Tarsenomeid Mites on New Guinea Impatiens

Broad mite and cyclamen mite are tarsenomeid mites that damage a variety of bedding plants. This week, they were found on a small group of New Guinea impatiens in a greenhouse. Control measures are necessary to make sure this small population does not spread to more plants. Cooler weather helps these mites flourish. As greenhouses in Maryland heat up in June and July, damage usually trails off at a time when many of the bedding plants have been sold into the marketplace so the problem may be going out the door then.

Broad mites and cyclamen mites are extremely small which makes it difficult to detect the mites before severe feeding damage is evident. The mites hide in dark, moist areas within tender buds or deep within the flower further hindering detection. Cyclamen mites are shiny and elliptical in shape with four pairs of legs. Females are translucent yellow-to-orange whereas males are light brown with a claw on each back leg. Broad mites are slightly smaller than cyclamen mites and are colorless-to-pale brown with a white stripe down the center of their backs.

One way to distinguish cyclamen mites from broad mites is by the egg stage. Cyclamen mite eggs tend to be laid in dark, moist areas. Eggs are smooth, elliptical and about 1/2 the size of the adult female. Broad mite eggs are elliptical but are covered by small whitish bumps that look like rows of diamonds. Broad mite eggs tend to be laid so they are more exposed on the underside of the leaf or stem surface than cyclamen mite eggs. Cyclamen mites prefer to feed in buds and young leaves. Leaves curl inward and develop a puckered appearance. Pit-like depressions can also form. Leaves may become brittle or appear streaked. Flowers can become shriveled and discolored. Sometimes, flower buds may not open at all. Cyclamen mites have a broad host range and can feed on New Guinea impatiens, cyclamen, dahlia, gloxinia, ivy, snapdragons, vinca, chrysanthemum, geranium, fuchsia, begonia, and petunia.

Broad mites inject a toxin from their saliva as they feed. Leaves become twisted, hardened and distorted with bronzed lower surfaces. Young terminal buds can be killed. Leaves frequently turn downward. Broad mites, like cyclamen mite, have a wide host range and can feed on ageratum, begonia, cyclamen, dahlia, gerbera, gloxinia, hibiscus, ivy, jasmine, impatiens, New Guinea impatiens, lantana, marigold, snapdragon, verbena, and zinnia.
Many of you are growing vegetable transplants and broad mites can infest vegetable transplants such as beans, peppers and tomatoes. Check your plants. Both broad and cyclamen mites are too small to be seen without the aid of a microscope. Regular inspection of crops for their feeding is needed. These mites tend to avoid light and are found in the crown of host plants. If characteristic symptoms are seen, send samples to an entomologist at your local Extension office to confirm identification.

**Control options include:** Bifenazate (Floramite), Fenpyroximate (Akari), Chlorfenapyr (Pylon), Pyridaben (Sanmite), and Spiromesifen (Judo).

**Botrytis Control on Peony**

In reponse the April 25, 2014 report, Ko Klaver, Botanical Trading Company, noted that another option for Botrytis control is Pageant. He noted that he finds it works well on peonies.

**A Tale of Two Leaf Spots on Zinnia**

Two leaf spots are often found on zinnias. *Alternaria* is a fungal leaf spot that produces lesions start out as small dark spots, very similar to those caused by *Xanthomonas*, a bacterial pathogen of zinnia. As the disease progresses in the greenhouse, spots caused by the fungus *Alternaria zinniae* become larger and develop dark concentric rings. Unlike leaf spots caused by *Alternaria*, bacterial leaf spots usually remain small and somewhat angular in shape, and often have a yellow halo around the necrotic spot. Both diseases can be introduced to a crop through contaminated seed and spread from plant to plant via splashing water. Infections usually begin on lower leaves and move upward in the plant canopy. High humidity, overhead irrigation and close plant spacing promote long leaf wetness periods which favor disease development. Cultural practices to help minimize both diseases are similar – rogue out symptomatic plants, promote good air circulation and alter irrigation practices to keep foliage as dry as possible.

**Chemical options:** Fungicides labeled for controlling Alternaria leaf spot include chlorothalonil, fludioxonil, and mancozeb.
June 19, 2014 – A Chance for the Horticulture Industry to Learn and Have Fun

Tidal Creek Growers in Davidsonville will open their doors for The Maryland Greenhouse Growers’ Association and the University of Maryland Extension. This event will be both educational and good general fun. There will be competitive games organized by Ginny Rosenkranz, entertaining live music, and great food. Bring your family along to enjoy the late afternoon to evening event.

Tidal Creek Growers is a plant production greenhouse operation that is known for its production of high quality greenhouse plants. The site for the field day will feature over 5 acres of greenhouse growing area. The owner is Jake Van Wingerden and the head grower is Mike Leubecker who will lead the tours of the facilities.

Here is what professional horticulturists will see during the tour of the facility:

- How to produce high quality poinsettias, pansies, mums, and hydrangeas.
- How to get the most out of a flood irrigation and boom irrigation system.
- Use of a shaping and trimming mechanical device for herb trees and other specialty crops.

The University of Maryland Extension will have educational displays on water and nutrient management with Andrew Ristvey; Insect and Disease diagnosis and control options with Karen Rane, David Clement and Stanton Gill; How to calibrate fertilizer injectors with Chuck Schuster.

The featured topic will be: What do Garden Centers Want from Greenhouse Growers?

Featured Speaker: Carrie Engel, Valley View Garden Center and Nursery, is one of the top speakers from the garden center industry in Maryland. Carrie Engel works for one of the most successful garden center operations in the Baltimore area – Valley View Garden Center and Nursery. Carrie is the greenhouse manager and buyer for annuals, vegetable plants, tropical plant material and holiday plants for Valley View Farms. She has managed the plant department since 1985. Carrie appears on WBAL TV two times a week talking about gardening and answering viewers’ questions about plants.

Registration details will be coming soon.

Upcoming Programs
Go to http://extension.umd.edu/ipm/conferences

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<td>Greenhouse Biocontrol Conference</td>
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<td>Stormwater Management Program</td>
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Read labels carefully before applying any pesticides.

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