Vegetables

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

Melons.
Damage from seed corn maggot is starting to show up in cantaloupes. Even though the weather has turned hot and dry, we still see flies laying eggs, especially where manure has been used or a green manure has been recently plowed under. A maggot control should be used in all melon fields until the end of May.

Potatoes.
The first Colorado potato beetle adults have been found in the earliest emerged fields. With the current warmer weather, you can expect to see the first eggs by next week. No adult treatments will be needed unless you find 25 beetles per 50 plants and 20% leaf defoliation. Spintor or Provado will provide control of CPB adults and larvae.

Sweet Corn.
Economic levels of cutworms have been found in the earliest planted fields in Kent and Sussex Counties. Be sure to watch all fields for cutworm activity, especially where you plowed under a heavy growth of chickweed or a cover crop before planting. A rescue treatment should be applied on 1-2 leaf-stage corn when you find 10% leaf feeding or 3% cut plants. In 3-4 leaf stage corn, the threshold is 5% cut plants. A pyrethroid will provide effective control.

Command 3ME Receives Full Label for Several Vegetables – Ed Kee, Extension Vegetable Crops Specialist; kee@udel.edu

Command 3ME can be used as a soil applied treatment prior to weed emergence in green beans, cabbage, cucumbers, peas, peppers, squash, and sweet potatoes. Follow the label for use instructions, rates, and rotational crop restrictions.

Vegetable Planting Progress and Intentions – Ed Kee, Extension Vegetable Crops Specialist; kee@udel.edu

Pea planting is about 70% finished. Processing sweet corn is 20% to 35% complete, depending on the company and their planting schedule. Approximately 15,000 acres of processing sweet corn will be contracted on Delmarva this year.

Spring planting of spinach is nearly complete, and harvest of overwintered spinach is 50% complete. Spring spinach will be harvested in June.

Pickling cucumber planting is not expected to begin until May 10. Contracted intentions are up slightly from last year. Delmarva pickling...
cucumber producers grow about 900,000 bushels on approximately 4,500 to 5,000 acres. A quick survey of processors indicates 13,000 acres of lima beans will be planted this year.

Watermelon transplanting has begun, as growers express concern over cool nights. The transplanting completed so far has been on plastic mulch with rye strips, somewhat lessening the potential damage from frost.

**Grass Herbicides For Sweet Corn** – Ed Kee, *Extension Vegetable Crops Specialist; kee@udel.edu*

We have had several questions from sweet corn processor field men about the risk of injury from Prowl for use on sweet corn. Prowl is labeled, but injury is a possibility on the early plantings if temperatures are cool. Fortunately, much sweet corn acreage planted of late experienced relatively warm conditions. The other compounding problem is related to depth of planting. Planting at 1.5 to 2 inches deep helps avoid injury, but sweet corn comes out of the ground more evenly and quickly if planted at 1 inch. An even stand is a big part of obtaining good yield and grade at harvest, especially with mechanical harvest of processing types. In addition, the seed trench must be covered to avoid direct applications on the seed.

Prowl does offer weed control advantages if a triazine resistant pigweed or lambsquarter situation exists. However, the other choices of Dual II Magnum (metolachlor) or MicroTech or Partner (alachlor) also provide excellent grass control. Dual also provides nutsedge control.

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

**Section 18 Granted for Acrobat 50WP Fungicide on Cucurbits.** Acrobat 50WP is manufactured by BASF. This fungicide will help manage Phytophthora blight caused by *Phytophthora capsici*. Recent research work done in various areas of the country has shown that it can be effective in reducing Phytophthora blight on cucurbits including cantaloupes, cucumbers, squash (summer, winter), pumpkins, and watermelons. Acrobat will provide control of water molds only and needs to be tank mixed with another protectant fungicide such as chlorothalonil (Bravo) or mancozeb (Dithane). Because it has a unique mode of action, it must be mixed with a tank-mix partner. A copy of the label can be found at: [http://www.rec.udel.edu/Update01/Updatepdf.htm](http://www.rec.udel.edu/Update01/Updatepdf.htm) or contact your County Ag Agent for a copy. Thanks to the DDA and Grier Stayton and the EPA. This was about the fastest Section 18 request granting ever. Timing must have been very good.

Acrobat is not a magic bullet for control of Phytophthora blight. It is meant to be part of an integrated control program as mentioned in the April 13 Crop Update. The following bears to be repeated. The best control is to grow the plants on beds, if practical, to get them out of the water and to rotate for long periods of time (3 years or more) away from susceptible crops. For vegetable growers this is difficult because many crops are susceptible and irrigation availability limits rotation intervals. But a combination of rotation and other horticultural practices combined with fungicides may provide some relief. Fungicides alone have not provided a solution as results from New Jersey on Phytophthora blight on peppers has shown. What drives this disease is water. Choosing well-drained fields, avoiding planting wet areas, and planting on high beds combined with fungicides that are labeled for the crop, have provided a measure of control.

**Snap beans.**

Apply Ridomil Gold 4E in a 6 in. band over the row at planting to control damping-off caused by *Pythium*. If *Pythium and Rhizoctonia* are a problem apply Ridomil PC 11G at planting.
Spinach.
If white rust is present, apply Quadris 2F as a foliar spray before harvest. Remember that Quadris can only be applied twice per crop. Apply copper (Champ DF or Kocide) after harvest, and Quadris before the next harvest if white rust is still present.

Field Crops

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

Alfalfa.
Economic levels of weevils can be found in many fields throughout the state. Early cutting should be used only if fields are approaching full bud and you can cut the field in 3-4 days. If you cannot cut for 7 days, a treatment should be applied when the economic threshold level is reached: 12 inch alfalfa - 1 per stem; 15 inch - 1.5 per stem; 18 inches or taller - 2.5 per stem. If you do not treat and economic levels are found before cutting, be sure to check within a week of cutting for larvae feeding on the new regrowth. A treatment will be needed if you find 2 or more larvae per crown.

Field Corn.
Be sure to check fields for cutworms from the spike to 5 leaf stages. Variegated, dingy and black cutworm larvae are now active and leaf feeding can be found in the earliest planted fields. You should watch for early signs of leaf feeding which can appear as small pinholes when larvae are small. This damage often provides an indication of where you will see cut plants in the next week. A rescue treatment should be applied on 1-2 leaf-stage corn when you find 10% leaf feeding or 3% cut plants. In 3-4 leaf stage corn, the threshold increases to 5% cut plants. Since we have gone from cool and wet to hot and dry, remember rescue treatments are often less effective when soil conditions are dry. In many cases, we still have adequate moisture below the surface and rescue treatments will still be effective. However, if soil conditions are dry, larvae can feed underground, causing plants to appear wilted instead of cut-off at the soil surface. If cutworms are feeding below the soil surface, control can be improved if: 1.) insecticides are applied in at least 20 gallons of water per acre and directed to the base of the plants, 2.) treatments are applied as late as possible in the evening, and 3.) insecticides are cultivated into the soil when practical. A pyrethroid will provide effective control.

Wheat.
We are starting to see the first cereal leaf beetle larvae in wheat in Sussex County. Populations still remain at low levels. A treatment will be needed if you find 25 eggs and/or small larvae per 100 tillers or 0.5 larvae per stem.

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

U.S. Corn Planting Progress Even with 5 Year Average
According to USDA’s April 30th Crop Progress Report, U.S. farmers have caught up with the five year average with 28% of the nation's corn crop reported to be in the ground. The three I's (Illinois, Indiana, and Iowa) reported a mixed bag with Illinois coming in as the leader at 51% completed, well above the average. Farmer's in Indiana are reported to be well ahead of both last year's progress and the average, at 40% completed. In Iowa, which is typically the nation's largest producing corn state, corn planting is running behind both last year's pace and the five-year average, reported at only 15% complete. Recent rains, believed to be heaviest in the western and northern tier of the Corn Belt, may slow the planting pace.

USDA’s Weekly Export Report Slightly Supportive for Corn
U.S. corn exports were reported to be well above
expectations for the week ended April 27th at 1,267,400 metric tons. Pre report estimates placed corn exports at 400,000 to 650,000 metric tons. Japan and South Korea were key buyers. Soybean exports came in near the high end of expectations at 294,100 metric tons. U.S. wheat exports, at 215,700 metric tons, were near the low end of expectations.

**General Comments**

With U.S. commodity prices stuck in a very narrow trading range, there are a few factors that continue making the case for waiting to see what happens before advancing new crop corn, soybean, and wheat sales. Today marks the third and final day of the Kansas wheat tour. Kansas is the largest wheat producing state in the nation and is currently expected to produce a wheat crop, which is approximately 20 to 30% less than normal. This may bode well for wheat prices, however, one has to consider that most of this news has been factored into wheat prices. Wet weather is likely to delay corn plantings in the western and northern Corn Belt, yet that one is still too early to call. Being only May 3rd, there is still time to get the western and northern portions of the Corn Belt dried out and the crop planted. New crop commodity prices are currently $2.27 Dec. corn, $4.32 Nov. soybeans, and $2.78 July wheat.

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

**Wheat.**

Disease pressure continues to be low due to the dry weather and low humidity. Some **powdery mildew** continues to be present. Scout your fields and try to hold off spraying if necessary until head emergence.

**Wheat spindle streak mosaic virus** was identified and confirmed on ‘Pocahontas’ wheat last week. Large areas of the field were showing the typical yellow dashes and streaks in the older leaves especially. As mentioned last week, yield losses tend to be minimal or non-existent for us. This virus is soilborne and vectored by a fungus. Planting resistant varieties on infested fields is the best and only control.

**Caution When Using 2,4-D** - Mark VanGessel, Extension Weed Specialist; mjv@udel.edu

Be cautious when using 2,4-D this year. We have had hot days earlier than normal and temperatures are reaching the levels where 2,4-D has a greater chance of volatilizing and moving off-target to sensitive crops. This may require some changes in your burn-down program.

**Dry Weather and Soil-Applied Herbicides** - Mark VanGessel, Extension Weed Specialist; mjv@udel.edu

With this dry weather, you may be getting questions about what to do for herbicide selection.

If the field is irrigated, then by all means turn the pivot it on and irrigate the herbicide in. A minimum of one inch of water should be used. If it is conventional till, then using a field cultivator to work it in is a good option. If the choice is irrigate or field cultivate, I would select the irrigation because herbicides tend to perform better when sprayed on the soil surface and then irrigated in.

No till is more challenging, one option you may want to consider is using Princep with your burndown and then use an early postemergence treatment (when corn has 1 to 2 collars) such as Basis Gold or one of the herbicide-resistant corn hybrids (Roundup Ready, Liberty Link, Clearfield). The Princep will help with crabgrass control (something Basis Gold is weak on). It will not "kick in" until it gets rain, but any crabgrass
that germinates after the rain should be controlled. The Basis Gold will not need water to be activated and if you plan on spraying early like this, the weeds should be small and effectively controlled. If you have heavy weed pressure or lots of large seeded weeds like morningglory, you may want to add an additional 0.25 lbs/A of atrazine (or 8 fluid oz of 4L). Atrazine will provide residual control as will the rimsulfuron (Matrix) for most grasses. I would also include 2-4 oz of Banvel, depending on the weed size. Remember, you cannot use Counter insecticide if you plan on using Basis Gold. Finally, I would not include nitrogen with the Basis Gold only NIS, since the corn will be small and you do not want to risk any injury. I have not had much luck with getting good control with Bicep or Harness Xtra or any other soil-applied herbicide when applied at spiking or later.

Using a soil-applied herbicide with no rainfall will suppress some weeds but control will not be acceptable.

Testing For Endophyte in Tall Fescue Pastures - Richard W. Taylor, Extension Agronomist; rtaylor@udel.edu

This spring a number of folks have had questions concerning fescue toxicosis or endophyte-infested tall fescue. Most livestock grazing endophyte-infested tall fescue or ryegrass pastures can develop symptoms linked to fescue toxicosis or what one time was called “summer slump”. Broodmares can have special problems foaling when they have been grazing pastures infested with the endophyte. The endophyte is a specific fungus (Neotyphodium coenophialum) that lives and grows inside the tissues of specific grass plants although usually it is most often associated with tall fescue.

Can someone test for the presence of the fungus in a pasture or in seed that might be used to plant a pasture? Yes, there are at least two laboratories that I know of that test for endophyte. The first lab is the Fescue Diagnostic Laboratory, 209 Life Science Building, Auburn University, AL 36849-5409 and their web site is: www.ag.auburn.edu/dept/ent/services/fescue.htm This lab conducts a staining test for plants or seeds with an out-of-state cost of $30.00 per sample. It also conducts a growout test for seeds for $35.00 per sample.

The second laboratory is the Seed Laboratory, Division of Regulatory Services, 103 Regulatory Services Bldg., University of Kentucky, Lexington, KY 40546 and their web site is: www.ca.uky.edu/agc/pubs/ppa/ppa30/ppa30.htm This laboratory currently does not accept samples from out-of-state clients but do offer advice on collecting samples, sample size with relation to field size, and other useful information. You may want to check with them periodically to see if they have changed their policy with respect to out-of-state samples.

When should you sample? Now is an ideal time to sample. The tall fescue should have been actively growing for a month prior to sampling so mid-April through mid-June and then in late summer or early fall after the rains begin and the fescue begins growing.

For information on sample number, sampling procedures, and shipping, you should check out the web site for the lab that you plan to use.

I’ll end with a few short comments on what to do if the endophyte is present in sufficient concentration to be a problem. For broodmares, remove them from the infested pasture and consider total renovation of the pasture with either a species that is not subject to infestation (such as orchardgrass) or with an endophyte-free tall fescue variety. Keep in mind that the endophyte-free fescues do not tolerate stress as well as infested tall fescue and often yield less and have shorter stand life than infested tall fescue varieties. For other livestock, you can try to dilute the effect of the endophyte by seeding in other species,
especially legumes such as red and white clover and alfalfa. You also can supplement pasturage with hay or grain to reduce the amount of fescue consumed to less than 50 percent of the animal’s diet.

**UPCOMING MEETINGS:**

**Strawberry Twilight Meeting**  
Thursday, May 17, 2001  
Wye Research & Education Center  
Queenstown, Maryland  
6:00 p.m. – until

For more information, call 410-827-8056 ext. 115  
Pre-registration is not necessary.

**Pesticide Container Recycling**  
**MAY 17, 2001**

Sussex Conservation District Maintenance Yard  
Shortly Road, Georgetown, DE  
Collections from 9:30-1:30 p.m.

FREE OF CHARGE!  
All containers must be properly rinsed.

Questions? Call Delaware Department of Agriculture at 302-739-4811 or 1-800-282-8685.

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**Weather Summary**

<table>
<thead>
<tr>
<th>Weather Summary</th>
<th>Week of April 26 to May 2, 2001</th>
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<tbody>
<tr>
<td><strong>Rainfall:</strong></td>
<td>None.</td>
</tr>
<tr>
<td><strong>Readings taken for the previous 24 hours at 8 a.m.</strong></td>
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<tr>
<td><strong>Air Temperature:</strong></td>
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<tr>
<td>Highs Ranged from 85°F on May 2 to 60°F on April 26.</td>
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<tr>
<td>Lows Ranged from 52°F on May 2 to 33°F on April 29.</td>
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<tr>
<td><strong>Soil Temperature:</strong></td>
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<tr>
<td>62°F average for the week.</td>
<td></td>
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<tr>
<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](http://www.rec.udel.edu)

**Compiled and Edited By:**

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Extension Associate - Vegetable Crops

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