

Small Fruits & Vegetables **IPM** Advisory



Weekly Pest and Production Update, Utah State University Extension, June 6, 2008

Insect/Disease Information

VEGETABLES

Spider Mites

Spider mites overwinter as red-colored, mated females in ground debris. They seek out groundcover plantings, including many vegetables, in spring for feeding and egg-laying on the undersides of leaves. They feed by piercing the plant tissue and sucking out the juices, leaving a stippled pattern of damage on the leaf surface.

Scout vegetables for spider mites now. They are reproducing very slowly in this cool weather, so colonies may be hard to find. Use a 10x hand lens. The threshold for mites in commercial fields is 20-30% infested crowns with 1-2 mites per leaf.

Treatment: Acramite, Agri-Mek, Kelthane, Oberon (commercial); insecticidal soap, hort. oil (residential)

Leafhopper

Leafhopper nymphs are active now, feeding on the underside of leaves causing damage similar to spider mite feeding. Leafhopper feeding alone does not cause serious damage to vegetables, but some can carry virus or phytoplasma diseases,



nent of Entomology, Bugwood.org

including the beet leafhopper, which spreads curly top virus to tomatoes. As a general guideline, controls in spring should be applied for leafhoppers on commercial fields when one nymph per every 10 leaves is found.

Treatment: Asana, Assail, Actara, Pounce, Provado, Surround (commercial); kaolin clay, insecticidal soap, esfenvalerate (Ortho Bug-B-Gone) (residential); and many others

Imported Cabbageworm



Although somewhat rare, imported cabbageworm does occur in Utah. They overwinter as pupae, and the adult, a creamy white butterfly with two black spots on its wings, emerge in spring. Where present, adults are actively laying eggs now on cole crops. Eggs hatch within 3-5 days. The larvae are hairy-green and have a yellow stripe along their backs.

As you scout your plantings, look for these larvae. Localized infestations are not expected, but if present, treat when 10% of plants have active larvae.

STRAWBERRY

Two-spotted Spider Mite

Spider mite damage is most often noticed during the hot mid to late summer months, but late spring is the optimal time to monitor and apply treatments (in commercial sites) if necessary. If infestations are heavy and continue from year to year, reductions in yield and plant health will occur.

Inspect the field (5-10 locations) or backyard plantings, once/ week for spider mites damage and activity throughout the

Insect/Disease Activity, continued

growing season. Look for stippling on leaves, and turn leaves over to look for mites and eggs. A 10-20x hand lens will be necessary to see these small pests. For commercial fields, if 25% or more of your sampling area is infested with mites, a control may be warranted. (Control in residential settings is not necessary until leaf burning is present in late season.)

Keep in mind that there are many beneficial predators of spider mites that are susceptible to pesticides. The mite, *Typhlodromus occidentalis* is one of the most important predators of spider mites in Utah. In a "balanced" ecosystem, the spider mite population is kept in check. Applications of pesticides kill both mite species, but because spider mites are more prolific and some have developed resistance, their population can spike soon after a pesticide application.

Treatment: Acramite 50WS, Agri-Mek, Kelthane 50WSP Oberon (commercial)

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

Editor: Marion Murray, marion.murray@usu.edu click here for archived advisories