VEGETABLE CROPS HOTLINE

A newsletter for commercial vegetable growers prepared by the Purdue University Cooperative Extension Service

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No. 453
July 29, 2005

<http://www.entm.purdue.edu/entomology/ext/targets/newslett.htm>

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FINDING VEGETABLE PRICE INFORMATION - *(Liz Maynard)* - Current prices in national wholesale vegetable markets are available on the internet from USDA's Fruit and Vegetable Program <www.ams.usda.gov/fv/mncs/index.htm>. A new portal allows users to customize the report information they see, but the individual text reports are still available and will probably be faster for dial-up internet connections. Anyone may request e-mail subscriptions to individual reports at no charge.

Reports on shipping point trends provide current FOB price ranges and quantities shipped for the previous 3 weeks. Reports on cantaloupes (muskmelons) and watermelons from SW Indiana are included (see example below).

For fruit reports, including melons, see <www.ams.usda.gov/mnreports/WA_FV150.txt>.

For vegetable reports, see <www.ams.usda.gov/mnreports/WA_FV154.txt>.

For potatoes and onions, see <www.ams.usda.gov/mnreports/WA_FV158.txt>.

These trends are also available in one location from The Packer web site at <www.ams.usda.gov/mnreports/WA_FV158.txt>

Terminal market reports provide daily prices for vegetables sold at terminal markets across the U.S. Reports for Chicago, St. Louis, and Detroit are among those included. The Chicago reports are available at the following links: Vegetables <www.ams.usda.gov/mnreports/HX_FV020.txt>

Fruits (including melons) <www.ams.usda.gov/mnreports/HX_FV010.txt>

Potatoes and onions <www.ams.usda.gov/mnreports/HX_FV030.txt>.

Local price information is not as widely available. Indiana has several produce auctions from which price reports may be obtained. Contact information is provided below.

Prices at farmers' markets across the country are reported on the New Farm web site, <www.newfarm.org/opxgr/state.php?stid=16>. Four Indiana markets are listed, but as of this writing no prices are listed for them. That may change, so it is worth checking back later. Volunteers do price reporting for these markets.

New Farm also reports organic and conventional prices at selected terminal markets <www.newfarm.org/opx/>. The monthly Growing for Market Newsletter <www.growingformarket.com/> includes organic price reports, but these are not available on-line.

USDA/AMS Shipping Point Trends Report for Indiana Cantaloupes - July 26, 2005---CANTALOUPES INDIANA---Shipments 0-8-13---Movement expected to rmain about the same. Trading farily slow. 24 in bins Athens 70's mostly 65.00-75.00, 80's mostly 65.00-75.00, 90's mostly 65.00-75.00. Quality generally good. *Note: SHIPMENTS REFER TO WEEKS ENDING JULY 9, 16 AND 23, 2005 IN THAT ORDER 1 THOUSAND HUNDERDWEIGHT (CWT) (100,000 LBS) UNITS.*

Selected Indiana Produce Auctions:

Clearspring Production Auction, LaGrange. (219) 463-4131.

Rockville Produce Auction, Rockville. (765) 569-6840.

Wakarusa Produce Auction, Goshen. (574) 862-2740.

VARIETY TRIAL HARVESTS IN NORTHERN INDIANA- (Liz Maynard) - Harvest of sweet corn variety trials at the Pinney-Purdue Ag Center will begin this week. Fresh market tomato, and bell and jalapeno pepper harvests will begin shortly. Lists of varieties in the trials will be available at <http://faculty.pnc.edu/emaynard/nwch/>. We also have a drip irrigation trial on pumpkins, and a trial of five pumpkin varieties no-till transplanted or direct-seeded into wheat stubble. Growers and others interested in seeing the trials are welcome to stop by. Pinney-Purdue is just north of US 30 on County Line Rd. between LaPorte and Porter Counties. Please e-mail at least a day in advance, or call anytime to make sure someone will be there: (219) 785-5673, (219) 508-1429 (cell), emaynard@purdue.edu.

What Is Extreme Heat? - (*Brenda Nowaskie)* - The following information came directly from the Centers for Disease Control and Prevention website at <www.bt.cdc.gov/disasters/extremeheat/>. Temperatures that hover 10 degrees or more above the average high temperature for the region and last for several weeks are defined as extreme heat. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground. Excessively dry and hot conditions can provoke dust storms and low visibility. Droughts occur when a long period passes without substantial rainfall. A heat wave combined with a drought is a very dangerous situation.

Hot Weather Health Emergencies - Even short periods of high temperatures can cause serious health problems. Doing too much on a hot day, spending too much time in the sun or staying too long in an overheated place can cause heat-related illnesses. Know the symptoms of heat disorders and overexposure to the sun, and be ready to give first aid treatment.

Heat Stroke - Heat stroke occurs when the body is unable to regulate its temperature. The body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Body temperature may rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not provided.

Recognizing Heat Stroke - Warning signs of heat stroke vary but may include the following:

* An extremely high body temperature (above 103°F, orally)
* Red, hot, and dry skin (no sweating)
* Rapid, strong pulse
* Throbbing headache
* Dizziness
* Nausea
* Confusion
* Unconsciousness

What to Do - If you see any of these signs, you may be dealing with a life-threatening emergency. Have someone call for immediate medical assistance while you begin cooling the victim. Do the following:

* Get the victim to a shady area.
* Cool the victim rapidly using whatever methods you can. For example, immerse the victim in a tub of cool water; place the person in a cool shower; spray the victim with cool water from a garden hose; sponge the person with cool water; or if the humidity is low, wrap the victim in a cool, wet sheet and fan him or her vigorously.
* Monitor body temperature, and continue cooling efforts until the body temperature drops to 101-102°F.
* If emergency medical personnel are delayed, call the hospital emergency room for further instructions.
* Do not give the victim fluids to drink.
* Get medical assistance as soon as possible.

Sometimes a victim's muscles will begin to twitch uncontrollably as a result of heat stroke. If this happens, keep the victim from injuring himself, but do not place any object in the mouth and do not give fluids. If there is vomiting, make sure the airway remains open by turning the victim on his or her side.

Identify Small Insect and Related Pests on Crops - (*Frankie Lam*) – In the past few weeks I have seen many samples and several questions from growers about small pests on field and vegetable crops. Most of the pests in those samples were aphids, mites, leafhoppers, and thrips. It seemed that some growers had difficulty in identifying these pests. I strongly recommend bringing a 5X or 10X hand lens along when scouting for insect pests in fields. With careful inspection for their characteristic features using a hand lens, these pests can be identified easily. As we know, misidentification of pests may lead to the application of a pesticide that has no effect on the control of the insects.

Aphids. Aphids are small insects from 1/16 to 1/8 inch long, depending on species. Many species of aphids attack our crops; the most common aphids in Indiana are the green peach aphid, melon aphid, cowpea aphid, potato aphid, and soybean aphid. Except the potato aphid that is reddish pink in color (Fig. 1), most aphids are pale yellow to dark green in appearance (Fig. 2). In a colony of a same species, there are individuals of yellow

Fig. 1. Wingless (center), winged (right), and mummy (left) potato aphids. *(Photo by Frankie Lam)*

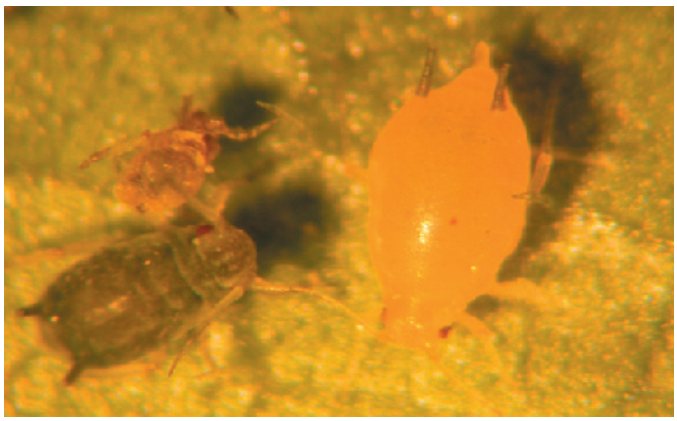

Fig. 2. Melon aphids. *(Photo by Frankie Lam)*

and dark green, and both winged and wingless forms. However, all individuals have two tail-like structures, which are known as cornicles, at the end of the abdomen (Figs. 1 and 2). This structure is the main feature used to identify aphids; no other insects have these structures located at the back of dorsal end. Furthermore, if the aphid is attacked by parasitic wasps, the insect will be tan or light brown in color with a large abdomen (Fig. 1). The parasitized aphids are commonly called mummy aphids (dying aphids).

Spider mite. Spider mites are small (1/80 - 1/60 inch) relatives of spiders, without a hand lens it is difficult to identify the pest. The adult mites are eight-legged, ranging in color from pale yellow to brown. The immatures look similar to the adults, but are six-legged and smaller in size. The most common species of spider mites that attack our crops is the two-spotted spider mite, which has two dark spots at the back of the abdomen (Fig. 3). They produce protective webbing around

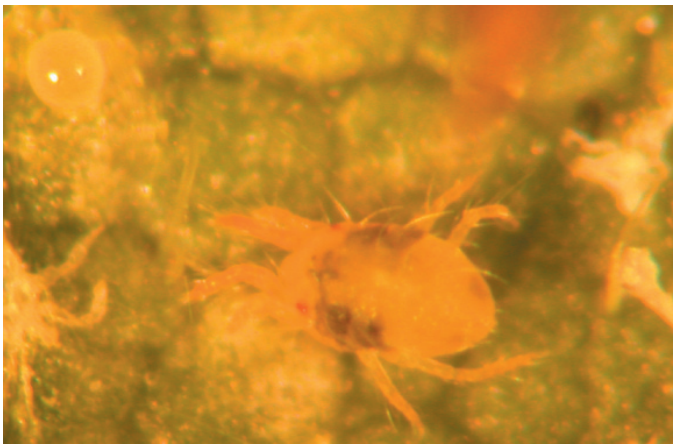

Fig. 3. Adult and egg (left top corner) of two-spotted spider mite. *(Photo by Frankie Lam)*

the area where they feed and lay their eggs. Their eggs are very small, spherical, straw-colored, and shiny (top left corner of Fig. 3). Under optimum conditions (>80°F and <50% RH) the mites can complete their life cycle within five days. The miticides usually cannot kill their eggs; thus, we have to schedule two sprays to control spider mites on vegetables and melons during hot, dry weather.

Potato Leafhopper. The potato leafhopper cannot overwinter in the Midwest. Every summer the population numbers of this insect in the Midwest depend on the number of insects migrating from the southern states during early season. This species is one of the most important alfalfa pests in the eastern and north-central U.S. This pest feeds on more than 100 cultivated and wild plants, including soybean, potato, eggplant, clovers, peanut, and apple. The adult (Fig. 4) has a triangular head with large compound eyes and looks like a small green cicada (1/8 inch long). There are a number of faint white spots on the head and collar (thorax). The nymphs (Figs. 5 and 6) are similar in shape to the adults, but lack wings and are pale in color. Both nymphs and adults are very active. The adults fly or jump when disturbed,

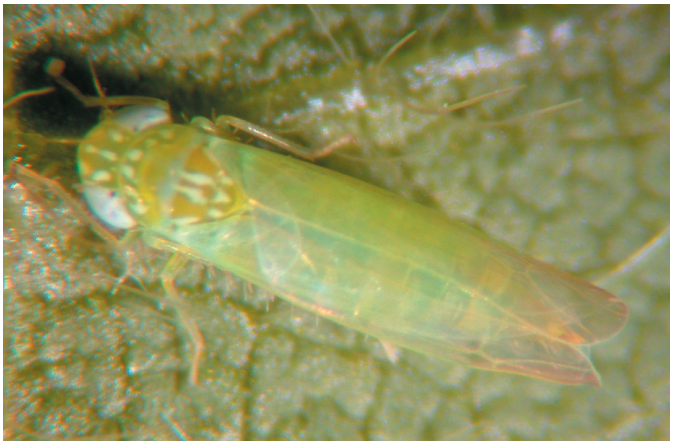

Fig. 4. Adult potato leafhopper. *(Photo by Frankie Lam)*

Fig. 5. Early nymph of potato leafhopper. *(Photo by Frankie Lam)*

Fig. 6. Late nmph of potato leafhopper. *(Photo by Frankie Lam)*

while the nymphs run characteristically sideways across the leaf. Many growers have misidentified these early nymphs on soybean as soybean aphids.

Thrips. Thrips occur commonly in greenhouse and not many species cause severe damage on crops in fields. Thrips are minute, slender-bodied insects from 1/32 to 3/16 inch long. Wings may be present or absent, depending on species. The wings when fully developed are long and narrow, and fringed with hairs (Fig. 7). This type of wing is characteristic of thrips. At rest the wings lay longitudinally at the back of the body looking like

rods (Fig. 8). The antennae are short and the abdomen is elongate and tapers at the end. The immatures look like the adults, but are wingless (Fig. 9).

The methods for the management of these pests would be different for different crops. For corn and soybean, please check the Corn and Soybean Field Guide 2005 Edition (ID-179), whereas for vegetables and melons, please check the Midwest Vegetable Production Guide for Commercial Growers 2005 (ID-56) <www.entm.purdue.edu/entomology/ext/targets/ID/index.htm>. If you have further questions, please call me at (812) 886-0198.

Fig. 7. Most adult thrips has four wings, fringed with hairs looking like feathers. *(Photo by Frankie Lam)*

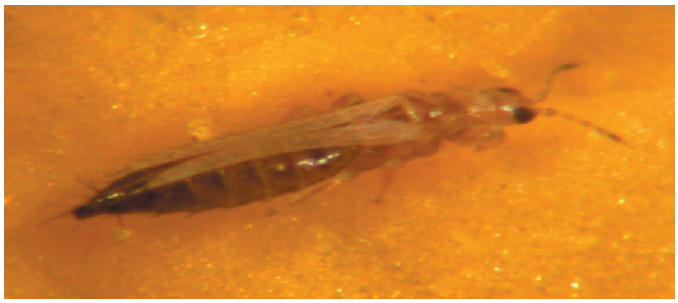

Fig. 8. At rest the wings lay longitudinally at the back of the thrips like rods. *(Photo by Frankie Lam)*

Fig. 9. Wingless immature thrips. *(Photo by Frankie Lam)*

Southwest Purdue Agricultural Center Field Day

August 10, 2005 - 1:30 to 3:30 PM

1:30 to 1:45 – Welcome and introduction of Purdue Staff

1:45 to 3:00 – Tour of field experiments including:

- Muskmelon and watermelon variety trials
- Tomato nutrition
- Pesticide trials for pumpkin, muskmelon, watermelon, tomato
- Soybean Rust update
- Demonstration of the sticky trap sampling method for cucumber beetle
- Speed scouting for soybean aphid

3:00 to 3:30 – Questions and Answers

Address: 4369 N. Purdue Road, Vincennes, IN 47591. We are located North of Vincennes, just off Highway 41, on the west side of the highway.

If you have questions, please call the Southwest Purdue Agricultural Program office at (812) 886-0198.

Vegetable Crops Hotline
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