



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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Vegetables

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

NOTE - Be sure to check BLT catches in your area for corn borer and corn earworm catches - we are seeing a significant increase in trap catches for both insect pests

(<http://ag.udel.edu/extension/IPM/traps/latestblt.html>). On Friday, trap catches will be updated in the afternoon on the webpage.

Cabbage

Continue to sample for cabbage looper, diamondback larvae and harlequin bug. Although the pyrethroids will provide control of harlequin bugs, they are not effective on diamondback in our area. So be sure to scout and select control options based on the complex of insects present in the field.

Cucumbers

Be sure to watch for an increase in cucumber beetle and aphid populations. 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.

Lima Beans

Continue to scout for stinkbugs, lygus bugs and corn earworm. With the significant increase in corn earworm moth catches, moths can be readily found laying eggs in fields. Be sure to sample for corn earworm larvae as soon as pin pods are present. A treatment will be needed if

you find one corn earworm larvae per 6 ft-of-row.

Melons

We continue to see an increase in aphid populations. Treatments should be applied before populations explode and leaf curling occurs. Lannate, Fulfill, Beleaf, Thionex, and Assail are all labeled for aphid control in melons. Be sure to check labels for the days between last application and harvest (PHI).

Peppers

We are seeing a significant increase in both corn earworm and corn borer moth catches in blacklight traps throughout the state. So be sure to maintain a 5 to 7-day schedule on all peppers for worm control. Be sure to check local moth catches in your area by calling the Crop Pest Hotline (in state: 1-800-345-7544; out of state: 302-831-8851) or visiting our website at (<http://ag.udel.edu/extension/IPM/traps/latestblt.html>). Also, be sure to select materials that control both earworms and corn borers.

Snap Beans

With the significant increase in both corn borer and corn earworm moth catches, you will need to consider a treatment for both insect pests. Sprays are needed at the bud and pin stages on processing beans for corn borer and corn earworm control at this time. As a reminder, if you are using Orthene (acephate) for corn borer control, it will not provide effective corn earworm control in processing snap beans. You will need to combine Orthene with a corn earworm material (e.g. a pyrethroid) or use a

material that will control both insect pests. Check our website for the most recent trap catches in your area 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> and <http://ag.udel.edu/extension/IPM/thresh/snapbeanecbthresh.html>).

Spinach

As the earliest planted spinach emerges from the ground, be sure to watch for webworms and beet armyworms. Both moths 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. The first silk sprays will be needed as soon as ear shanks are visible. Be sure to check both blacklight and pheromone trap catches for silk spray schedules since the spray schedules can quickly change. Trap catches are generally updated on Tuesday and Friday mornings (<http://ag.udel.edu/extension/IPM/traps/latestblt.html> and <http://ag.udel.edu/extension/IPM/thresh/silksp raythresh.html>). You can also call the Crop Pest Hotline (in state: 1-800-345-7544; out of state: 302-831-8851). At this time of year, you will need to combine a fall armyworm material with a pyrethroid for the first 2 to 3 silk sprays for fall armyworm control. Be sure to check all labels for days to harvest and maximum amount allowed per acre.

Powdery Mildew on Watermelon - *Kate Everts, Vegetable Pathologist, University of Delaware and University of Maryland; keverts@umd.edu*

The cucurbit crops that are the most susceptible to powdery include pumpkin, squash, muskmelon, and cucumber that does not have resistance. However, in the past ten years, I have seen more and more watermelon fields where powdery mildew has become a problem. Quintec, a new fungicide that has excellent activity on powdery mildew, is registered on melons.

Remember that resistance to group 11 fungicides (strobilurin fungicides such as Quadris, Cabrio, or Flint) is widespread around the U.S. — **do not** rely on these materials. A good program for watermelon or muskmelon (cantaloupe) is to scout for powdery mildew and if it is present in the field, apply chlorothalonil plus Quintec rotated with Nova or Procure plus chlorothalonil. Quintec, a group 13 fungicide, has performed well in trials. Quintec has a 3 day PHI and is applied at 4 to 6 fl oz/A in 30 gallons of water (optimum spray volume). Aerial application is not allowed.

Controlling Cucurbit Downy Mildew and Powdery Mildew - *Bob Mulrooney, Extension Plant Pathologist; bobmul@udel.edu*

The recent high-pressure system that has brought us the dry weather and low humidity has slowed the progress of any **downy mildew** that is present. Spray schedules could be extended if the disease is not present or is at low levels. Cucurbits other than cucumbers are probably at low risk until we get some more humidity and dews in the morning. Usually this time of year we can have dew and fog until late morning, which is very favorable for downy mildew. Continue to check the downy mildew forecasting site at NC State for updates. <http://www.ces.ncsu.edu/depts/pp/cucurbit/>

Growers are having trouble with **powdery mildew** on pumpkins and other cucurbits at this

time of year. This weather pattern has been very favorable for powdery mildew.

FOR CONTROL OF CUCURBIT POWDERY MILDEW IN:

Pumpkin and Winter Squash Fields

ALTERNATE

Nova or Rally (myclobutanil, 3) at 5 oz 40WP/A
plus chlorothalonil at 2-3 pt 6F/A

or

Procure (triflumizole, 3) at 4-8 oz 50WS/A *plus*
chlorothalonil at 2-3 pt 6F/A

WITH

Micronized Wettable Sulfur (M2) at 4 lb 80W/A
(Sulfur may injure plants especially at high
temperatures. Certain varieties can be more
sensitive. Consult label for precautions.)

or

Chlorothalonil *plus* Pristine (pyraclostrobin
+boscalid, 11 + 7) at 12.5-18.5 oz 38WG/A

If powdery mildew has become well established
in the mid to late part of the season, only apply
protectant fungicides such as chlorothalonil or
sulfur.

Summer Squash and Cucumber Fields

ALTERNATE

Nova or Rally (myclobutanil, 3) at 5 oz 40WP/A
plus chlorothalonil at 2-3 pt 6F/A

or

Procure (triflumizole, 3) at 4-8 oz 50WS/A *plus*
chlorothalonil at 2-3 pt 6F/A

WITH

Chlorothalonil *plus* Pristine (pyraclostrobin +
boscalid, 11 + 7) at 12.5-18.5 oz 38WG/A

In Muskmelon and Watermelon Fields

ALTERNATE

Nova or Rally (myclobutanil, 3) at 5 oz 40WP/A
plus chlorothalonil at 2-3 pt 6F/A

or

Procure (triflumizole, 3) at 4-8 oz 50WS/A *plus*
chlorothalonil at 2-3 pt 6F/A

WITH

Quintec (quinoxifen, 13) at 6 oz 2.08F/A *plus*
chlorothalonil at 2-3 pt 6F/A

or

Chlorothalonil *plus* Pristine (pyraclostrobin +
boscalid, 11 + 7) at 12.5-18.5 oz 38WG/A

For more information on control of Powdery
mildew of cucurbits please see the *2008
Delaware Commercial Vegetable Production
Recommendations Guide*.

Downy Mildew on Lima Beans - Bob Mulrooney, Extension Plant Pathologist; bobmul@udel.edu

When cooler nights and heavy dew begin, along
with heavy rainfall associated with tropical
storms and hurricanes, **downy mildew** can
threaten the fall lima bean crop. Last season
downy mildew appeared sporadically. Race F of
Phytophthora phaseoli was the only race
identified in 2006, which may predominate if
downy mildew should appear again. Preventative
applications of 2 lbs fixed copper, 2 lbs Ridomil
Gold/Copper, or 3-4 pts Phostrol have provided
control of downy mildew in the past. The best
controls continue to be Ridomil/Gold Copper or
Phostrol, especially when disease pressure is
high. Application at flowering or when pods are
first forming is recommended if weather is
favorable for disease. If disease is present,
Ridomil/Gold Copper and Phostrol have been
shown to provide some curative activity if
applied when downy mildew is first seen. Be sure
to have a copy of the label on hand since
Ridomil/Gold Copper and Phostrol have 24c
labeling in DE.

Last season Headline from BASF was also labeled
for downy mildew after the Vegetable
Recommendations went to press so it is not in
the current edition. I have tested it and it has
provided good control of downy when applied on
a 10-day schedule at 6.0 fl oz/A. It does not give
as good disease control as Ridomil Gold/Copper
or Phostrol preventatively, but the yields have
been comparable. It is also labeled for
anthracnose, which the other products do not
control. If soybean rust had become a problem in
other legumes it would have been another
fungicide in the toolbox for lima beans, since it
is labeled for soybean rust on limas as well.

Fungicide Rates and Intervals for Control of Downy Mildew of Baby Lima Beans

Fungicide	Preventative		Curative ¹	
	High Disease ²	Low Disease ³	High Disease ²	Low Disease ³
Ridomil Gold/ Copper	2 lb 2X 7 to 14-day interval	2 lb 1X	2 lb 2X 7 to 14-day interval	2 lb 1 to 2X 10 to 14-day interval
Phostrol	3-4 pt 1 to 2 X 7 to 14-day interval	2-4 pt 1 to 2 X 7 to 14-day interval	3-4 pt 2 X 7-day interval	4 pt 1X or 2-4 pt 2X 7 to 14-day interval
Copper ⁴	2 lb 4X 7-day interval (may not control)	2 lb 2 to 3X 7 to 10-day interval	Not Recommended	

¹Curative - when disease first seen, very low incidence, less than 1% of pods and/or racemes infected

²High Disease - conditions very favorable for infection and spread, i.e. ample rainfall, dews, fog and cool temperatures

³Low Disease - conditions less favorable for disease, i.e. low humidity and rainfall and/or temperatures too high (high 80s and above)

⁴Copper fungicides include Champ DF, Kocide, Cuprofix Disperss and other labeled coppers.

Agronomic Crops

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

Soybeans

As the potential for late season insect control increases, be sure to check all labels for the days from last application to harvest, as well as other restrictions. You will also need to scout carefully for earworms during the next week. Today's blacklight trap catch is showing a dramatic increase in moth catches throughout Kent and Sussex counties, and we can readily find moths laying eggs in fields - especially double-crop fields.

As of today we continue to find sporadic numbers of corn earworms in soybean fields; **however, this can quickly change so be sure to scout all fields.** Information from VA and areas to the south indicates that they are starting to spray fields; however, populations vary in the south based on the degree of drought stress in corn, as well as differences in corn maturity. As we know, when corn dries down, the moths emerging from larvae found in corn fields will lay eggs in soybeans. The only way to know if you have an economic level will be to scout. In the past, we have used the treatment threshold of 3 corn earworms per 25 sweeps in narrow-row

fields and 5 corn earworms per 25 sweeps in wide-row fields (20 inches or greater). However, these are static thresholds that were calculated for a 10-year average soybean bushel value of \$6.28. With higher soybean prices, the best approach to determining a threshold is to access the Corn Earworm Calculator (<http://www.ipm.vt.edu/cew/>) which estimates a threshold based on the actual treatment cost and bushel value you enter.

Soybean Rust Update - Bob Mulrooney,
Extension Plant Pathologist; bobmul@udel.edu

On August 20th, soybean rust was detected at extremely low levels in a commercial soybean field in Jackson County, Mississippi. On the same date the disease was reported in a soybean sentinel plot in Washington County, Florida, in the Panhandle. Tropical Storm Fay is presently moving north on the east coast of Florida where soybean rust has not been detected. If the storm turns west as predicted, the eye will move through the Panhandle which has areas with soybean rust-infected kudzu. Approximately 75 counties had reported rust by mid-August of 2007 compared to the 30 counties that have reported the disease so far this year.

On the soybean rust control side, the section 18 labels for Folicur, Orius and Uppercut (all have

the same active ingredient, tebuconazole) expired last November. The section 18 labels were in the process of being renewed when Folicur was granted section 3 national labels for control of soybean rust, just a short time ago. If this triazole fungicide is needed, there is no need for growers to have a special section 18 label in hand if they purchase Folicur for use on soybeans. State approval should be done as soon as the manufacturers notify the state. The other labels for Orius and Uppercut should follow soon. This may be more of an issue for the growers in the South, but it is welcome news anyway.

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

Commodity Markets Post Gains

Over the past twelve trading days new crop corn, soybean, and wheat prices have regained some of their recent losses. Dec corn has recovered nearly \$1.20 per bushel; Nov soybeans \$1.80 per bushel; and Dec '08 SRW wheat has increased nearly \$1.50 per bushel from the lows that were made two weeks ago. With the U.S. 2008 row crop harvest fast approaching can we realistically expect the present rally to take on the elements of a bull market? To a large degree the answer to that question lies within the outcome of the '08 harvest. U.S. soybean stocks are tight, estimated at 135 million bushels carry over for the '08/'09 marketing year. Recent reports coming out of the Corn Belt suggest that this crop needs rain in order to fill pods. In the event that we do not achieve the 40.5 bushels per acre average soybean yield for the U.S. as USDA has projected, then U.S. soybeans will get even tighter going into the '09/'10 marketing year. There is also the question concerning the U.S. corn yield which USDA has projected at 155 bushels per acre. Some say it is out there, while others say it is not. The spreads between nearby futures contracts and the distant months suggests that commodity traders are more willing to believe that the soybean yield may end up being lower than USDA's August estimate than the corn yield. In the event that the U.S. corn yield does not equal 155 bushels per acre then we will enter a situation where corn supply

also becomes short. Bear in mind that ending stocks for U.S. corn are now projected at 1.133 billion bushels.

The dynamics of the grain and oilseed markets are changing - or are they? The price of crude is currently about \$25.00 per barrel lower than the high made on July 11th. One week ago crude oil was about \$35.00 per barrel lower than the high made on July 11th. Corn prices are now about \$1.25 per bushel lower than the high made on June 30th and soybean prices are about \$2.25 per bushel lower than the high made on July 3rd. The U.S. dollar index has improved about 5 points since July 15th. The commodity markets remain extremely volatile and susceptible to outside forces.

Market Strategy

Several factors line up to suggest that this is not the time to be advancing sales for the '09 harvest. The possibility of an early frost bears mentioning. In the event that a killing frost were to occur before the first week of October, Allendale, Inc. estimates that U.S. corn production would drop by 800 million to 1.14 billion bushels of production from the current forecast of 12.288 billion bushels, depending on the date of the possible frost. That amounts to 66% to 100% of the projected U.S. corn carry for the '08/'09 marketing year. World affairs are far from settled. New conflicts throughout the world can lead to higher oil prices which in turn are likely to increase the price of corn and soybeans. Corn and soybeans are going to need to bid for acres for the '09/'10 marketing year which suggests that a counter seasonal rally may be beginning. Currently, Dec '08 corn futures are trading at \$6.16; Nov '08 soybean futures are trading at \$13.54; and Dec '08 SRW wheat futures are trading at \$9.35 per bushel.

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

Fruit

Annual Plasticulture Strawberry Planting -
Gordon Johnson, Extension Ag Agent, Kent Co.;
gcjohn@udel.edu

Annual plasticulture strawberries should be scheduled for planting the first week in September. Research has shown considerable yield reductions each week that planting is delayed in the month of September. Plantings after September 15th risk much lower yields. If late planting cannot be avoided due to plant availability, labor issues, or other reasons, plan to apply floating row covers earlier in the fall to gain some additional growth. Another option for late plantings is to install vented clear plastic row covers supported by wire hoops over each bed to gain fall growth. These are then covered by floating row covers for winter, forming a double layer.

One main goal is to get the strawberry plants to regrow quickly after transplanting and irrigation is critical for this establishment period. Drip irrigation should be run ahead of planting to increase soil moisture to field capacity in beds. Overhead irrigation will be necessary if planting bare root plants and should be run for several days during daylight hours until new roots have been formed. Most growers are using rooted plug plants. Water plug plant trays to saturation just prior to setting. Ideally, water should be applied in the planting hole at transplanting. Overhead irrigation will also help the establishment of plug plants, especially in light textured soils where the drip irrigation system cannot uniformly water the whole bed.

Plant both bare root and plug plants so that the crown is at soil level. Planting too deep will risk soil getting into the crown and increases the potential for crown rot. Shallow planting will cause roots to dry out and plants will desiccate. Avoid planting in the middle of the day when the temperature beneath the plastic is at the maximum. Strawberry roots are very sensitive to high temperatures. Overhead irrigation can help to reduce plastic temperature and the lower the soil temperature.

Announcements

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

Recent Topics:

- New Vegetable Insecticides for Commercial Producers
- What is the Yield of this Drought Stressed Corn
- Grass Fed Beef Pasture Walk
- Estimating Yield Losses in Corn
- USDA Grass Fed Standard for Livestock Products
- Soybeans - Dectes Stem Borer
- Organic Twilight Tour - Cover Crops and Composting
- Drought Effects on Soybean Yield
- Drought Effects on Soybean Yield Potential
- Soybeans - Will Top Pods Fill
- Poultry - Litter Amendments
- New UD Poultry Extension Website
- Buckwheat - A Smother Crop for Weed Control
- Agronomic Crops Twilight Tour
- Current Grain Market Information
- Oberon is Permitted for Mites in Soybeans
- Rindworms in Vine Crops
- Drought Taking Hold

Beef and Sheep Pasture Walk

Wednesday, September 3 5:00 – 7:30 p.m.
University of Delaware Webb Livestock Farm
South Chapel Street, Newark, DE

Learn about pasture management and rotation for beef cattle and sheep production. Experts will be on hand from the University of Delaware and the Natural Resource Conservation Service (NRCS) to answer your questions. Nutrient Management and Pesticide credits will be available.

Please bring a folding chair.

This meeting is free and everyone interested in attending is welcome. To register, request more information or if you require special needs assistance for this meeting, please call our office in advance at (302) 831-2506.

Please register by August 29, by calling (302) 831-2506.

Beef Pasture Walk

Saturday, September 6 9:30a.m. – 12:30 p.m.
Carlton Jones Farm (C and J Farms, Inc.)
3174 Woodland Ferry Rd., Seaford, DE

The cattle on this farm are 100% grass fed; free from hormones, antibiotics, pesticides and chemicals. The Jones direct market the USDA inspected meat produced on this farm.

Learn about pasture management and rotational grazing for beef cattle. Fertility and weed management without pesticides will be discussed. Cooperative Extension specialists from the University of Delaware and the Natural Resource Conservation Service (NRCS) will be available to answer your questions!

Delaware Nutrient Management Credits will be available.

This meeting is free and everyone interested in attending is welcome. To register, request more information or if you require special needs assistance for this meeting please call our office in advance at (302) 678-4198.

Please register by August 29, by calling (302) 678-4198.

See you there!

*John Timmons
USDA, NRCS, Cropland Agronomist*

Classes for Initial Nutrient Management Certification Begin in September

If you apply nutrients to 10 or more acres of land or have 8 or more animal units (an animal unit is equal to 1000 lbs of live weight) you need to be certified through the Nutrient Management Program. Sessions for initial nutrient management certification (not continuing education credits) begin on September 3.

Visit the Nutrient Management Website:
<http://ag.udel.edu/extension/NutriManage/sessionschedule.htm>
or call Sydney Riggi at (302) 856-2585 x571 for more information.

Farm Planning 101

Thursday, September 11, 2008 6:00 p.m.
DSU Smyrna Outreach and Research Center
884 Smyrna-Leipsic Rd, Smyrna, DE

Create a business plan for your farming enterprise. Includes record-keeping and tax information

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/sma11farmbrochure2008.pdf>

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of August 14 to August 20, 2008

Readings Taken from Midnight to Midnight

Rainfall:

0.02 inch: August 15

Air Temperature:

Highs ranged from 90°F on August 19 to 79°F on August 20.

Lows ranged from 70°F on August 19 to 58°F on August 17.

Additional Delaware weather data is available at 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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