Vegetables

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

**Cabbage.**
Be sure to sample fall planted fields for diamondback and cabbage looper larvae. We can find both insects in recently planted fields. If both species are present, Avaunt, a Bt, Proclaim or Spintor will provide control. If cabbage looper is the predominant species, a pyrethroid, Intrepid, or Confirm will also provide control.

**Lima Beans.**
Continue to scout for lygus bugs and stinkbugs as soon as pin pods are present. Treatment should be considered if you find 15 adults and/or nymphs per 50 sweeps. Since earworm can be found in lima bean fields, you should also start scouting fields with pin pods for corn earworm. A treatment will be needed if you find one corn earworm larva per 6 ft of row from late flat pod stage until harvest. Capture, Lannate, Mustang, or Warrior will provide earworm control.

**Melons.**
Continue to scout all melons for aphids, cucumber beetles, and spider mites. Be sure to watch for bees foraging in the area and avoid insecticide applications on blooming crops.

**Peppers.**
Be sure to maintain a 5-7 day spray schedule for corn borer control, corn earworm and fall armyworm control. Continue to scout for beet armyworm, especially if fields are weedy. Avaunt, Intrepid and Spintor will provide the best beet armyworm control.

**Snap Beans.**
At this time, all fresh market and processing snap beans will need to be sprayed for corn borer from the bud stage through harvest. You will also need to consider corn earworm when making your chemical selection. Remember, Orthene provides poor corn earworm control. So if Orthene is used at the pin stage, a pyrethroid should be added to the mix. Since moth catches can change quickly, be sure to check our website for the most recent trap catches and information on how to use this information to make a treatment decision in processing snap beans. [http://www.udel.edu/IPM/traps/latestblt.html](http://www.udel.edu/IPM/traps/latestblt.html) and [http://www.udel.edu/IPM/thresh/snapbeanecbtshresh.html](http://www.udel.edu/IPM/thresh/snapbeanecbtshresh.html).

**Spinach.**
Since webworm and beet armyworm moths are both actively laying eggs, be sure to watch for both worm pests as soon as plants emerge. Controls should be applied when worms are small and before they have moved deep into the hearts of the plants. Also, remember that both insects can produce webbing on the plants. Since beet armyworms are more difficult to control, chemical selection is important. Confirm, Intrepid, or Spintor will be needed for beet armyworm control. If webworms are the predominant species, permethrin, Confirm (8 oz/acre), or Intrepid (8-10 oz) should be used.
Generally, at least 2 applications are needed to achieve control of webworms and beet armyworm.

**Sweet Corn.**

All fresh market silking sweet corn should be sprayed on a 2-3 day schedule. Since corn earworm populations have increased quickly in some locations, be sure to check trap catches frequently. You can check trap catches and treatment decision guidelines on our website (http://www.udel.edu/IPM/traps/latestblt.html and http://www.udel.edu/IPM/thresh/silkspraythresh.html).

**Vegetable Crop Diseases - Bob Mulrooney, Extension Plant Pathologist, bobmul@udel.edu**

**Lima Beans.**

We have yet to see downy mildew in lima beans. It is important to spray for downy mildew beginning at flowering. The weather pattern continues to be very favorable for infection. We have seen two confirmed cases of lima bean pod rot caused by *Phytophthora capsici*. There is nothing labeled specifically for control of this soil born fungus. Copper sprays applied preventatively for downy mildew have provided good control of downy mildew, but have not provided adequate control of pod rot in the past. In general, the infected areas tend to be the low areas and not the entire field. Infected pods will drop and reduce yields.

**Downy Mildew on Cucurbits.**

Another fungicide is now available for downy mildew on cucurbits. Previcur Flex from Bayer now has a cucurbit label at 1.2 pints/A. It is an excellent fungicide for late blight in potatoes especially when tank mixed with Bravo. It needs to be tank mixed with chlorothalonil (Bravo, all cucurbits), manebl (pumpkins and winter squash), or mancozeb (other cucurbits) for use on cucurbits. To access the Previcur Flex fungicide label in pdf format http://www.rec.udel.edu/update04/S%20Previcur%20Flex%207-30-04.pdf

**Late Blight Advisory.**

**Disease Severity Value (DSV) Accumulation as of August 11, 2004 is as follows:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Daily DSV</th>
<th>Total DSV</th>
<th>Spray Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/26-30</td>
<td>0</td>
<td>87</td>
<td>10-day</td>
</tr>
<tr>
<td>7/1-7/11</td>
<td>7</td>
<td>94</td>
<td>10-day</td>
</tr>
<tr>
<td>7/12</td>
<td>5</td>
<td>99</td>
<td>7-day</td>
</tr>
<tr>
<td>7/13</td>
<td>2</td>
<td>101</td>
<td>7-day</td>
</tr>
<tr>
<td>7/14</td>
<td>2</td>
<td>103</td>
<td>7-day</td>
</tr>
<tr>
<td>7/17</td>
<td>10</td>
<td>113</td>
<td>5-day</td>
</tr>
<tr>
<td>7/19</td>
<td>1</td>
<td>114</td>
<td>5-day</td>
</tr>
<tr>
<td>7/22</td>
<td>2</td>
<td>116</td>
<td>7-day</td>
</tr>
<tr>
<td>7/23</td>
<td>2</td>
<td>118</td>
<td>7-day</td>
</tr>
<tr>
<td>7/24</td>
<td>9</td>
<td>127</td>
<td>7-day</td>
</tr>
<tr>
<td>7/26</td>
<td>5</td>
<td>132</td>
<td>7-day</td>
</tr>
<tr>
<td>7/27</td>
<td>11</td>
<td>143</td>
<td>5-day</td>
</tr>
<tr>
<td>7/29</td>
<td>2</td>
<td>145</td>
<td>7-day</td>
</tr>
<tr>
<td>7/30</td>
<td>10</td>
<td>155</td>
<td>7-day</td>
</tr>
<tr>
<td>8/2</td>
<td>4</td>
<td>159</td>
<td>7-day</td>
</tr>
</tbody>
</table>
Application rates for protectant fungicides (Dithane, Bravo, etc.) should be at the high end of the rate with the amount of foliage present. For specific fungicide recommendations, see pages F132-33, 2004 Delaware Commercial Vegetable Production Recommendations Book. EB 137.

No late blight has been seen in DE-MD-NJ area on potatoes.

Note: Late blight has been confirmed on tomatoes in Burlington and Sussex counties in NJ and is present in southeast PA on tomato as well. Growers with late potatoes and those that may have tomatoes nearby should continue to spray and scout for symptoms.

**Field Crops**

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

**Soybeans.**
Continue to scout fields for soybean aphids. Although populations have not reached threshold levels we are starting to find them on stems as well as leaves. You will need to look at the entire plant when sampling for aphids. The treatment threshold is 250 per plant up to growth stage R-3/R-4 with 80% of the plants at that level. After R4, the threshold increases to 1000-1500 aphids per plant. Numerous products are now labeled for soybean aphid including Asana, Baythroid (suppression only), Mustang MAX, Warrior, and Lorsban. Dimethoate has not provided adequate control and Furadan 4F only has a 2ee label for the Midwestern states.

We can also find economic levels of defoliators in later planted double crop fields. In most cases, the predominant insects are grasshoppers and green cloverworms. Before bloom, the defoliation threshold is 30% and once fields begin to flower the threshold drops to 15% defoliation. You should also watch for diseased cloverworms which can help to crash populations.

We are also starting to find a few corn earworms in double cropped fields; however, populations are extremely low at this time. Although full season fields should generally escape damage, it will be important to check those fields at least once, especially if they were treated for spider mites. As in most years, double crop fields will be most susceptible to attack. A treatment should be considered if you find 3 per 25 sweeps in narrow fields and 5 per 25 sweeps in wide row fields (20 inches or greater).

The following materials will provide corn earworm control in soybeans: Ambush, Baythroid, Asana, Mustang MAX, Pounce, Warrior (all pyrethroids), Larvin, Lorsban, or Steward. Larvin and Steward act by ingestion on both small and large larvae. Remember that if you are using a pyrethroid, the primary mode of action on large larvae will be ingestion. Earwors will need to feed to cause death so you will not see much activity from the contact action. Once they ingest the product, they immediately stop feeding. Therefore, fields should not be evaluated for control until 4 days after application. **Small larvae are generally killed by contact as well as ingestion.** It is important that you do not look at fields 1-2 days after spraying and assume control failure if large worms are present. This could result in unnecessary re-sprays. We are also finding a few beet armyworms in fields. If the predominant pest is beet armyworm, the pyrethroids will not provide control. Steward would be the preferred material. However, in 2002 grower demonstration trials, Lorsban also provided good control.
Field Crop Diseases - Bob Mulrooney, Extension Plant Pathologist, bobmul@udel.edu

Corn.
I have seen an increase in the number of fields with southern corn leaf blight in Sussex county. The weather pattern has been very favorable for leaf blights in general.

Southern corn leaf blight. Ends of lesions are not rectangular like gray leafspot and centers are tan not gray.

Soybeans.
Two samples were received that look like Sudden Death Syndrome (SDS). This is a disease that was first seen on Delmarva back in 2000. Cooler and wetter conditions than normal are thought to favor it. One of the two fields is the same as in 2000. The fungus is soilborne and can persist for long periods of time. The principal symptom is the interveinal chlorosis at first which then results in interveinal necrosis and brown leaves that eventually drop leaving the petioles attached to the stems. The fungus produces a rot of the root cortex and a toxin that causes the leaf symptoms. Depending on how early symptoms appear determines the effect on yield. The earlier to flowering and early pod, fill the more the damage to the crop. If symptoms develop after the beans fill out the pods there is effect on yield. Control of SDS is through the planting of resistant varieties. Be on the lookout for soybeans with symptoms like the following picture. When diagnosing SDS, do not rely entirely on foliar symptoms. Remember that the foliar symptoms of SDS are similar to those of brown stem rot (not very common here) and stem canker. Longitudinally split the stem of plants exhibiting foliar symptoms and look for stem discoloration. Plants with SDS may have some uniform vascular discoloration (reddish to brown), but the pith remains white. Plants with brown stem rot have brown discoloration of the vascular tissue and the central pith. Leaf symptoms of the stem canker disease can also be confused with SDS; however, soybeans with stem canker have cankers on the lower stem, whereas plants with SDS do not have cankers. The leaves remain attached after dying on plants that have stem canker; but, on soybeans with SDS, the leaves drop off the soybean plant, often dropping from the top of the plant first and leaving the petiole attached to the stem. There are two other diseases that can produce symptoms like this, so whole plants are needed for a good diagnosis.

Sudden Death Syndrome (SDS) on leaves. Note the interveinal necrosis.

Grain Marketing Highlights - Carl German, Extension Crops Marketing Specialist; clgerman@udel.edu
World & U.S. Supply and Demand Highlights.
The August crop report results are in. The report is being termed neutral to slightly bullish for U.S. corn due to ending stocks coming in on the low side of pre-report estimates; bullish for U.S. soybeans due to lower production for the '04 crop and lower ending stocks for the '04/'05 marketing year; and bearish for wheat with both higher production and higher ending stocks.

Corn Analysis.
A quick look at the big five corn producing states this year ranks Iowa first at 1.976 billion bushels, Illinois a close second at 1.940 billion bushels, Nebraska third at 1.225 billion bushels, Minnesota fourth at 1.072 billion bushels, and Indiana fifth at 827 million bushels. Delaware is projected to produce 19.53 million bushels on 155,000 acres harvested.

Total U.S. corn production for the '04/'05 marketing year is now forecast at a record 10.923 billion bushels with ending stocks estimated at 1.132 billion bushels, only 218 million bushels above the carry in from the '03/'04 marketing year at 914 million bushels and 45 million bushels more than the carry over from '02/'03 marketing year. The '04 U.S. crop is forecast to yield 148.9 bushels per acre on average to be harvested from 73.4 million acres. The U.S. is projected to use 10.720 billion bushels of corn this marketing year, about 420 million bushels more than last year. The crop size at the current estimate is 288 million bushels greater than last month's estimate and 809 million bushels larger than last year.

Ending stocks for world coarse grains are expected to rise to 92.70 million metric tons, an increase of 7.54 million metric tons from last month primarily due to production increases in the U.S. and China. At this projected level, world ending stocks for coarse grains remain below last years carry in of 99.04 million metric tons and the '02/'03 carry out of 134.26 million metric tons.

The season average farm price for '04/'05 U.S. corn was lowered 25 cents per bushel on each end of the range and is now estimated at $2.05 to $2.45 per bushel.

Soybean Analysis.
Total U.S. soybean production for the '04 crop is now forecast at 2.877 billion bushels, lower than the low end of the pre-report trade estimates. Beginning stocks (carry over), from the '03/'04 marketing year, were left unchanged at 105 million bushels while the production estimate was lowered 63 million bushels from the July estimate. Even with crushing use estimates lowered by 20 million bushels; and the export estimate lowered another 20 million bushels, the ending stocks estimate for the '04/'05 marketing year was reduced to 190 million bushels representing a 20 million bushel decrease in the ending stocks estimate from July. Ending stocks for U.S. soybean oil and meal were left unchanged from the July estimates.

The season average farm price for '04/'05 U.S. soybeans was lowered by 30 cents on each end of the price range and is now placed at $5.40 to $6.40 per bushel. This may seem surprising; however, one needs only to be reminded of the huge production increase that is projected for the Southern Hemisphere '05 soybean crop to account for the reduction in the price range.

Wheat Analysis.
Total U.S. wheat production is now placed at 2.123 billion bushels, 64 million bushels more than the July estimate and above the high end of pre-report trade estimates. Ending stocks for the '04/'05 U.S. wheat crop are now projected at 578 million bushels, as compared to 494 million bushels in the July estimate. The wheat stocks level came in well above the high end of pre-report trade guesses.

The season average farm price for U.S. wheat was lowered and is now placed at $2.95 to $3.55 per bushel, 15 cents lower on the bottom end of the range and 25 cents lower on the top end of the range from the July report.

Market Strategy.
This report is likely to produce a rally in the soybean trading pits, giving some producers an opportunity to catch up on '04 forward contracting needs if not already 50% completed. Depending upon crop development, some producers are going to want to advance soybean sales above the 50% level for the '04 crop. This rally may also present an opportunity to forward price some '05 soybean production.
Once trader focus turns away from the fact that the ’04 U.S. corn production number was larger than the 10.7 billion bushel average pre-report estimates, we are likely to see corn prices recovering somewhat from becoming oversold. Even though this corn crop was projected to be larger than the July report, ending stock levels are only 218 million bushels greater than beginning (carry in) stocks. With 50% or better of new crop production previously contracted and December futures nearing the loan rate, it appears advisable to place a hold on advancing new crop corn sales.

**UPCOMING EVENTS:**

**ON THE ROAD AGAIN...  
AUGUST 23-24, 2004**

**WORKING TOUR OF PENNSYLVANIA FARMS**

- **AGRI-TOURISM**  
- **DIRECT MARKETING**  
- **VALUE-ADDED**

**ITINERARY**

**August 23, 2004**

Linvilla Orchards, Media PA  
Funks Farm Market & Garden Center, Millersville  
Brown’s Orchard & Farm Market, Loganville, PA  
Maple Lawn Farms, New Park, PA  
Hickory Bridge Farms, Orrtanna, PA.  
Hotel Liberty

**August 24, 2004**

Lady Moon Farms/Trickling Springs Creamery  
Chambersburg PA  
Willow Pond Farm, Fairfield, PA

Adams County Winery, Orrtanna, PA  
Quaker Valley Orchards, Biglerville, PA

We are inviting all of you to join us. Transportation, lodging, meals taxes and gratuities are included. The cost is $ 80.00 per person double occupancy.

We will leave Dover at 7 AM on MONDAY 8/23, return TUESDAY night at 9:30 PM

PHONE **302-730-4000** by August 19th if you will be going on this tour, or email Gordon Johnson (gcjohn@udel.edu). For more information contact our office at 302-730-4000.

Tour sponsored by the University of Delaware Cooperative Extension, The Delaware Department of Agriculture, and The Northeast Center for Risk Management Education.

**Wicomico Farm and Home Show**

**AUGUST 19-21 2004**

Located at the Wicomico Equestrian Center, Winterplace Park, Rt. 50 & Hobbs Rd., Salisbury, MD 21801

Anyone wishing to enter into the Tractor Show and/or Classic Car show may go directly to the website.

[www.wicomicofarmandhomeshow.com](http://www.wicomicofarmandhomeshow.com)

For more information, contact Susan Lewis at 410-749-7151(ph), 410-742-
**PROGRAM**

**WEDNESDAY - AUGUST 18th**
4:00 pm.-9:00 pm. ......................Entries Received

**THURSDAY - AUGUST 19th**
9:00 am. ..................................Judging of Entries
4:00 pm. ..............................SHOW OPENS
5:00 pm. .............................Livestock Show
5:00 - 7:00 pm.............CAT COUNTRY ( KEYWORD )
6:00 pm. ..............................Livestock Show
7:30 pm. ..............................Cake Auction

**FRIDAY - AUGUST 20th**
12 NOON...............................SHOW OPENS
12:30 pm. ....................Children's activities & games
1:00 pm. ............................Compact Tractor Contest
5:00 pm. ............................Livestock Show
5:00 - 7:00 ....................MAX Radio Station
6:30 pm. ............................Livestock Show
7:00 pm. ............................Cruise-In
7:30 - 9:00 pm. .............Karaoke by DAWN
9:00 pm. .............................SHOW CLOSES

**SATURDAY - AUGUST 21st**
9:30 am. .............................SHOW OPENS
10:00 am. ............................Livestock Show
10:00 am.- 2:00 pm ............Tractor & Car Show
10:30 am. .................. TRAINING WITH TRUST
                       KENNY HARLOW (horse clinician and trainer)
11:00 am. ............................Livestock Show
11:00 am.-1:00 pm.............Karaoke by DAWN
1-4 pm..................KENNY HARLOW will work with horses
1:30 pm. ......................4H Fashion Show
2:00 pm. .......................Pedal Tractor Contest
2:00-5:00 pm. ........................Steel Drum Band
4:00 - 5:00 pm. ..Being A Better Partner for Your Horse
5:00 pm. .............................Benefit Auction

**Auctioneer: Pete Richardson**

**Auctioneer: Doug Marshall**
7:30 pm.................................Awards Presentation
8:30 pm. ..............................SHOW CLOSES

There will be a dunking booth on Friday & Saturday.

*For more information on 4-H activities, call the Wicomico County Extension Service 410-749-6141

---

**Weather Summary**

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

**Week of August 6 to August 12, 2004**

**Rainfall:**
None.

**Readings taken for the previous 24 hours at 8 a.m.**

**Air Temperature:**
Highs Ranged from 84°F on August 9, 10, 11, & 12 to 73 °F on August 6 & 7.
Lows Ranged from 70°F on August 12 to 51°F on August 7 & 8.

**Soil Temperature:**
76 °F average.
(Soil temperature taken at a 2 inch depth, under sod)

**Web Address for the U of D Research & Education Center:**
http://www.rec.udel.edu

**Compiled and Edited By:**
Tracy Wootten
Sussex County Extension Agent - Horticulture
University of Delaware

---

Cooperative Extension Education in Agriculture and Home Economics, University of Delaware, Delaware State University and the United States Department of Agriculture cooperating. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Delaware Cooperative Extension, University of Delaware. It is the policy of the Delaware Cooperative Extension
System that no person shall be subjected to discrimination on the
grounds of race, color, sex, disability, age or national origin.