



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

In addition to cucumber beetles, we are starting to see a few aphids in cucumbers. 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. As temperatures increase, aphid populations can explode.

Melons

Economic levels of aphids and spider mites continue to be found in fields. Hot spots of cucumber beetles can also be found. If spider mite populations are high at the time of treatment, two sprays spaced 5 days apart may be needed. Materials available for spider mite control include Acramite (one application only), Agri-Mek, Capture (bifenthrin), Danitol and Oberon. Sorry for the omission of Oberon from the list last week. Be sure to read all labels for restrictions, rates, minimum number of days allowed between applications and maximum allowable amounts.

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. You should also continue to check fields for aphids. 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

Continue to sample fields for Colorado potato beetle, corn borers and leafhoppers. Low levels of the first aphids have also been detected.

Snap Beans

Continue to scout all seedling stage fields for leafhopper and thrips activity. Virginia has reported higher levels of thrips, so watch carefully for this insect. 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. Since trap catches can change quickly, be sure to check our website for the most recent trap catches and information on how to make a treatment decision in processing snap beans using trap catches

(<http://ag.udel.edu/extension/IPM/traps/latest/blt.html>) and (<http://ag.udel.edu/extension/IPM/thresh/snapbeanecbthresh.html>).

Sweet Corn

Continue to sample all whorl stage corn for corn borers and corn earworm. With the higher pheromone trap catches in areas, we are

starting to see economic levels of corn earworms in whorl stage corn. 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. Be sure to check both blacklight and pheromone trap catches for corn earworm to make a treatment decision. 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).

Potato Disease Advisory June 15, 2007 - Bob Mulrooney, Extension Plant Pathologist

Disease Severity Value (DSV) Accumulation as of June 14, 2007 is as follows:

Location: Broad Acres, Zimmerman Farm, Rt 9, Greenrow: May 2

Remember that 18 DSVs is the threshold to begin a spray program for late blight

Date	LATE BLIGHT			EARLY BLIGHT
	Daily DSV	Total DSV	Spray Recs	Accumulated P days*
5/17	1	5	none	117
5/18 - 5/20	0	5	none	139
5/21 - 2/23	0	5	none	163
5/24 -5/28	0	5	none	196
5/29- 5/31	0	5	none	229
6/1-6/2	0	5	none	245
6/3-6/4	5	10	none	264
6/5- 6/6	0	10	none	282
6/6 -6/7	0	10	none	290
6/8- 6/11	0	10	10 days	324
6/12-6/13	2	12	10 days	341
6/14	0	12	10 days	350

* **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, 350 P-days have accumulated at the site. **We have exceeded the P-day threshold for early blight. If fields have not received a fungicide yet, an application is recommended at this time.**

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 or Quadris (Amistar) 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.

If **pink rot or leak** is a concern and no pink rot fungicide was applied at planting, consider applying one of the following when potatoes are nickel-sized and repeating 14 days later. Apply in as much water as possible (20-30 gal/A): Mefanoxam/chlorothalonil (Ridomil/Bravo or Flouranil) 2 lb/A, or Ridomil Gold/MZ 2.5 lb/A, or Ridomil Gold/Copper 2 lb/A.

For specific fungicide recommendations, see the 2007 Delaware Commercial Vegetable Production Recommendations Book.

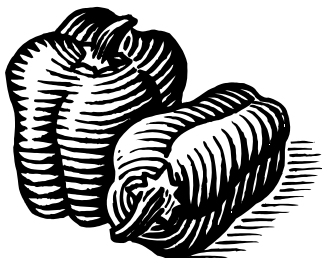
Cucurbits

Choanephora, also known as Choanephora wet rot or blossom end rot, is a disease which affects blossoms and young developing fruit. Infected female flowers may turn brown, 'mushy' and fall off prior to fruit set. Blossom infection can lead to fruit infection. Young fruit may turn a yellowish-brown with masses of dense, white fungal growth with black 'pinpoint' spores developing on infected fruit. Long periods of wet weather with excessive rainfall and high relative humidity favor the development and spread of Choanephora fruit rot. Unfortunately, control of Choanephora is difficult due to the constant development of new flowers and fruit, canopy production by the plant, and the ability of the fungus to survive saprophytically.

Pepper

Phytophthora blight

For control of the crown rot phase of blight: Apply 1 pt Ridomil Gold 4E/A or 1 qt Ultra Flourish 2E/A (mefenoxam, 4). Apply broadcast prior to planting or in a 12 to 16-inch band over the row before or after transplanting. **Make two additional post-planting**, directed applications with 1 pint Ridomil Gold 4E or 1 qt Ultra Flourish 2E per acre to 6 to 10 inches of soil on either side of the plants at 30-day intervals. Use formula in the "Calibration for Changing from Broadcast to Band Application" section of Calibrating Granular Application Equipment to determine amount of Ridomil Gold needed per acre when band applications are made. When using polyethylene mulch, apply Ridomil Gold 4E at the above rates and timing by injection through the trickle irrigation system. Dilute Ridomil Gold 4E prior to injecting to prevent damage to injector pump.



Agronomic Crops

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

Alfalfa

Continue to scout all fields on a weekly basis for potato leafhopper adults and nymphs. 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. Remember, leafhoppers can quickly damage regrowth, so be sure to routinely sample fields within a week of cutting as well.

Soybeans

Significant grasshopper population pressure continues to be found in both no-till and conventional soybean fields. As barley is harvested and soybeans are planted, these fields will be especially susceptible to attack and grasshopper feeding can often cause stand loss. If stand reductions are occurring from plant emergence to the second trifoliolate, a treatment should be applied. Although no precise thresholds are available, a treatment maybe needed if you find one grasshopper per sweep and 30% defoliation prebloom. Numerous products are labeled for grasshopper control including a number of pyrethroids, dimethoate, Furadan, Lorsban, and Sevin XLR. Unfortunately, the dry weather this spring has resulted in significant populations. In many cases, multiple applications may be needed to achieve control. As a reminder, OP insecticides (like dimethoate or Lorsban) cannot be combined with SU/ALS herbicides (like Harmony GT). Since other materials may also state restrictions regarding combinations of insecticide and herbicides, you should be sure to check all labels carefully before combining insecticides and herbicides. Combinations of certain formulations, especially emulsifiable concentrates (ECs), can cause significant phytotoxicity.

In addition to grasshoppers, we are starting to see spider mites on seedling stage soybeans. Unfortunately, the only products available for control are still dimethoate and Lorsban so early detection will be critical.

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

Soybean Rust Update

Conditions are becoming more favorable for rust development in Florida and parts of southern Georgia. Humidity levels are rising and the chance of late day thundershowers on a daily basis will favor infection of kudzu. Parts of AL and MS are extremely dry and not favorable for infection. The amount of rust in the affected areas is still low. On the local level we are beginning to monitor our sentinel plots on a regular basis. There are three sites in Sussex County, two in Kent County and two in New Castle. Additional fields may be scouted on an as-needed basis. Domark, Stratego, Tilt and Laredo fungicides have all received full national section 3 labels for use on soybean rust. Several new section 18 fungicides including Alto and Quadris Xtra, have been EPA approved and we are awaiting state labels.

Irrigated Wheat - Information Sought

Major differences are evident in irrigated versus non-irrigated wheat this year. There is little research in the Mid-Atlantic on the advantages of irrigating wheat and University of Delaware agronomy specialists and agents are interested in collecting information on irrigation effects as wheat is harvested in the coming weeks.

If you, or the farmers that you work with, have irrigated wheat fields and would be willing to share information on the number of irrigations, timing of irrigations, amount of water put on, and yields in irrigated areas and adjacent non-irrigated areas, please contact Dr. Cory Whaley, Agricultural Agent in Sussex County, Gordon Johnson, Agricultural Agent in Kent County, or Dr. Richard Taylor, UD agronomy specialist at the phone numbers or emails listed below

Cory Whaley (302) 856-2585 ext. 594
whaley@udel.edu

Gordon Johnson (302) 730-4000
gcjohn@udel.edu

Richard Taylor (302) 831-1383
rtaylor@udel.edu

Uneven Corn Stands and Yield Potential -
Richard Taylor, Extension Agronomy Specialist;
rtaylor@udel.edu

Now that many corn fields have entered the rapid growth phase that follows side-dressed nitrogen, variability in corn stands will not be as easy to see as it was earlier this season. However, in walking a number of fields over the past several weeks stand variability has been striking. Weak areas in fields, skipped rows, uneven or poor emergence, crusting, and pest problems have all contributed to poor stands in some fields. When growers estimate yield potential for their marketing plans, they should take note of the variability in their fields as this could significantly reduce their expected yields. Bob Nielsen, Extension Corn Specialist with Purdue University has an excellent slide show and fact sheet on this very issue. Dr. Nielsen gives ways to calculate the expected yield loss based on work conducted by him in Indiana. The information can be found at the following web site:
<http://www.agry.purdue.edu/ext/corn/cornguy.html>

You can find the slide presentation titled "Stand Establishment Issues in Corn" under the heading 'Extension education in corn management systems.' The printer friendly fact sheet "Stand Establishment Variability in Corn (AGRY-94-02)" is under 'Extension Publications'.

Hay Harvesting and Cutting Height - *Richard Taylor, Extension Agronomy Specialist;*
rtaylor@udel.edu

Over the past several years, a number of producers have complained of poor survival of orchardgrass stands as well as other grass hay crops. At our last Maryland-Delaware Forage Council meeting, I learned from Dr. Les Vough, retired Extension Forage Specialist from University of Maryland, that there was some concern that this might be related to the use of

discbine mower conditioners that have allowed producers to mow fields quite close. Although research is not available to say directly whether very close mowing (what some might call scalping) causes stand losses in grass hay fields, I want to caution hay producers to avoid cutting hay fields, in particular orchard grass, too close. Certainly when I studied forages in school (too many years ago to mention), I was taught that certain grasses store their reserve carbohydrates (food for recovery from cutting) in the lower stems. Mowing at ½ to 1 inch to increase the hay yield from a field, in my opinion, will significantly damage the ability of grasses that store energy reserves in the lower stems to recover and survive. Multiple close mowing over a growing season or two could significantly reduce stands. Since orchardgrass is often stressed by the heat, humidity, and dry weather (especially on sandy soils) on Delmarva, the added stress of close mowing may be contributing to the loss of stands we've been seeing the past few years.

If you do cut hay with a discbine, consider raising the cutting height to 3 or 4 inches on grasses like orchardgrass. Grasses with many basal leaves or a vigorous rhizome or stolon system can be mowed a little closer but always try to leave at least some green material or at least basal growing buds to allow the grass to recover from mowing. The longer it takes the crop to recover and reestablish a canopy of leaves the more of its energy reserves it will have to use and the more opportunity there will be for weeds to germinate and establish a foothold in the field. Weed competition against the established grass can be as serious a risk for stand loss as close mowing of fields.

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

June USDA Supply/Demand Report Summary
Beginning stocks for U.S. corn are now forecast at 987 million bushels, compared to 947 million bushels a month ago. The projected increase in beginning corn stocks is credited for the 50 million bushel increase in ending corn stocks

projected for the 07/08 marketing year. All of the other supply and demand categories were left unchanged from the May report, although a cut in U.S. exports was expected. The cut is likely to be made next month. The season average farm price for the 07/08 marketing year was left unchanged, ranging from \$3.10 to \$3.70 per bushel.

World ending stocks for corn are now forecast at 91.8 million metric tons, as compared to 84.68 mmt a year ago.

Beginning stocks for U.S. soybeans were unchanged from a month ago forecast at 610 million bushels. All of the supply and demand categories were unchanged from a month ago, leaving ending stocks at 320 million bushels for the 07/08 marketing year. The season average farm price was increased on both ends of the price range, now forecast at \$6.65 to \$7.65 per bushel. The increase in the average price that farmers are expected to receive for the 07/08 marketing year is due primarily to the speculative interest currently driving futures prices.

World ending stocks for soybeans are projected at 54 mmt for the 07/08 marketing year, nearly a 10 mmt decrease from the previous marketing year.

Beginning stocks for U.S. wheat are now placed at 417 million bushels, a 5 million bushel increase from the May report. Ending stocks for the '07/08 marketing year are now forecast at 443 million bushels, a 26 million bushel decrease from the previous month. The production estimate for all U.S. wheat was reduced 6 million bushels from the May report due to a slight increase in the harvested acreage estimate and a 0.2 of a bushel decrease in the all wheat yield estimate. The only other adjustment made to the all wheat supply and demand estimate was a 25 million bushel increase in the projection for U.S. wheat exports. The season average farm price was increased on both ends of the price range and is now placed at \$4.50 to \$5.10 per bushel for the '07/'08 marketing year.

World ending stocks for wheat are projected at 112.03 mmt, compared to 121.95 mmt from last year.

Market Summary

The corn, soybean, and wheat markets are currently operating under extreme volatile conditions for several reasons. The weather gets much of the attention, with commodity traders in Chicago glued to the 6 - 10 day and other forecasts on a daily basis. Drought fears in parts of the Corn Belt are looming. This adds to the uncertainty that is fueling the volatility in these markets. Commodity speculators, or what's called the non-commercials, get the rest of the attention and with all due respect. Volatility is good in commodity markets because it takes volatility to create pricing opportunities. However, volatility is extremely difficult to manage and is only compounded by the production uncertainty, fund buying, speculative interest, and what seems to be an insurmountable task of making good grain marketing decisions. In times like the present it is very easy to get on the wrong side of the market. Wheat, for example, reached an 11 year high this week, with July '07 currently trading at \$5.89 per bushel; Dec '07 corn futures are currently trading at \$4.15 per bushel; and Nov '07 soybean futures are trading at \$8.59 per bushel. Due to the competition for acres for next year's planting, production uncertainty due to the weather, and the fact that commodity speculators always take prices higher or lower than they should, the extreme volatility in these markets isn't over yet. The remaining question then is will we be able to take advantage of the pricing opportunities that have been created by these volatile times? For technical assistance on making grain marketing decisions contact Carl L. German, Extension Crops Marketing Specialist

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of June 7 to June 13, 2007

Readings Taken from Midnight to Midnight

Rainfall:

0.10 inch: June 11
 0.03 inch: June 12
 0.01 inch: June 13

Air Temperature:

Highs Ranged from 95°F on June 8 to 75°F on June 13.
 Lows Ranged from 68°F on June 8 to 52°F on June 7.

Soil Temperature:

77°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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