **cucumber, melons, squash, and other cucurbits**. When left uncontrolled, the adult can be a severe pest in Utah, feeding on leaves and fruits. The larvae can feed on roots.

It is important to regularly scout your plants or fields at this early time of the season because populations can build quickly, especially on some squash varieties. Also, beetle feeding can kill newly emerged or transplanted seedlings. Check all plants in the small garden, and in fields, check edge plantings and a random sampling of inner plants. Look at all parts of the plant and upper and lower leaf surfaces.

IPM tactics to manage cucumber beetles include row covers over the plants until flowering begins, delaying planting until late May, using mulch to prevent egg-laying, limiting irrigation near harvest, and removing all plant residues after harvest.

[Click here](#) for USU fact sheet on cucumber beetles.

Treatment: spinosad (Entrust, Success, Green Light), spinetoram (Radiant), carbaryl (Sevin), azadirachtin (Azatin), kaolin clay (Surround), pyrethroids (Asana, Pounce, Warrior), and others

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.

Small Fruits & Vegetables IPM Advisory

is published weekly by Utah State University Extension

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