



# WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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## Vegetables

Vegetable Crop Insects - *Joanne Whalen, Extension IPM Specialist; [jwhalen@udel.edu](mailto:jwhalen@udel.edu)*

### Cabbage

Continue to scout all fields for beet armyworm, fall armyworm, diamondback and cabbage looper larvae.

### Lima Beans

Continue to scout all fields for lygus bugs, stinkbugs, corn earworm, soybean loopers and beet armyworm. Multiple sprays will be needed for worm control.

### Peppers

Be sure to maintain a 5 to 7-day spray schedule for corn borer, corn earworm, beet armyworm and fall armyworm control. You should also watch for flares in aphid populations.

### Snap Beans

All fresh market and processing snap beans will need to be sprayed from the bud stage through harvest for corn borer and corn earworm control. In addition, the highest labeled rates may be needed if population pressure is heavy in your area.

### Spinach

Both webworms and beet armyworms are active at this time and controls need to 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. Generally, at least 2 applications are needed to achieve control of webworms and beet armyworm.

### Sweet Corn

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

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Pythium Pod Rot on Snap Beans - *Kate Everts, Vegetable Pathologist, University of Delaware and University of Maryland; [keverts@umd.edu](mailto:keverts@umd.edu)*

With recent rains, snap beans are at risk of Pythium pod rot. Recently the EPA approved Ridomil Gold Copper for use on Pythium pod rot in both Maryland and Delaware. Begin applications when Pythium pod rot first occurs and continue on a 7 to 10-day schedule. Apply 1 pack of Ridomil Gold Copper (5 lbs product)/2.5 acres. Ridomil Gold Copper has a 3 day PHI, and there is a limit of four applications per season.

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Threat of Lima Bean Diseases Increases - *Bob Mulrooney, Extension Plant Pathologist; [bobmul@udel.edu](mailto:bobmul@udel.edu)*

With the return of significant rain in most areas, the threat of downy mildew and white mold increases. Be sure to scout regularly for symptoms of these two important diseases of limas. See Kate Everts' article, [White Mold on](#)

[Lima and Snap Beans](#), in this issue of WCU for more information on white mold.

For downy mildew the best predictor, for most situations, is the Hyre-Cox model that states that conditions for downy mildew are favorable when fields receive 1.2 inches or more of rain within 7 days and the average daily temperature during that period is 78° F or less. Heavy dew and/or fog reduce the amount of rainfall needed to provide favorable conditions. Fungicide recommendations for control of downy mildew in lima beans were discussed in the article titled [Downy Mildew on Lima Beans](#) in [WCU 16:23](#).



Downy mildew on limas is characterized by white downy growth on the pods, petioles and racemes. A reddish brown border often surrounds the infected area on the pods.



Downy mildew on petioles and stems often produces the distorted “crooks” seen in this picture.

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**White Mold on Lima and Snap Beans** - *Kate Everts, Vegetable Pathologist, University of Delaware and University of Maryland; [keverts@umd.edu](mailto:keverts@umd.edu)*

Snap beans and lima beans are at risk of white mold when the soil has been wet for 6 to 10 days before bloom. For snap beans, a fungicide should be applied when the plants are at 10 - 20% bloom, and followed with a second spray in 7 to 10 days if soil remains wet. Prolonged soil moisture also triggers white mold in lima bean, however later applications of fungicide (post bloom) have been beneficial to lima beans because they are a longer season crop.



Both snap and lima beans can be sprayed with the following:

- Endura 70WP at 8-11 oz/A (This was the most effective fungicide in my lima bean trials.)

Other effective fungicides are:

- Rovral 4F at 1-2 pts/A
- Topsin M 70WP at 1.5 to 2 lb/A
- Switch 62.5WG at 11-14 oz/A

The following may be used for snap beans only:

- Endura 5 oz/A plus thiophanate-methyl at 0.7-1.05 lb/A active ingredient
- Topsin M 70WP at 11.2 oz/A plus chlorothalonil 6F at 1.5 pts/A
- Switch 62.5WG at 6-11 oz/A plus thiophanate-methyl at 0.7-1.05 lb/A active ingredient



White mold on snap beans or lima beans is characterized by dense white cottony growth. All plant parts can be infected as the fungus grows from initial infection of flowers and pins to stems and leaves.



When white mold infection is advanced the fungus produces hard black overwintering structures called sclerotia. The presence of these confirms the presence of white mold.

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### Sweet Potato Harvest, Curing, and Storage

-Gordon Johnson, Extension Ag Agent, Kent Co.;  
[gcjohn@udel.edu](mailto:gcjohn@udel.edu)

There are a considerable number of small acreage commercial growers of sweet potatoes in Delaware because it is a profitable crop for fall sales, especially before the holidays. The following are some guidelines for harvesting, curing, and storage of sweet potatoes:

- Sweet potatoes may be dug any time they have developed market size. Normally, vines will have started to yellow at this time.

- Caution must be taken when digging sweet potatoes. The sweet potato has a thin, delicate skin that is easily broken. Any cuts, bruises, or skin abrasions will reduce quality and storability significantly.

- A common method for digging is using a one bottom plow or middlebuster to expose the row. Sweet potatoes are picked up by hand and then placed into baskets, slatted crates, or small bins, being careful not to cause cuts, abrasions, or bruises. Small acreage growers can also lift potatoes using a garden fork. Expect to miss about 20% of marketable roots with these methods.

- Modified potato diggers can also be used for harvesting. The key with these mechanical diggers is to carry enough soil up the separation chain to limit root contact with the rods and to have a limited drop to the ground to reduce cuts and bruises. Vines normally are mowed before digging. Again, sweet potatoes are picked up by hand into baskets or bins. Larger machines that convey the sweet potatoes to a grading line or bins are used on some farms in major sweet potato producing areas such as North Carolina.

- Sweet potatoes are best dug while soil temperatures are relatively high and soil is on the dry side. Roots are injured below 55°F. If sweet potato vines are exposed to a light frost, no injury will occur normally if dug quickly because soil temperatures have not dropped too low (it should still be around 60°F near most roots). Heavy frosts or freezes will drop soil temperatures below critical levels, causing significant losses.

- Washed and graded sweet potatoes can be sold immediately without curing; however, for Thanksgiving and Christmas markets, curing will be necessary.

- Bins or baskets containing harvested sweet potato roots should be taken to an area to cure. Do not wash before curing. In the curing process, cuts and abrasions are healed over allowing for longer term storage. The ideal conditions for curing are a temperature of 85°F and 90% humidity for 5-7 days. This is an issue because most growers in Delaware do not have dedicated curing houses. As an alternative, place covered

baskets or bins containing sweet potatoes in an empty greenhouse. Water the floor heavily or put pans of water out to keep the humidity up and turn the heat on so night temperatures do not drop below 70°F. Set fans for 85°F for the daytime. Using this method, curing will take 14 days usually.

- Once cured, store as close to 60°F as possible, but no lower, in an area where you can maintain a high humidity. Most local commercially grown sweet potatoes are stored no longer than Christmas.

- Before marketing, cured sweet potatoes should be washed and graded, allowed to dry, and then boxed.

## Agronomic Crops

[Agronomic Crop Insects](#) - Joanne Whalen, Extension IPM Specialist; [jwhalen@udel.edu](mailto:jwhalen@udel.edu)

### Alfalfa

Continue to sample fields on a weekly basis for leafhopper adults and nymphs as well as defoliators, including earworm, webworms and fall armyworms.

### Soybeans

We continue to hear reports of newly hatched corn earworm larvae in fields that were not treated. However, in many cases there is a mixed population - i.e. small, medium and large larvae. Fields that were sprayed with a pyrethroid when the worms were small are still clean. If worms were larger at treatment time, then there are still larger worms present in fields. We have started to see parasitized large larvae so hopefully that is a sign that the populations are starting to crash. However, we have not seen any diseased worms yet. If a mixed population size is present at treatment time, then a material like Steward or Larvin should be used.

There are a number of other insects present in double crop fields including stinkbugs, bean leaf beetles, grasshoppers, and green cloverworms. The threshold of all may need to be reduced if a

mixed population is present. As a reminder, both bean leaf beetles and grasshoppers will also feed on pods.

### 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 see major infestations this year, we did see fields with isolated infestations. 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 our area, 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. 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.

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**Soybean Rust Update** - *Bob Mulrooney*,  
*Extension Plant Pathologist*; [bobmul@udel.edu](mailto:bobmul@udel.edu)

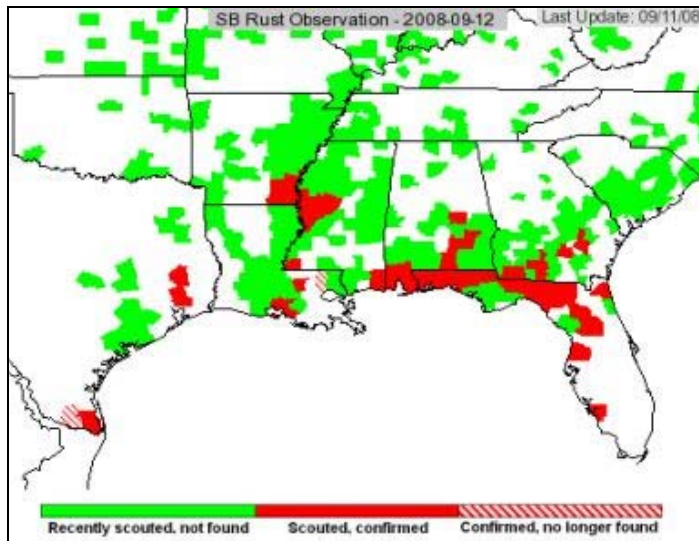
On September 11<sup>th</sup>, soybean rust was reported on soybean plants from George and Yazoo Counties, Mississippi. On September 10<sup>th</sup>, soybean rust was reported on soybean plants from Colquitt County, Georgia and on kudzu in Okaloosa County, Florida. That makes 23 new county reports since September 1<sup>st</sup>.

As you can see soybean rust is picking up some steam, in the Gulf States primarily, but has spread to southeast AK as well. It is not moving up the Atlantic Coast at this time. Fortunately for us Hurricane Hanna could have been a transport event bringing spores from the FL and GA but its track moved more easterly taking any possible spores out to sea. Had the storm hit a few days later and moved a little more to the west we could have had some movement of spores into Delmarva. It is too early to predict if there will be any effects from Hurricane Ike, but the forecast is as follows:

The path of Hurricane Ike will have a very strong bearing on what areas will observe an increased risk of spore transport and deposition over the weekend. The cold front combined with Ike will transport spores as far northeastward as New Jersey. Deposition and survival will be possible in areas of heavy cloud cover and rain, such as Texas, the Lower Mississippi River Valley, and the southern Great Plain states. Spraying is not recommended.

It still looks like we will miss soybean rust this year but with as many late soybeans as there are this year there is always a chance, even if it is low. You can keep current on the situation by visiting the ipmPIPE website at <http://sbr.ipmpipe.org>.






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**Prevention of Disease in Small Grains** - *Bob Mulrooney, Extension Plant Pathologist;*  
[bobmul@udel.edu](mailto:bobmul@udel.edu)

Be sure to plant fungicide treated seed for control of loose smut and common bunt especially if you saved your own seed for planting. Select varieties that are high yielding as well as resistant to powdery mildew, leaf rust and stripe rust.

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**Grain Marketing Highlights** - *Carl German, Extension Crops Marketing Specialist;*  
[clgerman@udel.edu](mailto:clgerman@udel.edu)

**Ahead of the Report**

USDA will release the September Crop Production and Supply and Demand Reports Friday morning, September 12<sup>th</sup>. Production estimates will hopefully determine the level of projected ending stocks for the '08/'09 marketing year. New crop corn and soybean prices have again traded lower this week with old crop SRW wheat following suit. The spreads between the nearby futures contract months and the distant storage months are indicative that remaining grain sales will need to be made into the storage months. The U.S. dollar index has now posted a 10 point gain since July 15<sup>th</sup>, a turn around from a five year low. The strength in the dollar is expected to slow the demand for U.S. exports. Even so the weekly export sales report, released

this morning, was viewed as bearish to neutral for corn, bullish for soybeans, and bullish for wheat.

Simultaneously, commodity speculators have taken to the sidelines over the past two months. World trade activity has also slowed since May '08 according to the Biffex Panamax Index (sometimes viewed as a measure of world trade activity).

**Marketing Strategies**

Major uncertainties lie ahead for U.S. agriculture. As stated previously the dynamics of the grain markets are changing. It is difficult to agree with any one analyst's view on price projections due to the pending questions concerning the banking industry and the credit crunch, a subject that most analysts seem to ignore. Nevertheless, USDA's September report will form the basis for grain marketing decisions for remaining portions of the '07/'08 marketing year as well as looking ahead to next year. Currently, Dec '08 corn futures are trading at \$5.37; Nov '08 soybean futures at \$11.76; and Dec '08 wheat futures are trading at \$7.34 per bushel.

For technical assistance on making grain marketing decisions contact Carl L. German, Extension Crops Marketing Specialist.

## Announcements

**For Current Agricultural Information from the UD Kent Co. Extension Office Visit**  
[www.kentagextension.blogspot.com](http://www.kentagextension.blogspot.com)

**Recent Topics:**

- Corn Lodging
- Soybean Rust and Hanna
- What is the Status of Double Crop Soybeans?
- Podworms are Active in Wheat Beans
- Wheat Seeding Rate
- Wheat Planting Date Considerations
- Dairy – Timing is Important in Milking Prep Procedures
- Poultry – Litter Treatments Reduce Heating Costs
- Combine Corn Harvest Checks
- Hanna, a Drought Breaker?

- Grain Markets Drop
- Apple Season
- Calibrate Yield Monitors

### Delaware-Maryland AgrAbility Project Depression Screening

Friday, October 10 9:00 a.m. - noon  
University of Delaware  
Carvel Research and Education Center  
16483 County Seat Highway, Georgetown, DE

October 10, 2008 is National Depression Screening Day. The day will be observed by many community organizations, colleges and primary care providers offering free, anonymous mental health screenings in an effort to educate members of the public on the symptoms of depression and warning signs of suicide, and the appropriate actions to take. Mental health professionals will be available to speak with individuals regarding their personal situations at no cost and with no appointment necessary.

As with other illnesses, such as cancer or hypertension, the early detection of mental health disorders greatly increases the chances that an individual will receive the appropriate treatment and experience a better quality of life.

Reaching community members with undetected and untreated mental disorders has never been more important. Studies show that most Americans wait years before they seek treatment for a mental health disorder, and many never seek treatment at all. Don't let depression rob you of the joy to be found in life. There is help for you if you think you might be one of the thousands who are dealing with depression or anxiety.

The Delaware-Maryland AgrAbility Project will mark the day by conducting a Depression Screening at the Carvel Research and Education Center, in Georgetown. This screening is open to farm families and also to those who live in the surrounding community.

Call Sally Van Schaik at (302) 253-1140 for more information. No appointment is necessary. All screenings are confidential.

### Pumpkin Growers Twilight Meeting & Sweet Corn Twilight Meeting

Thursday, September 25 4:30 p.m. - dark  
Wye Research and Education Center  
211 Farm Lane, Queenstown, MD 21658

Meeting participants will be able to see and taste 7 BT sweet corn varieties from a late planted trial. Dr. Galen Dively, long time IPM specialist, will be here for discussion. Also, see 30 varieties of pumpkins grown in a no-till hairy vetch system. Hear university specialists Kate Everts, Jerry Brust, Bryan Butler and Mike Newell describe current pumpkin trials and grower concerns about pumpkin culture and management.

No registration required, light refreshments will be provided.

For more information contact Michael Newell at (410) 827-7388 or [mnewell@umd.edu](mailto:mnewell@umd.edu).

## Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of September 4 to September 10, 2008

Readings Taken from Midnight to Midnight

#### Rainfall:

0.19 inch: September 5

1.41 inch: September 6

0.91 inch: September 9

#### Air Temperature:

Highs ranged from 94°F on September 4 to 73°F on September 10.

Lows ranged from 73°F on September 6 to 61°F on September 5 and September 8.

Additional Delaware weather data is available at [http://www.deos.udel.edu/monthly\\_retrieval.html](http://www.deos.udel.edu/monthly_retrieval.html) and

<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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