



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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Vegetables

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

Cucumbers

Continue to scout all fields for cucumber beetles and aphids.

Melons

Continue to scout all melons for aphids, cucumber beetles, and spider mites. With recent hot weather, we have started to find economic levels of spider mites in a number of fields. As a general guideline, a treatment should be considered when you find 20-30% of the plants infested with 1-2 mites per leaf. Acramite (one application only), Agri-Mek, bifenthrin, Danitol, and Oberon are labeled on melons for mite control. Zeal was also labeled this year for spider mite control on melons but it can not be applied by air (one application only). Also, it is considered ovicidal/larvacidal but will not control adult populations. Be sure to check all labels for rates, precautions and restrictions, especially as they apply to pollinators.

Peppers

As soon as the first flowers can be found, be sure to consider a corn borer treatment. Depending on local corn borer trap catches, sprays should be applied on a 7-10 day schedule once pepper fruit is ¼ - ½ inch in diameter. 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/latest/blt.html>). You will also need to consider a treatment for pepper maggot. We have also found the first beet armyworm hatching egg mass so be sure to watch for this insect, which can quickly cause defoliation.

Potatoes

Continue to scout fields for Colorado potato beetle (CPB), corn borers (ECB), aphids and leafhoppers. Controls will be needed for green peach aphids if you find 2 aphids per leaf during bloom and 4 aphids per leaf post bloom. This threshold increases to 10 per leaf at 2 weeks from vine death/kill. If melon aphids are found the threshold should be reduced by ½. It should also be noted that we did receive a 24c (specific local need) label for the use of Coragen on potatoes for Colorado potato beetle control. Please refer to the label for use directions and restrictions (<http://www.cdms.net/LDat/ld8KF004.pdf>).

Snap Beans

Continue to scout for leafhopper and thrips activity in seedling stage beans. 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. Acephate can be used at the bud and pin stages on processing beans but remember it has a 14-day wait until harvest. Additional sprays may be needed after the pin spray on processing beans. Since trap catches can change quickly, be sure to check our website for the most recent trap catches and

information on how to use this information to make a treatment decision in processing snap beans after bloom (<http://ag.udel.edu/extension/IPM/traps/latestblt.html>) and (<http://ag.udel.edu/extension/IPM/thresh/snapbeanecbthresh.html>). 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.

Sweet Corn

Continue to sample seedling stage fields for cutworms and flea beetles. You should also sample all fields from the whorl through pre-tassel stage for corn borers and corn earworms. The first silk sprays will be needed for corn earworm 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). Be sure to watch for the first fall armyworm larvae in whorl stage sweet corn - we anticipate seeing them any day and they may already be here. A treatment should be considered when 12-15% of the plants are infested. Since fall armyworm feeds deep in the whorls, sprays should be directed into the whorls and multiple applications are often needed to achieve control.

Cucurbit Disease Update - *Bob Mulrooney*,
Extension Plant Pathologist; bobmul@udel.edu

Cucurbit Powdery Mildew

Powdery mildew has been found on zucchini in New Jersey. Usually powdery mildew occurs from mid-July until the end of the season. Symptoms typically begin on older, lower leaves and can spread rapidly under dry, humid conditions. Control of powdery mildew begins with regular scouting for symptoms and weekly fungicide applications. Begin a fungicide

program when PM has been found in the region and/or when 1 lesion is found on the underside of 45 leaves. Fungicide resistance management of the fungus which causes powdery mildew is critical in the mid-Atlantic region! Fungicides with a high risk for resistance development, such as the strobilurins (Pristine, FRAC code 11) and Nova or Procure (FRAC code 3), should be tank mixed with a protectant fungicide such as chlorothalonil (M5) and rotated with fungicides of a different chemistry.

For control of cucurbit powdery mildew in:

Pumpkin and winter squash fields:

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

Alternated 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

A tank mix containing 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:

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

Alternated with a tank mix containing:

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

Muskmelon and watermelon fields:

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

Alternated with a tank mix containing:

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.

Cucurbit Downy Mildew

Continue to check the website

(<http://www.ces.ncsu.edu/depts/pp/cucurbit/forecasts/c080625.php?month=06&year=08>) for

movement of downy mildew. The latest find in the South has been Reidsville, GA on butternut squash and slicing cucumber in a regional sentinel plot. There are reports of downy mildew from GA, SC and FL. The threat of movement north is very low as of June 26.

Potato Disease Advisory #12 - June 26, 2008 - Bob Mulrooney, Extension Plant Pathologist;
bobmul@udel.edu

Disease Severity Value (DSV) Accumulation as of June 25, 2008 is as follows:

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

Greenrow: April 27

Date	LATE BLIGHT			EARLY BLIGHT
	Daily DSV	Total DSV	Spray Recs	Accumulated P days*
5/30-6/1	3	35	10-day interval	252
6/2-6/4	1	36	10-day interval	279
6/4-6/5	4	40	5-day interval	279
6/5-6/6	2	42	5-day interval	288
6/6-6/7	1	43	5-day interval	298
6/7-6/11	0	43	10-day interval	321
6/12-6/15	1	44	10-day interval	350
6/15-6/18	0	44	10-day interval	376
6/19-6/22	0	44	10-day interval	409
6/22-6/23	1	45	10-day interval	418
6/23-6/25	0	45	10-day interval	435

* P days- We use the predictive model WISDOM to determine the first fungicide application for prevention of early blight as well. The model predicts the first seasonal rise in the number of spores of the early blight fungus based on the accumulation of 300 physiological days (a type of degree-day unit, referred to as P-days) from green row. To date, 435 P-days have accumulated at the site.

Early blight and black dot. Many fields are flowering or have flowered and this is a good time to consider switching to an application or two of Gem, Headline, Quadris, or Evito (no black dot label) for early blight susceptible varieties. This can also be helpful for late season varieties including russets if stress makes plants susceptible to black dot later. Make one or two applications at the end of flowering and repeat 14 days later. Apply mancozeb or chlorothalonil 7-days later between the two applications. Otherwise maintain fungicide applications for early blight control.

For specific fungicide recommendations, see the 2008 Delaware Commercial Vegetable Production Recommendations Book.

Lima Beans Compensate for Lower Plant Stands - Gordon Johnson, Extension Ag Agent, Kent Co.; gcjohn@udel.edu

Each year there are some lima bean fields that end up with lower stands than expected due to poor field conditions (i.e. crusting after heavy rains, planter malfunctions, seed quality issues, or errors in setting planting rates). Recommendations are for a stand of 3 to 4 plants per foot of row for baby limas. In fields with lower populations, what yield effects can be expected?

The answer is very little, if any, yield losses will occur unless there are large gaps between plants, because lima beans have a great ability to compensate for lower populations by producing larger plants. In a two year study by Dr. Wally Pill at the University of Delaware, 'Maffei 15' baby lima bean seeds were sown at the recommended rate and then some plots were thinned within 2 weeks of planting to provide 0%, 16.7%, 33.3%, and 50.0% stand reduction. The research showed that even at 50% stand reduction, overall plant biomass per area was only reduced by 14-21%. The conclusion of this research was that the 'Maffei 15' lima bean tolerates a considerable loss of plant stand with little or no effect on yield.

Other research and grower reports support this claim.

Agronomic Crops

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

Alfalfa

Continue to sample for potato leafhoppers on a weekly basis. 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.

Soybeans

Continue to sample fields for bean leaf beetles, grasshoppers, green cloverworms, spider mites and thrips. Grasshopper populations have

exploded, especially in recently harvested wheat and barley fields. Please refer to past newsletters for general treatment guidelines and control options.

With the recent dry weather, we are again finding low levels of mites in soybeans. Early detection and control is needed to achieve spider mite suppression. In addition to dimethoate and Lorsban, we now have Hero labeled on soybeans. The bifenthrin component in this mix is the material that will provide spider mite suppression. However, to be effective it should be applied before mites explode. Please refer to the label for use rates and restrictions - you will need the high rate for spider mite control. It should also be noted that the label states, "Do not make applications less than 30 days apart." (<http://www.cdms.net/LDat/ld80Q005.pdf>). We have also submitted a request for an Oberon Section 18 for soybeans - we will let you know as soon as we hear anything from EPA.

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

Soybean Rust Update

Soybean rust was confirmed in Taylor County, Florida, on kudzu on June 20th. This is the first find in that county in 2008. Since the beginning of 2008, soybean rust has been reported on kudzu in one county in Alabama; eleven counties in Florida (two of these counties had reports on coral bean and snap bean, and one county had a report on soybean); three counties in Louisiana; one county in Mississippi, and three counties in Texas. Reported infected kudzu sites in many counties have been destroyed. Rust was also reported in three states (5 municipalities) in Mexico on yam bean and soybean. These too have been destroyed or are no longer active, except for the find in Chiapas.

Septoria Leafspot

Septoria leafspot is the first foliar disease that is usually seen on soybean. In areas that had adequate moisture or irrigation and cool temperatures it can be found on the first true leaves (unifoliate). It can cause some early leaf spotting and dropping of those first leaves but

the plants rapidly grow out of it until later in the season. If wet weather occurs later in August and September it is often seen again. In our area it is the one common disease that can look like soybean rust when the spots are small.



Septoria brown spot on soybeans

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

Will High Commodity Prices Slow Demand?

In light of the fact that commodity prices have surged higher this week with new crop corn (currently at \$7.85/bu.) and soybeans (currently at \$15.55/bu.) within striking distance of their life of contract highs, established on June 16th (\$7.91/bu. and \$15.64/bu., respectively), one has to wonder whether the current price levels will begin to curtail demand - thereby resulting in prices moving lower. New crop wheat, now at \$9.27 per bushel is within a nickel of resistance at \$9.31/bushel made on June 19th. Even though the weekly export sales report was reported as bullish for soybeans, bullish to neutral for corn, and bullish for wheat there are signs contained in the report that might be signaling a reversal is coming. Corn, for example, placed combined (old crop and new crop) exports at 15.9 million bushels, which was below the low end of expectations. Corn shipments at 38.7 mb were also below the 46.4 mb need to stay on pace with projected exports. Another sign that things could turn south in the near term is that Argentina is back online for exports.

Marketing Strategy

On Monday, June 30th USDA will release the June 30th Actual Plantings report for U.S. farmers. On July 11th the next Supply and Demand report for the U.S. and World will be released. It will be interesting to see just how complete those reports are considered to be? We are in a fast moving market that is being driven by many factors, several of which have been previously suggested: the value of the U.S. dollar index (now at 72.9); the price of crude oil (now at \$138.85/barrel); global demand; and index funds. A new factor is being added in market analysts' jargon this morning - inflation. Nevertheless, the task of marketing one's crops has gotten increasingly difficult with the new found price equilibriums that we are working with. Some advise making scale up sales while others have advised selling about $\frac{1}{3}$ of intended production up to now, primarily via forward cash contracts. At current price levels, one should consider advancing sales for new crop corn and soybeans bringing the total up to the 40-50% level of intended production, if not done so already. The preferred method is to use a forward cash contract sale. If the cash sale is not available and/or producing the bushels is not a given then the purchase of the put option should be used. The weekly crop conditions report, which improved the rating for corn by 2 points this week over last week (59% U.S. corn rated good to excellent) could show another improvement next Monday, June 30th. The only certainty in these markets at the present time is that we can expect extreme price volatility to continue for the foreseeable future.

On a final note, U.S. wheat production is likely to be thrown a wringer in that wheat (being a small grain) is a dry weather crop - meaning wheat does best when growing conditions are on the drier side. Overly wet conditions this spring will most likely cut into the quality, test weights, and yields of the U.S. soft red winter wheat crop that is now in the process of being harvested.

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

General

Insecticide Combinations - Joanne Whalen,
Extension IPM Specialist; jwhalen@udel.edu

In recent years, there have been a number of new insecticides introduced to the marketplace that combine 2 active ingredients. As we enter the time for spraying multiple pests on various crops, the following is a list of some of the products that I am aware of. Some products are labeled on a narrow range of crops and others on a more expanded list. This is by no means a complete list, but just some of the materials that we have received notice about from the manufactures. We also have little or no experience with these products but will be testing a few in our 2008 trials. *You will need to refer to the labels for labeled crops, use rates and restrictions.*

- Brigadier (FMC) - combination of bifenthrin and imidacloprid.
(<http://www.cdms.net/LDat/ld8LA000.pdf>)
- Cobalt (Dow) - combination of chlorpyrifos and gamma-cyhalothrin
(<http://www.cdms.net/LDat/ld8AA000.pdf>)
- Consero (Loveland/UAP) - combination of spinosad and gamma-cyhalothrin
(<http://www.cdms.net/LDat/ld7PU003.pdf>)
- Endigo ZC[®] - combination of thiamethoxam and lambda-cyhalothrin
(<http://www.cdms.net/LDat/ld7T4006.pdf>)
- Hero (FMC) - combination of zeta - cypermethrin and bifenthrin
(<http://www.cdms.net/LDat/ld80Q005.pdf>)
- Leverage[®] - combination of imidacloprid and cyfluthrin
(<http://www.cdms.net/LDat/ld6AP005.pdf>)

Announcements

DSU Smyrna Outreach and Research Center Open House

Thursday, July 10, 2008 6:00 p.m.
DSU Smyrna Outreach and Research Center
884 Smyrna-Leipsic Rd., Smyrna, DE

Come see our research and demonstration projects for 2008! We have pole lima beans, ethnic vegetables, a high tunnel, small fruits and many more.

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>

Warm Season Grass Pasture Walk

Monday, July 7, 2008 7:00 – 8:30 p.m.
Morris' Choice Bison Ranch

Have you ever been curious about how warm season grasses can improve the grazing efficiency of your pastures? Then mark your calendar for the Warm Season Grass Pasture Walk at Morris' Choice Bison Ranch!

Representatives from the Baltimore County Cooperative Extension Service and the Baltimore County Soil Conservation District will lead the pasture walk and be available to answer questions.

Contact the Baltimore County Cooperative Extension Service at (410) 666-1022 or the Baltimore County Soil Conservation District at (410) 666-1188 ext. 3 for more information.

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

Recent Topics:

Poultry - Darkling Beetles
Have Grain Markets High Been Reached
Arrested Ear Development in Corn
Manganese Deficiency in Soybeans
Fungicides for Corn
Cautions with Pre-Tassel Applications of Fungicides in
Corn
Soybean Yield Loss with Wheel Traffic
Tractor and Equipment Road Safety
Stink Bugs in Corn
Wilting in Summer Squash, Winter Squash, and
Pumpkins
Test Weight in Wheat
Lodging in Wheat

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of June 19 to June 25, 2008

Readings Taken from Midnight to Midnight

Rainfall:

0.03 inch: June 19

0.04 inch: June 21

0.06 inch: June 22

0.14 inch: June 23

Air Temperature:

Highs ranged from 86°F on June 21 to 77°F on
June 19.

Lows ranged from 66°F on June 23 to 55°F on
June 19.

Additional Delaware weather data is available at
http://www.deos.udel.edu/monthly_retrieval.html
and
<http://www.rec.udel.edu/TopLevel/Weather.htm>

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