Vegetables

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

**Beet Armyworm**
We are starting to see an increase in population pressure in a number of fall vegetables so be sure to select materials that are labeled for beet armyworm control. As a reminder, the pyrethroids have not provided effective beet armyworm control.

**Cabbage**
Continue to scout all fields for beet armyworm, cabbage looper, diamond back moth larvae and harlequin bugs.

**Lima Beans**
Continue to scout all fields for corn earworm, beet armyworm, stinkbugs and soybean loopers.

**Peppers**
In areas where corn borers are being caught in local traps, fields should be sprayed on a 7-day schedule for corn borer control. In areas where corn borer catches are above 10 per night, a 5 to 7-day schedule may be needed. Be sure to check local moth catches in your area at [http://ag.udel.edu/extension/IPM/traps/latestblt.html](http://ag.udel.edu/extension/IPM/traps/latestblt.html). We are also starting to see an increase in beet armyworms and aphids as well.

**Snap Beans**
You will still need to consider treatments for both corn borer and corn earworm from the bud stage through harvest on processing snap beans. After the pin sprays, you will need to use a combination of field scouting for corn earworm and recent trap catches for corn borer to help decide on the spray interval between the pin stage and harvest for processing snap beans ([http://ag.udel.edu/extension/IPM/traps/latestblt.html](http://ag.udel.edu/extension/IPM/traps/latestblt.html) and [http://ag.udel.edu/extension/IPM/thresh/snapbeanecbthresh.html](http://ag.udel.edu/extension/IPM/thresh/snapbeanecbthresh.html)). Once pins are present on fresh market snap beans, a 5 to 7-day schedule should be considered for corn borer and corn earworm control.

**Spinach**
Both webworms and beet armyworm can be found feeding on small plants. Controls should be applied when worms are small and before they have moved deep into the hearts of the plants or produced webbing. Remember that both insects can produce webbing on the plants. Generally, at least 2 applications may be needed to achieve control of webworms and beet armyworm. If both species are present, Intrepid or Confirm are labeled for both species. Avaunt recently received a label for spinach for beet armyworm control ([http://www.cdms.net/LDat/ld4BD026.pdf](http://www.cdms.net/LDat/ld4BD026.pdf)). Mustang Max also received a label for spinach this year ([http://www.cdms.net/LDat/ld67J028.pdf](http://www.cdms.net/LDat/ld67J028.pdf)). Please see the label for the list of insects controlled — webworm is not on the label. As a
reminder, pyrethroids have not provided effective beet armyworm control.

Sweet Corn
With the high corn earworm catches throughout the state, all fresh market silking sweet corn should still be sprayed on a 2-day schedule.

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

White Rust on Spinach
Symptoms of white rust include irregular, chlorotic areas on the upper leaf surface with white, blister-like pustules developing on the lower leaf surface. Development of white rust is favored by cool nights and mild day temperatures with prolonged periods of dew or fog which favor wet leaf surfaces. Control of white rust begins with crop rotations of 2 or more years. Some varieties have partial resistance and should be used if possible. A preventative fungicide schedule should begin 2 to 3 weeks after planting, and/or if weather conditions favor disease development. There are a number of fungicides labeled for the control of white rust on spinach. For more information on the control of white rust on spinach please see the 2007 Delaware Commercial Vegetable Production Recommendations.

Cucurbit Downy Mildew
Cucurbit downy mildew was reported on pumpkins from Maryland last week and this week it was identified on pumpkins in Sussex County near cucumbers that were infected. The incidence and severity were low and hard to see on leaves that were heavily infected with powdery mildew as well. From a diagnostic viewpoint, we also discovered that some infected areas on the underside of the leaf that look dark enough to be downy mildew are really infected with powdery mildew and Alternaria — which is producing the dark areas on the underside of the leaves. One of the best ways to check for downy mildew is to look at the infected leaves in the early morning while still covered with dew and look for water soaked angular spots (lesions) on the undersides of the leaves. If in doubt, bring in a sample to your county Extension office. See Kate Everts’ article from last week’s WCU for fungicide recommendations for downy mildew on pumpkin http://www.rec.udel.edu/Update07/Volume15,Issue23.htm.

The downy mildew forecast for spore distribution and survival is low until Monday depending on what the approaching cold front does. Continue to monitor the website http://www.ces.ncsu.edu/depts/pp/cucurbit/index.php if you still have cucurbits at risk.

Agronomic Crops

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

Soybeans
Unfortunately, corn earworm trap catches remain relatively high (only a few starting to decrease) and economic levels of corn earworm can still be found in fields throughout the state. In a number of cases, there are fields in Sussex County that need to be sprayed a second time due to re-infestation of fields. These fields were treated 7-10 days ago and new small worms can again be found in fields. There have only been isolated reports of 1-2 fields with large larvae present after treatment. With the continued and extended heavy moth flights, this should be expected. It has been a year of extended, heavy pressure and fields continue to be attractive to egg laying moths. Just like in Virginia, growers are advised to use a non-pyrethroid material if a second application is needed. Unfortunately, we have not seen any diseased worms, which in past years would help to crash populations. Therefore, you should not count on this until we see the first diseased worms. Although diseases can help to crash populations, you generally need a combination of rainy weather, cool evenings and warm days for a week to see populations crashing from disease organisms. Fields should still be scouted and treated if economic levels are present.

We have also had reports of an increase in beet armyworms in isolated fields. If they are the predominant species, be sure to select a
material that will control the complex of insects present.

Be sure to check all labels for the rates, days from last application to harvest as well as other restrictions.

Small Grains
As you make plans to plant small grains, you need to remember that Hessian fly can still be a problem. Although we did not have major infestations, there were reports of isolated infestations this past year. Since the fly survives as puparia (“flax seeds”) in wheat stubble through the summer, you should still consider this pest as you make plans to plant small grains. In most cases, damage has been the result of spring infestations. Plants attacked in the spring have shortened and weakened stems that may eventually break just above the first or second node, causing plants to lodge near harvest. The traditional method of control is based on delaying planting until after flies have emerged. Warm fall weather conditions can extend fly emergence and egg-laying beyond the fly-free dates, but these dates should still be used as a guideline for planting. Since we rarely see plants stunted in the fall, we still feel that most of the damage we see is occurring from spring infestations. Plants attacked in the fall at the one-leaf stage may be killed outright. Wheat attacked later in the fall will be severely stunted, with the first tillers killed and plant growth delayed. Plants infested in the fall can easily be recognized by their darker than normal bluish coloration and leaves with unusually broad blades. Combinations of strategies are needed to reduce problems from Hessian fly:

- Be sure to completely plow under infested wheat stubble to prevent flies from emerging.
- Avoid planting wheat into last season’s wheat stubble, especially if it was infested with Hessian fly.
- Avoid planting wheat next to last season’s wheat fields - the most serious infestations can occur when wheat is early planted into wheat stubble or into fields next to wheat stubble.
- Eliminate volunteer wheat before planting to prevent early egg-laying.
- Do not use wheat as a fall cover crop near fields with infestations.
- When possible, plant after the fly-free date. (Oct 3 – New Castle County; Oct 8 – Kent County; Oct 10 – Sussex County.)
- Plant resistant varieties. You should look for varieties that have resistance to Biotype L. You will need to check with your seed dealers to identify varieties that are adapted to our area.

Agronomic Crop Diseases - Bob Mulrooney; Extension Plant Pathologist; bobmul@udel.edu

Soybean Rust Update
On September 6, soybean rust was detected in a commercial soybean field in the far northern part of Sumter County in west-central Alabama along the border with Mississippi. On September 4, soybean rust was found on soybeans in Washington County, Arkansas. On September 3, soybean rust was found in a soybean research plot in Cook County, Georgia. Soybean rust is continuing to be detected in the South where the rainfall and temperatures have been favorable. It is still moving slowly in the Southeast. There is still no rust in SC or NC; it has been as dry as it is here on Delmarva.

Full season soybeans that are in the advanced stages of pod fill are not at risk from rust. Once beans have reached R6 they are no longer at risk from soybean rust. We are continuing to check our sentinel plots and spore trap weekly as are the rest of the states to our south. Hopefully
soybean rust will not be an issue in a year with so many other production problems like the drought and now podworms. Keep current on the SBR situation by checking the IPM PIPE website www.sbrusa.net

Corn
Corn harvest is underway so be sure to check corn fields for lodging potential by squeezing the lower nodes or pushing on the stalks. A simple way to do this is to walk through the field and, keeping your hands at chest height, push stalks 8-10 inches from vertical. If 10-15% of the stalks lodge, schedule the field for early harvest before a strong wind results in severe lodging. Check out Gordon Johnson’s article in last week’s WCU for good information on stalk lodging http://www.rec.udel.edu/Update07/Volume15,Issue23.htm.

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

Commodity Trading is Risky Business
Commodity market volatility continues to make pricing commodities extremely difficult whether one is making cash or futures market sales. For example, now is not the time for the novice to enter the fray of outright commodity futures market trading. Extreme market volatility leads to extreme margin calls, regardless of whether one has taken a hedged or speculative position in the futures market. There should be a difference in how one executes hedged vs. speculative trading, although those differences may not be as rigidly marked as they once were. Futures trading should not be taken lightly. Accounts must be managed. If one plans to enter a futures contract for hedging and/or speculative purposes then an exit strategy must be planned. Just remember that sometimes the best made plans do not or can not be executed. In some cases this can further confound the commodity marketer’s losses. One of the extenuating circumstances that commodity marketers must contend with from time to time is the production shortfall, resulting in the inability to honor previously drawn contracts. Delaware is experiencing a production shortfall this year for ’07 corn and soybean production, the extent of which is not yet known.

What to do in Event of a Production Shortfall
In the case of options on futures, where one previously bought a put option to establish a minimum price and now realizes that production is short, all that remains to be done is to offset the option or to let the option expire worthless, depending upon whether the option is in the money, out of the money, or has any remaining time value. In the event the option expires worthless the cost to the grain seller is the amount of the option premium paid plus commission for a round turn. In the event of cash contracted sales the grain marketer essentially has three options: cancel the contract balance; buy in same amount for account customer; or roll the contract. Let’s first consider buying in same amount for account customer. Assume the grain marketer forward priced corn for harvest delivery at $3.00 per bushel with a local grain buyer. The grain buyer in turn hedged the corn in the futures market at $3.00 per bushel. It is now delivery time. Dec corn futures are at $3.50 per bushel. The grain marketer is experiencing a production shortfall and can not make delivery to honor the contract. The grain marketer owes 50 cents per bushel to the grain buyer to cover the futures loss in order to settle the contract as long as the bushels are bought in. A second option is for the grain marketer to roll the contract to next year’s harvest delivery. In this case, if the Dec ’08 corn futures price is $3.90 per bushel the grain buyer will offer $3.90 - 50 cents/bushel = $3.40 per bushel for the same bushel amount to be delivered during next year’s harvest.

The third option involves canceling the contract balance. In this case the forward contracted price for harvest delivery was $4.00 per bushel and the Dec ’07 corn futures price is now $3.50 per bushel. A production shortfall has occurred and the grain seller cannot fill a portion or any of the contracted amount. The seller can elect to have a neighbor to fill the contract, if the bushels are available, or the grain seller can walk away. The grain buyer then must acquire the previously contracted bushels from another seller. If not available locally, the buyer then will pay the current futures price plus the cost
of freight in order to replace the bushels previously contracted.

Both of the contract settlement options for cash contracting commodities require third party verification that the crop is short. There also may be some variations to the seller's delivery options discussed above that can only be deciphered on a case by case basis. It is recommended that the grain seller report any pending production shortfall to the grain buyer as soon as it becomes known. The specifics of what you can do need to be discussed with the grain buyer holding the contract in question. For technical assistance on grain marketing decisions contact Carl L. German, Extension Crops Marketing Specialist.

Announcements

**Wye Pumpkin & Sweet Corn Twilight**
Wednesday, September 26   4:30 p.m. – dark
Wye Research & Education Center
Queenstown, MD

- University specialists will speak about insects and diseases of pumpkin and sweet corn and current research on these crops.
- See 15 varieties of pumpkins.
- Taste four late season BT sweet corn varieties.

Registration is not required. Light fare will be served.

Questions? contact Mike Newell 410-827-7388 or email mnewell@umd.edu

For Current Agricultural Information from the UD Kent Co. Extension Office Visit the Internet Site
www.kentagextension.blogspot.com

**Current Topics:**
- Characteristics of burn-down herbicides for no-till small grains
- Important management guidelines for planting wheat
- Poultry farm litter handling recommendations
- Poultry farms, environmental regulations, and nutrient runoff
- Improvement in broiler performance due to genetics
- Circulating fans for poultry houses graphs and pictures
- Delmarva goat association social
- Circulating fans for poultry houses – article
- More on grazing management
- Clean and prepare bins before grain harvest to maintain grain quality, value
- Insect damage possible in late summer alfalfa and grass seedings
- Drought reduces stalk strength, harvest weakest fields first
- Growth regulator herbicide resistant crops on their way
- Using water consumption as a management tool in poultry
- The importance of grazing management
- Preharvest herbicide aids for problem weeds like morningglory
- Tips for assessing corn hybrid demonstration plots
- Major differences in UD Smyrna dryland corn trials
- Soybean rust update
- Defoliators in alfalfa and grass fields
- Look for soybean aphids through full seed stage
- Lodging in corn
- Charcoal rot starting to appear in soybeans
- Hessian fly and wheat planting
- Fall weed scouting
- Last cutting of alfalfa
Pesticide Safety Training and Testing for Delaware Pesticide Applicators Certification
September 18 & 19, 2007
and
December 3 & 4, 2007

Del Tech Terry Campus, Dover, DE
Room 400A Corporate Training Center

Training — September 18th and December 3rd
8:30 a.m. – 5:00 p.m.

Exam — September 19th and December 4th
8:00 a.m. – 11:00 a.m.

You must register for the EXAM by calling DDA at 1-800-282-8685.

For more information and the new on-line training go to: http://ag.udel.edu/extension/pesticide/index.php

Questions? contact:
Susan Whitney King (302) 831-8886 or
Larry Towle 1-800-282-8685

Weather Summary
Carvel Research and Education Center Georgetown, DE
Week of August 30 to September 5, 2007
Readings Taken from Midnight to Midnight

Rainfall:
no rainfall recorded

Air Temperature:
Highs Ranged from 90°F on September 4 to 81°F on September 1.
Lows Ranged from 65°F on September 4 to 54°F on September 2.

Soil Temperature:
80°F average.
(Soil temperature taken at a 2” depth, under sod)

Additional Delaware weather data is available at http://www.rec.udel.edu/TopLevel/Weather.htm

Weekly Crop Update is compiled and edited by
Emmalea Ernest, Extension Associate - Vegetable Crops

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