Vegetable Insects - Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu

**Melons.**
Continue to scout all melons for aphids, cucumber beetles, and spider mites. In comparison to last season, the number of fields needing a spider mite treatment has been low. However, we continue to find fields with economic levels of spider mites so be sure to carefully sample all fields. A treatment will be needed if you find 20-30% of the plants infested with 1-2 mites per leaf. If populations of mites have exploded and adult mites are the predominant life stage, Capture or Danitol should be used. If the population is a mixture of eggs, immature mites and lower levels of adult mites, Agri-Mek should be used at 8 oz/acre. A second miticide application may be needed in 3-7 days depending on the population level at treatment time. In the past, dimethoate has provided poor mite control; however, last season there were reports of good control. In recent years, Kelthane has provided fair to good mite control when used in the rotation to help avoid the development of resistance. If populations are heavy or numerous eggs are present at the time of treatment, at least 2-4 miticide applications will be needed.

**Peppers.**
In areas where corn borer trap catches are above 2 per night and pepper fruit is ½ inch in size or larger, fields should be sprayed on a 7-day schedule for corn borer control. Before peppers have fruit, a spray may still be needed to prevent corn borers from moving into the stems. As soon as fruit are present, you will also need to treat for pepper maggot. If you are using acephate (Orthene or Address), it will provide pepper maggot control. Otherwise, dimethoate is the best option for pepper maggot control.

**Potatoes.**
Continue to sample fields for Colorado potato beetle adults and larvae. Remember Actara or Provado should not be used in fields where Admire, Platinum or Tops MZ-Gaucho were used at planting to avoid the development of resistance. You will need to use Spintor, cryolite, or Avaunt plus PBO. We are starting to find threshold levels of green peach aphids in fields where Admire, Platinum or Tops MZ Gaucho were not used at planting. The threshold at this time is 4 aphids per leaf. Once we are 2 weeks from harvest, the threshold increases to 10 per leaf. Provado, Fulfill or Monitor will provide green peach aphid control.

**Snap Beans.**
Continue to scout for leafhopper and thrips activity. The thrips threshold is 5-6 per leaflet and the leafhopper threshold is 5 per sweep. If both insects are present, the threshold for each should be reduced by 1/3. Dimethoate, Lannate, Asana, Capture, or Warrior will provide control of both insect pests. If plants are approaching the bud stage, Orthene will control thrips, leafhoppers and corn borers. Once corn borer catches reach 2 per night, fresh market and processing snap beans in
the bud to pin stages should be sprayed for corn borer. Orthene or Address (acephate) should be used at the bud and pin stages on processing beans. After the pin stage, one to two sprays will be needed between the pin spray and harvest. Once pins are present on fresh market snap beans and trap catches are above 2 per night, a 7-10 day schedule should be maintained for corn borer control. Lannate, Asana, Capture, Warrior or Mustang are labeled. Acephate has a 14-day wait until harvest.

**Sweet Corn.**
If corn borer populations are well above threshold at the mid-whorl stage, multiple whorl sprays, a tassel spray and an early silk spray will be needed to provide corn borer control. In order to get good control of larvae feeding deep in the whorls, you will need to use at least 30 gallons of water per acre. The first silk sprays will be needed as soon as ear shanks are visible. Silk sprays are needed on a 3-day schedule in Sussex County and on a 3-4 day schedule in Kent County. Be sure to check our website (http://www.udel.edu/IPM/traps/latestblt.html) for the most recent moth catches in your area.

**Vegetable Crop Diseases – Bob Mulrooney**  
*Extension Plant Pathologist; bobmul@udel.edu*

**Pickling Cucumber Disease Control.**

**Foliage Diseases.**
Pickling cucumbers have good to excellent resistance to many foliage diseases such as powdery mildew, downy mildew, and anthracnose. The crop is so short that many diseases never get started before harvest which also helps. Angular leafspot, caused by bacteria, can be present when wet weather persists, but rarely needs to be controlled. If it does copper plus mancozeb is recommended. Avoid working in fields when wet if angular leafspot is present to keep it from spreading. Gummy stem blight is rarely a problem on pickles, but can be devastating on cantaloupes and watermelons. Since resistant strains of gummy stem blight occur in Delaware and Maryland, Quadris or Cabrio are not recommended especially in Sussex County. Chlorothananol (Bravo, Echo, Equus) or mancozeb are recommended for control if needed. For more information on strobilurin fungicides for cucurbits, see the previous issue of Weekly Crop Update http://www.rec.udel.edu/Update%2003/Issue%2013%202003.htm. Usually fungicides for leaf diseases are not needed, but the same is not true for fruit rot control.

**Cucumber Fruit Rots.**

**Phytophthora Fruit Rot Control on Pickling Cucumbers.**
Phytophthora fruit rot can be a devastating disease of pickles. The fungus is soilborne and the overwintering oospores can remain viable in the soil for long periods of time. Cultural practices that help control Phytophthora are (1) as long a rotation away from susceptible crops (tomatoes, peppers, eggplants, lima beans, cucurbits) as possible, (2) plant only well-drained fields, (3) use as wide a row spacing as possible to allow drying and reduce humidity. In Michigan, fungicides have been used successfully in combination with cultural controls. The fungicides that they have tested are Ridomil Gold/Bravo or Ridomil Gold Copper 2 lb/A, Acrobat and Gavel. Their experience has shown that applications should be made when fruit are present and can be as soon as several days after pollination. Growers should make at least two applications and maybe more depending on the field history, weather, and economics. If the Phytophthora population is not sensitive to Ridomil, full rates of Acrobat (6.4 oz/A) plus full rate of copper as well as Gavel plus copper also provides good control and is an alternative to Ridomil Gold Bravo or Ridomil Gold Copper. As far as we know, our Phytophthora population is still sensitive to Ridomil. Good coverage of the fruit is important with all the fungicides including Ridomil. Acrobat and Gavel are not systemic. Be sure to check labels for days to harvest. As a reminder, cull fruit...
should not be spread on production fields that get planted to cucurbits or other susceptible crops. If cull fruit need to be dumped, restrict the dumping to a single field that gets planted to corn, small grains, sorghum or other non-susceptible crop. If you have to plant a field with a history of Phytophthora fruit rot, a Ridomil Gold 4E treatment at planting would also be advised. Another disease management strategy is early harvest for fields within several days of harvest when thunderstorms are forecast or a good chance of heavy rain (more than an inch). It may mean harvesting less compared to possibly harvesting nothing. Something to think about.

**Belly Rot** caused by the soilborne fungus Rhizoctonia can also cause pickle growers problems. Cucumber fruit are infected on the underside and the fungus produces water-soaked, tan to brown lesions, which become sunken, cratered, irregular and dried as they enlarge. The fungus can infect over a wide temperature range with the optimum being 80°F. High humidity near the soil surface under dense foliage promotes infection. Fungicide control has been inconsistent over the years. Fungicide sprays of Quadris (11-15.4 fl. oz/A) at the 1-3 leaf stage and a second at vine tip-over or 10-14 later is labeled for belly rot control. Cabrio, another strobilurin fungicide like Quadris, is labeled for foliage disease control on cucurbits, but is not labeled for belly rot or Rhizoctonia control. The high rate of chlorothalonil use is no longer labeled. Rotate away from pickles for 3 years. Deep plowing will also help bury any fungus residing on the soil surface or in debris from a previous crop. Unfortunately I don't think a grower could expect to get much, if any control of belly rot from a Ridomil Gold/Bravo application for Phytophthora fruit rot.

**Cottonty leak** caused by Pythium is a troublesome disease as well. It flourishes when the weather is hot and humid and soil conditions are wet. Infection begins where the fruit touches the soil. Plant fields that drain well. Preventing and controlling Pythium fruit rot with fungicides is difficult. Apply Ridomil Gold or UltraFlourish in a 7 in. band after seeding. Leak can be a problem when pickles follow pickles.

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**Field Crops**

**Field Crop Insects** - Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu

**New Label.**
Dow AgroSciences recently received a federal label for the use of Intrepid 2E for control of European corn and true armyworm in Field and Sweet Corn. The use rate is 4-8 oz/acre.

**Alfalfa.**
We can still find numerous fields with high leafhopper populations with significant yellowing, and "hopper-burn" on the tips of leaves. Although early cutting can be a control option, it should only be used if a field can be cut within 3-5 days of finding an economic level.

**Field Corn.**
Corn borer larval infestations in the earliest planted non-Bt field corn are ranging between 30 and 100%. We are also finding larvae boring into the midribs of leaves. Although trap catches have not been very high this season, it appears that all the corn borers in the area are very attracted to this earliest planted corn. As a general guideline, control is suggested in dryland corn when 75-80% of the plants are infested with at least one larva per plant. In irrigated corn, the threshold is 50% infested plants. Remember, if you have planted YieldGard for rootworm it has no suppression or control of European corn borer. A pyrethroid, Lorsban, Intrepid or Penncap-M will provide control. At this time, most larvae are deep in the whorls so the best timing for control will be just as the tassels are emerging from the whorls. However, once you can find at least 1/3 of the larvae boring into the midribs of leaves or into the stalks, then controls will not be very effective.
Soybeans.

Continue to scout for grasshoppers and spider mites in seedling stage beans. Grasshoppers can be controlled with Asana, Dimethoate, Furadan, Lorsban or Warrior. Spider mites can be managed with Dimethoate, Lorsban or Parathion. With both pests, multiple applications may be needed. In addition to grasshoppers and spider mites, green cloverworm populations are starting to increase in soybeans. In recent years, losses have occurred from green cloverworm defoliation, especially on double-cropped soybeans. Small cloverworm larvae produce "window-pane" feeding holes in the leaves. As larvae increase in size, the damage will appear as large holes between the veins. In general, no controls are needed prebloom unless you find 15 larvae per foot of row and 30% defoliation. A pyrethroid or Lorsban will provide effective control.

Grain Marketing Highlights - Carl German, Extension Crops Marketing Specialist; clgerman@udel.edu

Possible Huge U.S. Crop Looms Over Market. The June 30th USDA Acreage and Stocks Report had little impact on influencing commodity prices this week. U.S. farmers intend to plant 79.066 million acres of corn, 73.653 million acres of soybeans, and 60.94 million acres of wheat. Soybean and wheat acres were reported just below the average trade estimates, while corn acres were reported to be 2.85 million acres larger than pre-report estimates. Corn and soybean acres were slightly higher than the March acreage estimates, while wheat acres were 757,000 acres less than the March report.

The June 1st stocks report was somewhat surprising for soybeans coming in at 602.33 million bushels as compared to the pre-report average trade estimate of 556 million bushels. Corn stocks reported at 2.985 billion bushels were just below the trade estimate of 3.013 billion bushels. Wheat stocks, also larger than pre-report estimates are placed at 491.72 million bushels. Last year's June Stocks report placed soybeans at 684 million bushels, corn at 3.594 billion bushels, and wheat at 772 million bushels. Therefore, we are well under the stocks levels reported for this time last year for all three commodities.

Summary Comments. For the time being, U.S. crop conditions remain the driving force behind new crop commodity prices. It is time to hold up on advancing sales for new crop corn and soybeans for several reasons. First, prices have dropped substantially this past week, largely attributed to U.S. crop conditions. Second, even though a large percentage of the U.S. corn and soybean crops are reported in the good to excellent category, a sizeable portion of the corn and soybean crops reported in that range were planted late. Late crops will need time to fully develop and mature. Any adverse weather occurring over the next six weeks will rally these markets, giving some opportunity to advance forward pricing or harvest delivered sales. Hot/dry weather could make for an extremely volatile market.

A Side Note: The job of marketing grain is seldom easy and this year's crop development on the Eastern Shore will make grain marketing even more difficult for Delmarva farmers. The reason being that sales opportunities for corn and soybeans that were available earlier in the spring, that savvy marketers would have used to advance forward priced or harvest delivered sales, could not be made due to the extreme delay in getting crops planted. Those missed sales opportunities amounted to what could have been advancing sales on 30% of the '03 corn crop and 40% of the '03 soybean crop. With that in mind, we will attempt to make the best sales decisions possible from here on.
UPCOMING EVENTS:

Farm and Home Field Day Set for August 13

Take a day to enjoy summertime in the country at the University of Delaware's Farm and Home Field Day, Wednesday, August 13. Held from 8:30 a.m. until 1:30 p.m. on the grounds of the Research and Education Center, on 16684 County Seat Highway (U.S. Rt. 9) west of Georgetown, this annual event offers many fun-filled, educational activities, tours, interactive exhibits and demonstrations for homeowners and farmers alike.

Field tours by wagon will highlight agronomic and vegetable crops. Farmers can consult with Extension specialists about the latest research and pest control strategies.

Visitors to Field Day can drop by the Master Gardener demonstration garden to view the wide array of plantings. What began several years ago as a yearly one-day display for Farm and Home Field Day has blossomed into a large permanent exhibit for plants, including herbs, shade-loving plants, annual flowers, perennial ground covers, decorative grasses, a problem garden, a bog garden, a children’s garden, and a container garden.

Children, parents, and caregivers will learn about keeping their young children safe during the summer months. This portion of the program will include many interactive exhibits and demonstrations plus costumed characters, children’s aerobics, face painting, finger printing, a petting zoo, and car seat check. Local 4-H clubs will set up a petting zoo and food booths. Consumer, environmental and commodity groups will staff informational booths in the Grove. Carriage and pony rides will round out the morning’s activities.

Farm and Home Field Day is free and open to the public, and plenty of free parking is available. Tickets for a traditional barbecued chicken luncheon at 12 noon can be purchased at the registration table for $6.00.

For more information, call Mark Isaacs at 302-856-1997 or Jay W indso r at 302-856-7303.

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Weather Summary

http://www.rec.udel.edu/TopLevel/Weather.htm

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<th>Rainfall:</th>
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<tr>
<td>0.02 inches: June 28</td>
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<td>0.86 inches: July 2</td>
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<th>Air Temperature:</th>
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<tr>
<td>Highs Ranged from 92°F on June 27 to 80°F on June 28.</td>
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<tr>
<td>Lows Ranged from 71°F on June 30 to 63°F on July 2.</td>
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<th>Soil Temperature:</th>
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<td>80°F average for the week.</td>
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<td>(Soil temperature taken at a 2 inch depth, under sod)</td>
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Web Address for the U of D Research & Education Center: http://www.rec.udel.edu

Compiled and Edited By:
Tracy Wootten
Sussex County Extension Educator - Horticulture

Best Wishes for a Safe and Happy July 4th!