Vegetables

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

Potatoes.
The earliest planted potatoes are just starting to emerge from the ground. As soon as it warms up, begin looking for Colorado potato beetle adults feeding on plants, especially where Admire was not used at planting. No insecticides will be needed until you find 25 beetles per 50 plants and defoliation has reached 10%.

Sweet Corn.
Spike stage plants can be found in the earliest planted fields. As soon as plants emerge, begin to scout fields for flea beetles and cutworms. A cutworm treatment should be applied if you find 10% leaf feeding or 3% cut plants in one-two leaf stage corn. Ambush, Asana, Pounce, or Warrior will provide effective control. Fields should be treated early in the morning or in the early evening when cutworms are close to the soil surface to achieve the best control. In order to get an accurate estimate of flea beetle populations; fields should be scouted mid-day when beetles are active. A treatment will be needed if 5% of the plants are infested with beetles. Ambush, Asana, Baythroid, Pounce, Sevin or Warrior will provide effective control.

Revised Diazinon Crop List.
A recent list of cancelled uses for diazinon indicates that we will not be affected by this group of cancelled uses. Agricultural uses to be cancelled include: alfalfa, bermuda grass, dried beans and dried peas, radicchio, citrus, clover, coffee, cotton, cowpeas, dandelions, kiwi, lespedeza, pastures, sheep, sorghum, rangeland, and tobacco. Most of our important uses including seed treatment on snap beans, lima beans and sweet corn; and at planting uses on cole crops, melons and spinach have been retained for now. The use on cucumbers, peas, peppers, potatoes and squash will be retained for 24(C) state labels only. We will keep you informed if other changes are made.

Herbicide Rotations: Lima Beans and Pickles – Ed Kee, Extension Vegetable Crops Specialist; kee@udel.edu

Growers and processors generally agree that since 1988, when Pursuit was first used for weed control on lima beans, lima bean fields have been cleaner and more weed free than previous years. However, Pursuit can be relatively long lasting in the soil, and strict attention needs to be paid to the soil carry-over restrictions. In the late 1980s, in our research and in a few unfortunate commercial situations, we saw significant injury to pickling...
cucumbers, carrots, and spinach planted 12 months after Pursuit applications on lima beans.

Growers confronted with this rotation dilemma can use a preplant incorporated program of Dual (1 to 1.33 pints/acre) plus Treflan (1 pint/acre). Excellent grass control will be achieved, the Dual will control yellow nutsedge, and the combination will help with several major broadleaf weeds. Dual will have good activity on pigweed, nightshade, purslane, and some other minor weeds. Treflan will help with lambsquarters and smartweed. Neither material will have good control of velvetleaf or jimsonweed. Early scouting to control these weeds with Basagran is necessary.

**Reflex – Section 18 for snap beans** - Mark VanGessel, Extension Weed Specialist, mjv@udel.edu

Delaware has been granted a section 18 for use of Reflex on snap beans during the 2001 growing season. Reflex will provide good to excellent control of nightshade, jimsonweed, morningglory, pigweed, and ragweed provided these weeds have 4 leaves or less. Also, Reflex should not be used on the same field for two consecutive years.

**Field Crops**

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

**Alfalfa.**

Although we have observed tip feeding from alfalfa weevil, the recent cool weather has slowed development. Development will stop when temperatures fall below 48ºF but few, if any, are killed by these cold temperatures. However if plant development is affected by the weather, they may not be able to tolerate the same number of larvae. Since our thresholds are based on the height of alfalfa, be sure to use actively growing plants to determine height and do not count cold/frost-damaged stems in the mix. As a general rule, treatment should be applied when 50% of the tips exhibit feeding damage. Once alfalfa reaches 12-inches tall, the treatment threshold is one per stem. In 13 to 15-inch tall alfalfa, the threshold is 1.5 per stem.

**Field Corn.**

Although cutworm moth activity increased this past week, moth catches are significantly lower compared to this time last year. As indicated in past newsletters, trap catches only provide an indication of areas of potential cutworm outbreaks. In areas with significant trap counts, you should begin to see cutting when 300 base-50 degree-days have accumulated since peak moth flights. We have not seen peak flights as of this date. Current trap catches can be found at http://www.udel.edu/IPM/traps/currentbcwtrap.html.

**Wheat.**

The recent cool, wet weather has resulted in significantly lower numbers of cereal leaf beetle adults and egg laying compared to last year. Egg laying is extremely light and no egg hatch has been observed. Although a combination insecticide/fungicide application from late April to the first of May has provided season long insect control in past years, this application may be too early this season. It will be critical to scout fields and apply treatments when threshold levels are present to prevent multiple applications. For more information on cereal leaf beetle, check our website at http://www.udel.edu/IPM/pow/pow-clb.html. Last week, we saw a significant increase in true armyworm moth catches. A cumulative count of 200 moths for the month of April indicates the potential for a true armyworm outbreak. Since diseases and weather factors can reduce populations, fields should still be scouted for armyworm activity. Currently, the highest trap catches have been found in the Bridgeville,
Laurel, Little Creek, Killen's Pond, and Rising Sun areas.

**Frosty Temperatures and Wheat - Richard W. Taylor, Extension Agronomist; rtaylor@udel.edu**

Temperatures last Thursday morning at least in the northern region of Delmarva fell into the mid-twenties before rebounding during the day. Some small grains have reached or passed Feeke’s growth stage 5 or initial jointing. This places the growing point above ground where late season freezes can cause damage. For freeze damage to occur to the growing point, temperatures need to fall to around 24°F., remain there for several hours, and the plant must be at a susceptible stage for freeze damage to occur (jointing so the growing point is above the soil surface). Another susceptible period occurs as the head emerges from the boot and anther (pollen) development reaches a critical stage. Very late frosts can cause pollen sterility and severely reduce yields. Our small grains are not at this stage but some are jointed so freeze damage could occur to the growing point.

What should you be looking for when scouting fields for frost damage? First, damage is not likely to be visible for a number of days following a frost. Wait a week to a week and a half before checking for evidence of damage. Right now you can record which fields are at a susceptible growth stage and were likely exposed to prolonged low temperatures (fields with surrounding trees that reduce air movement and shade parts of the field from the early morning sun, no-till fields where colder soil temperatures provide less buffer to cold air temperatures, and fields or parts of fields at the bottom of slopes where the coldest air will accumulate).

In 7 to 10 days, sample areas of fields that were likely exposed to frosts. Split the stem and examine the growing point with a hand lens. If the growing point (magnified you’ll be able to see what appears to be a miniature seed head) is glossy with a white to light green color and is not limp or flaccid looking, damage likely did not occur. However, if the head appears to be cream or tan in color or is flaccid or limp and smaller than heads from areas of the field that appeared to not be injured or are unlikely to have been injured, then the growing point was likely killed by the cold temperatures.

If you find damage, randomly sample your field and determine the percentage of seed heads that are damaged. If twenty percent or less seed heads are damage, the field should still produce a good yield. The smaller, later tillers from each plant should continue development and help buffer yield losses. Higher percentage of damage will mean greater yield loss.

One last note, in years past, we have noted that even light frosts can cause newly emerging leaves and especially the flag leaf to take on a curly-cue or pig’s tail appearance. This damage often doesn’t appear immediately after frost. Often growers will not relate this symptom to frost damage. Note that we’ve not seen a relationship between yield and leaf damage.

**UPCOMING MEETINGS:**

**Alfalfa Twilight Field Workshop**

**Date:** Tuesday, April 24, 2001  
**Time:** 5:30 PM to 7:30 PM  
**Place:** Mike Bullock, Bullock Farms, 1201 Bullock Road, Harrington, DE  
**Contact:** Gordon Johnson, Kent County Extension Office, 302-730-4000, gcjohn@udel.edu
Directions: From Harrington head West on Rt 16 out of town about 1 mile; turn right onto Whiteleysburg Road; take Whiteleysburg Road about 5 ½ miles then turn left onto Bullock Road; the farm will be about 1 mile on the right.

All alfalfa producers and those interested in growing alfalfa are invited to attend an Alfalfa Twilight Field Workshop on Tuesday, April 24, 2001, from 5:30 pm to dusk. The workshop will be held at Bullock Farms on Bullock road west of Harrington.

In this workshop we will be teaching how to scout for and control alfalfa insects such as alfalfa weevil and leafhopper, weed identification and control, alfalfa disease identification and management, stand evaluation, nutrient deficiency identification, fertilization and liming programs.

Anyone interested is welcome to attend. Please call (302) 730-4000 if you will be attending.

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

Compiled and Edited By:

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Weather Summary

Week of April 12 to April 18

<table>
<thead>
<tr>
<th>Rainfall:</th>
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<tbody>
<tr>
<td>0.01 inches: April 12</td>
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<tr>
<td>0.13 inches: April 14</td>
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<tr>
<td>0.16 inches: April 17</td>
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<tr>
<td>0.10 inches: April 18</td>
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<tr>
<td>Readings taken for the previous 24 hours at 8 a.m.</td>
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Air Temperature:
- Highs Ranged from 77°F on April 12 to 51°F on April 17.
- Lows Ranged from 59°F on April 13 to 36°F on April 18.

Soil Temperature:
- 56°F average for the week.
  (Soil temperature taken at a 2 inch depth, under sod)