



# WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

Volume 16, Issue 11

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## Vegetables

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

### Cabbage

Economic levels of diamondback and imported cabbage worm larvae continue to be found. A treatment should be applied when 5% of the plants are infested and before larvae move to the hearts of the plants.

### Cucumbers

All fields should be scouted for cucumber beetles and aphids. Fresh market cucumbers are susceptible to bacterial wilt, so treatments should be applied before beetles feed extensively on cotyledons and first true leaves. Although pickling cucumbers have a tolerance to wilt, a treatment may still be needed for machine-harvested pickling cucumbers when 5% of plants are infested with beetles and/or plants are showing fresh feeding injury. A treatment should be applied for aphids if 10 to 20 percent of the plants are infested with aphids with 5 or more aphids per leaf.

### Melons

Continue to scout all melons for aphids, cucumber beetles, and spider mites. The treatment threshold for aphids is 20% infested plants with at least 5 aphids per leaf. Be sure to also watch for beneficials. The threshold for mites is 20-30% infested crowns with 1-2 mites per leaf. Acramite, Agri-Mek, bifenthrin, Danitol, and Oberon are labeled on melons for mite

control. The manufacturer of Acramite (Chemtura) recommends against mixing Acramite with any sticker or products containing stickers. LI700 has been used with Acramite on apples and they have not experienced any problems. They have also had good success using silicone based wetting agents, such as Silwet and Kinetic, with Acramite. It is also important to maintain a tank-mix at or below pH 7.0. In actual field use, they have seen that a pH of 6.5 or lower is better. Be sure to watch carefully for cucumber beetles. Since beetles can continue to re-infest fields as well as hide under the plastic, multiple applications are often needed. Foliar products labeled for cucumber beetle control on melons include a number of pyrethroids, Assail, Lannate, Sevin, and Thionex. Venom 70SG also has a 2ee label for cucumber beetle control on cucurbits (<http://www.cdms.net/LDat/ld76N019.pdf>). Be sure to check all labels for rates, precautions and restrictions, especially as they apply to pollinators.

### Peppers

Continue to sample for thrips. We are hearing reports of high thrips activity on crops in Virginia. You should also continue to sample for corn borers and watch carefully for egg masses. Before fruit is present these young corn borer larvae can infest stems and petioles. Be sure to also check local moth catches in your area by calling the Crop Pest Hotline – in-state: 800-345-7544; out of state: (302) 831-8851 or visiting our website at (<http://ag.udel.edu/extension/IPM/traps/latest/blt.html>). You should also watch for an increase

in aphid populations. A treatment may be needed prior to fruit set if you find 1-2 aphids per leaf for at least 2 consecutive weeks and beneficial activity is low.

### Potatoes

Fields should be scouted for Colorado potato beetle (CPB), corn borers (ECB) and leafhoppers. Adult CPB as well as the first small larvae can now be found. A treatment should be considered for adults when you find 25 beetles per 50 plants and defoliation has reached the 10% level. Once larvae are detected, the threshold is 4 small larvae per plant or 1.5 large larvae per plant. We are starting to see the first corn borer egg masses in the earliest planted fields. A corn borer spray may be needed 3-5 days after an increase in trap catches (<http://ag.udel.edu/extension/IPM/traps/latestblt.html>) or when we reach 700-degree days (base 50). If you are scouting for infested terminals, the first treatment should be applied when 10% (fresh market) or 20-25 % (processing) of the terminals are infested. As a general guideline, controls should be applied for leafhoppers if you find ½ to one adult per sweep and/or one nymph per every 10 leaves.

### Snap Beans

Continue to sample all seedling stage fields for leafhopper and thrips activity. The thrips threshold is 5-6 per leaflet and the leafhopper threshold is 5 per sweep. If both insects are present, the threshold for each should be reduced by 1/3. If both insects are present, Lannate, bifenthrin, Proaxis and Warrior (lambda-cyhalothrin) are labeled for both insect pests on snap beans. In addition, be sure to watch for bean leaf beetle. Damage appears as circular holes in leaves and significant defoliation can quickly occur. As a general guideline, a treatment should be considered if defoliation exceeds 20% prebloom. A pyrethroid, dimethoate or Sevin are labeled for control. As a general guideline, once corn borer catches reach 2 per night, fresh market and processing snap beans in the bud to pin stages should be sprayed for corn borer. Sprays will be needed at the bud and pin stages on processing beans. Once pins are present on fresh market snap beans and corn borer trap catches are above 2 per night, a 7-10 day schedule should be maintained for corn

borer control. Check trap catches at: <http://ag.udel.edu/extension/IPM/traps/latestblt.html>.

### Sweet Corn

Continue to sample seedling stage fields for cutworms and flea beetles. You should also sample all whorl stage corn for corn borers. A treatment should be applied if 15% of the plants are infested. The first silk sprays will be needed for corn earworm as soon as ear shanks are visible. Over the past week, corn earworm catches have been high in the Bridgeville and Laurel areas. On early silking sweet corn, sprays are needed on a 3 day schedule in Sussex County and on a 3-4 day schedule in Kent County. Be sure to check trap catches since the spray schedules can quickly change. You can call the Crop Pest Hotline for the most recent trap catches — in state: 1-800-345-7544; out of state: 302-831-8851 or check our website at <http://ag.udel.edu/extension/IPM/traps/latestblt.html>.

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**MELCAST for Watermelons** - *Kate Everts, Vegetable Pathologist, University of Delaware and University of Maryland; [keverts@umd.edu](mailto:keverts@umd.edu)*

The weather based forecasting program MELCAST has begun for 2008. MELCAST is a weather-based spray scheduling program for anthracnose and gummy stem blight of watermelon. If you received a report in 2007 by fax, you should have received the first 2008 report last week. We are still working on the email addresses, but look for your email report today (Friday, May 30). If you are not receiving reports and would like to, please call Jeri Cook at (410) 742-8788 and give us your name and fax number or e-mail address. We have "migrated" the information to a new website, so bookmark the new site at <http://mdvegdisease.umd.edu/>. Click on the watermelon picture. (We are still in the process of moving the MELCAST-cantaloupe and the Tomcast reports.)

To use MELCAST for watermelons, apply the first fungicide spray when the watermelon vines meet within the row. Additional sprays should be applied using MELCAST. Accumulate EFI (environmental favorability index) values

beginning the day after your first fungicide spray. Apply a fungicide spray when 30 EFI values have accumulated by the weather station nearest your fields. Add 2 points for each overhead irrigation applied. After a fungicide is applied, reset your counter to 0 and start over. If a spray has not been applied in 14 days, apply a fungicide, reset the counter to 0 and start over. Please call Kate Everts if you have any

questions on how to use MELCAST on your crop : (410) 742-8789.

Because of widespread resistance to Quadris in our area, chlorothalonil (Bravo, etc.) or Pristine *plus* chlorothalonil *alternated* with chlorothalonil is recommended when spraying according to MELCAST. If a serious disease outbreak occurs in your field, return to a weekly spray schedule.

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**Potato Disease Advisory #5 - May 27, 2008** - Bob Mulrooney, Extension Plant Pathologist;  
[bobmul@udel.edu](mailto:bobmul@udel.edu)

### Late Blight Advisory

Disease Severity Value (DSV) Accumulation as of May 26, 2008 is as follows:

Location: Broad Acres, Zimmerman Farm, Rt. 9, Kent County

Greenrow: April 27

Remember that 18 DSVs is the threshold to begin a spray program.

Date	Total DSV	Spray Recommendation
4/27 - 5/6	7	None
5/8 - 5/10	16	None
5/11 - 5/12	21	5-day spray interval
5/12 - 5/14	21	5-day spray interval
5/16 - 5/17	27	7-day spray interval
5/18 - 5/21	32	5-day spray interval
5/22 - 5/26	32	7-day spray interval

The current weather pattern has not been favorable for late blight. **The DSV threshold of 18 is exceeded and sprays should be initiated if not already done.** Remember that these values are for potatoes that would have had about 50% emergence and made a row that you can see on or before April 27.

Growers who do not want to rely only on the DSV calculations for scheduling fungicide applications should apply at least 1-2 sprays of mancozeb (Dithane, Manzate, Pencozeb, Manex II) or Bravo (chlorothalonil) before plants canopy down the row. At this point weekly fungicide applications would be suggested. For specific fungicide recommendations, see the 2008 Delaware Commercial Vegetable Production Recommendations Book.

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**Dual Now Labeled for Row Middles of Pumpkins** - Mark VanGessel, *Extension Weed Specialist*; [mjv@udel.edu](mailto:mjv@udel.edu)

Dual Magnum has recently received a label for use for row middles of pumpkins. The rate is 1 to 1.33 pts/A of Dual Magnum applied preemergence (before the weeds have emerged) as an inter-row or inter-hill application in pumpkin. Leave 1 foot of untreated area over the row, or 6 inches to each side of the planted hill and/or any emerged pumpkin foliage (inter-row or inter-hill means not directly over the planted seed or young pumpkin plants). Spray over the planted row or hill, or applications made directly to crop foliage will increase the risk of injury to the pumpkin crop, such as stand loss, delayed maturity, and loss of yield. Dual Magnum will not control emerged weeds, and thus should be applied before the weeds emerge. Weeds that are present should be controlled by another means, i.e. by mechanical means or by another herbicide.

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**Weed Control in Row Middles of Watermelons** - Mark VanGessel, *Extension Weed Specialist*; [mjv@udel.edu](mailto:mjv@udel.edu)

Weed control in row middles is very important. Use of a hooded sprayer will allow for an application of paraquat (Gramoxone Inteon) to control emerged weeds and allow for delayed application of residual herbicides such as Curbit, Sandea, or Sinbar. Delayed applications allow for improved weed control later into the growing season. Curbit and/or Command are labeled for grass control in row middles. Sandea will provide control of numerous broadleaf species plus nutsedge. However, Sandea will not control morningglory. Sinbar should be included if morningglory control is needed. Do not use glyphosate in the row middles since drift onto watermelon foliage can kill the watermelon plant.

**Postemergence Broadleaf Weed Control in Snap and Lima Beans** - Mark VanGessel, *Extension Weed Specialist*; [mjv@udel.edu](mailto:mjv@udel.edu)

Broadleaf weed control in snap beans and lima beans can be accomplished with Sandea, Raptor, or Basagran; and Reflex is labeled only for snap bean. Do not spray before the first trifoliolate is fully expanded for all of these products. Sandea requires at least two fully expanded trifoliolates. All of these products should be applied before the beans have started to flower. These products are not effective on most weed species over 3 inches tall. So they need to be applied early (approximately 3 to 4 weeks after planting).

Reflex, for **snap bean only**, can be tankmixed with Basagran to improve common lambsquarters control.

Raptor is not labeled for all the Mid-Atlantic States in these crops. Raptor is labeled for lima beans in Delaware, Maryland, and Virginia and for snap beans in Delaware, Maryland, Pennsylvania, and Virginia. The label requires the addition of Basagran at 6 to 16 fl oz/A to improve crop safety and minimize the yellowing in the young tissue. In addition, it is labeled for use with a non-ionic surfactant.

Remember there are biotypes of pigweed and common lambsquarters in the Mid-Atlantic region that are resistant to Sandea, Pursuit, and Raptor. If you are concerned about resistance, please contact me.

## Agronomic Crops

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

**Alfalfa**

Potato leafhoppers are now present in fields so be sure to sample on a weekly basis after the first cutting. Once plants are yellow, yield loss has already occurred. The treatment thresholds are 20 per 100 sweeps on alfalfa 3 inches or less in height, 50 per 100 sweeps in 4-6 inch tall alfalfa and 100 per 100 sweeps in 7-11 inch tall alfalfa.

## Field Corn

As small grain dries down, be sure to watch for armyworms moving out of small grain and into adjacent corn fields. You should also scout corn for armyworms in fields that were planted into a small grain cover. Remember, worms must be less than 1 inch long to achieve effective control. The treatment threshold for armyworms in corn is 25% infested plants with larvae less than one-inch long. Large larvae feeding deep in the whorls will be difficult to control.

## Small Grains

As small grains dry down, be sure to watch for head clipping from armyworm and sawfly. In fields that did not receive an insecticide spray we have seen old head clipping from grass sawfly larvae. As a guideline, a treatment should be applied for sawflies when you find 2 larvae per 5 foot of row innerspace or 0.4 larvae per foot of row. However, remember if the number of clipped heads is twice the worm count for sawflies then it is generally too late to treat for them.

## Soybeans

Continue to sample for bean leaf beetles and grasshoppers. After last season, we all know that grasshoppers can be extremely difficult to control and multiple applications will be needed. In general, the treatment threshold for grasshoppers is 1 per sweep and 30% defoliation. Sprays may be needed sooner if stand loss is occurring. Early detection and control of small grasshoppers is necessary to achieve control. Numerous products are labeled for grasshopper control including a number of pyrethroids, dimethoate, Furadan (currently under review by EPA for cancellation but FMC rep says it should be available this year), Lorsban, Orthene 97 and Sevin XLR.

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## Higher Rates of FirstRate are Now Allowed in Soybeans - Mark VanGessel, Extension Weed Specialist; [mjv@udel.edu](mailto:mjv@udel.edu)

The labeled rate for FirstRate as a postemergence broadcast spray has been at a rate of 0.3 oz/A. Recent label changes now allow rates up to 0.6 oz/A for heavy weed infestations or added residual control.

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

### General Comments

The grain and oilseed markets are a moving target. Information is constantly fed into the trading pits where commodity prices are bid accordingly, seeking to find equilibrium. At times isolated events can have drastic effects upon prices. At other times the information hasn't really changed all that much from month to month or week to week. It is important for us to weigh the factors that are impacting the commodities market while not losing sight of those factors influencing the markets that have not changed. Crude oil prices, while recently peaking at \$133.70 per barrel, have backed off this week with July crude trading at \$129.86 in overnight trading. The U.S. dollar index, which set its low at 71.05 on April 22<sup>nd</sup> (closing at 71.54 that day), closed at 72.62 in yesterday's trading. The point being that energy prices are still high and the value of the dollar is still low. The looming question, as related to commodity marketing, is whether these factors (oil prices and the value of the dollar) are changing. Could we be seeing a reversal in the trends?

Apparently, the verdict is still out on the influence that Index Funds have on commodity prices. The Commodity Futures Trading Commission (CFTC) issued a report, prior to the conduct of the April forum, stating that the funds are not having any undue influence on commodity prices. Obviously, there are varying opinions on this issue. The biggest influence in these markets may well be the fact that we are dealing with demand driven markets. Eventually, any vagaries in the markets will work themselves



out. In the meantime, we shouldn't look for any changes forthcoming regarding trading rules for the different classifications of speculative traders.

### **Corn Analysis**

The nation's corn crop is now 88% planted, 6 to 8 points behind the same week last year and the 5-year average. Slightly over half of the crop is emerged, running about 14 points behind last year and 28 points behind the 5-year average. A warming trend is forecast for the Corn Belt this week with temperatures around the 80 degree mark which is expected to enhance '08 crop development.

USDA officially opened some of the CRP to haying or grazing late Tuesday. Futures traders were said to view this development as slightly bearish to corn futures because the decision could result in slightly less corn being fed.

Weekly export shipments of U.S. corn are considered neutral to bullish. Neutral because actual shipments were running well behind the pace needed to meet projections. Bullish because the combined export sales report showed sales at 30.6 million bushels. This was above the range of estimates and slightly ahead of that needed to stay on pace with USDA's projection of 2.5 billion bushels to be exported in the '07/'08 marketing year.

### **Soybean Analysis**

Argentine soybean export shipments have been stopped again due to the farmer strike. In the short run the Argentine strike is beneficial to U.S. and Brazilian export business. The soybean harvest is now complete in the Southern Hemisphere. U.S. soybean planting is now slightly over 50%, running 22 points behind the 5-year average and 15 points behind last year.

The weekly export sales report for soybeans was bullish. Only 0.5 million bushels (mb) were needed last week to stay on pace with USDA's projection of 1.090 billion bushels for the '07/'08 marketing year. The combined total for weekly sales was reported at 31.9 mb. Shipments were also ahead of the amount needed to be on pace with projections.

### **Wheat Analysis**

As the '08 wheat harvest nears, pressure is said to be building on wheat prices. World demand for new crop wheat is very strong. The actual size and quality of this year's harvest won't be known until the wheat is in the bin. Wheat prices are being supported by outside forces.

Accumulated sales for the 50<sup>th</sup> week of this marketing year for wheat are at 1.257 billion bushels as compared to USDA's forecast of 1.280 bb. Weekly sales were within the range of estimates. Shipments were far behind the 57.7 mb needed to stay on pace with projections. The export situation for wheat is said to be bearish to neutral.

### **Market Strategy**

Throughout the summer, commodity markets will be driven by weather developments, energy prices, the value of the dollar, fund investing, and global demand. Normally speaking, the corn market is entering that period of time that a seasonal high is made. Whether that holds true this year or not depends upon crop development. Remember, there is no room for margin of error in U.S. corn and soybean production this year.

The soybean market is currently being influenced by the situation in Argentina. China has been on a buying spree in recent months in preparation for hosting the Olympics. The consuming public is beginning to conserve by cutting back on travel plans for the summer. More Americans stayed home this Memorial Day weekend when compared to last year. As demand for energy slows the price of crude oil is likely to come down.

The U.S. corn crop is nearly planted. Actual acreage planted will be reported on June 31<sup>st</sup>. Dec '08 corn futures are currently trading at \$6.15 per bushel; Nov '08 soybeans at \$13.48 per bushel; and July '08 wheat at \$7.49 per bushel.

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

## General

**Cultivation and Postemergence Herbicide Treatment** - Mark VanGessel, Extension Weed Specialist; [mjv@udel.edu](mailto:mjv@udel.edu)

Questions have come in about whether to cultivate first or spray first for weed control. Keep a few things in mind. Weeds are easier to control when they are small but consider which option is going to be more effective when weeds get larger. Cultivation will control the weeds between the rows but not in the row. Those weeds in the row are the ones you need to base your decision on whether to spray first. More often than not, it is better to spray first then cultivate. In addition, weeds not completely killed with cultivation are more difficult to control with herbicides. \*\*Note this assumes that the herbicide is the right herbicide for the weed(s) in your field. The weeds that emerge after cultivation are going to be much smaller and have less impact on yield (if any impact at all). Setting your cultivator so it runs only 1 to 2 inches deep will slice through the weeds and not disrupt the herbicide layer from your preemergence herbicides. This in turn will limit the number of weeds that will emerge due to cultivation. It is recommended to wait a minimum of 5 to 7 days between herbicide treatment and cultivation.

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## Announcements

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

### **Recent Topics:**

Adjust Soybean Seeding Rates for Germination Percentage  
Early Root Development in Corn  
Purple Corn  
Uneven Corn Stands  
Salt Tests in Tidal Flooded Areas  
Current Crop Conditions in the County  
Thrips on the Eastern Shore of Virginia  
Dairy - Composted Bedded Pack System  
Hay Preservation With Propionic Acid  
Poultry - Maintain Your Fan Belts and Pulleys  
More on Slug Effects in Corn  
Soybean Burndown - Considerations With Large Weeds  
Buttercups in Pastures and Hayfields

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### **Tractor Driving 101**

Thursday, June 12, 2008 6:00 p.m.  
DSU Smyrna Outreach and Research Center  
884 Smyrna-Leipsic Rd, Smyrna, DE

Here is the opportunity to attend a hands-on training on how to safely operate and drive a compact tractor.

Light refreshments served.

Please call (302) 857-6462 to register.

*This workshop is part of the 2008 Small/ Beginning Farm Workshop Series held by Delaware State University. For complete information on the workshops planned, see the brochure at <http://www.rec.udel.edu/update08/announcements/sma1lfarmbrochure2008.pdf>*

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## Chronic Pain Workshop

June 9, 2008 9:00 a.m.-noon

Richard A. Henson Conference Center  
University of Maryland Eastern Shore  
Princess Anne, MD

The American Chronic Pain Association and the Delaware-Maryland AgrAbility Project will be presenting a chronic pain seminar entitled "Growing Well with Pain".

Penny Cowan, founder and Executive Director of the American Chronic Pain Association, will lead this workshop aimed at helping agricultural workers, their families, and the health care community to better understand chronic pain and cope with the challenges it presents.

Go to <http://www.rec.udel.edu/Update08/announcements/chronicpainworkshop.pdf> for additional details on the workshop.

Reservations are required and the seminar is free if you register by June 4, 2008. Call Sally VanSchaik to register at 1-877-204-3276.

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## Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of May 22 to May 28, 2008

Readings Taken from Midnight to Midnight

### Rainfall:

no rainfall recorded

### Air Temperature:

Highs ranged from 83°F on May 27 to 67°F on May 22.

Lows ranged from 67°F on May 27 to 44°F on May 22 and May 23.

### Soil Temperature:

66°F average.

(Soil temperature taken at a 2" depth, under sod)

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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