



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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Soybean Rust Update

Soybean rust was found in the soybean sentinel plot in Citra, Florida (Marion County) on June 29. This is the first positive for a sentinel site. It was last examined last June 23. This plot was located a couple of miles east of the positive kudzu plot. Leon County, Florida also had a positive find on kudzu this week. The site was near the capitol city Tallahassee; it looks like things might be heating up down south.

If any infections happened from Tropical Storm Arlene they should be appearing very soon. This may be happening now, as soybean rust has been found in southern Alabama for the first time this year. The disease was detected in plants in soybean sentinel plots growing at the Gulf Coast Research and Extension Center in Fairhope. Fairhope is in Baldwin County on the east side of Mobile Bay. This is the second sentinel plot that has been infected.

Keep up to date by visiting the websites.

<http://www.sbrusa.net/> ;

<http://www.ces.ncsu.edu/depts/pp/soybeanrust/>

<http://www.stopsoybeanrust.com> and others.

We have added the Syngenta soybean rust site to our list of links at our resources page

<http://ag.udel.edu/extension/Information/pdc/soybeanrustResources.htm>

Bob Mulrooney

Vegetables

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

Melons

Continue to scout all melons for aphids, cucumber beetles, and spider mites. Aphid populations continue to increase again in a few fields. Economic numbers of spider mites are starting to be found. The threshold for mites is 20-30% infested crowns with 1-2 mites per leaf. If spider mite populations are high at the time of treatment, 2 sprays spaced 5 days apart may be needed. Acramite (only one application per season), Agri-Mek, Capture (bifenthrin), Danitol, Oberon and Kelthane are labeled on melons for mite control. In order to avoid the development of resistance, be sure to rotate materials.

Peppers

In fields with small fruit, a corn borer treatment is needed. In areas where corn borers are being caught in local traps and pepper fruit is ¼ inch or more in diameter fields should be sprayed on a 7 day schedule for corn borer control. Be sure to check local moth catches in your area at <http://www.udel.edu/IPM/traps/latestblt.html>. You will also need to consider a treatment for pepper maggot.

Potatoes

Continue to scout fields for Colorado potato beetle (CPB), leafhoppers and aphids. Adult leafhopper populations significantly increased

and you can expect to see an increase in nymphs this week. As a general guideline, controls should be applied if you find ½ to one adult per sweep or one nymph per every 10 leaves. We continue to find green peach aphids; however, we have not detected economic levels. Controls will be needed 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.

Snap Beans

Continue to scout all seedling stage fields for leafhopper and thrips activity. We are seeing an increase in both insects on snap beans. At this time, 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

(<http://www.udel.edu/IPM/traps/latestblt.html> and

<http://www.udel.edu/IPM/thresh/snapbeanecbtfresh.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.

Lannate, Asana, Capture (bifenthrin), Warrior or Mustang are labeled for European corn borer on snap beans.

Sweet Corn

The first silk sprays will be needed for corn earworm as soon as ear shanks are visible. Be sure to check trap catches for the current spray schedule since trap catches quickly change. Trap catches are generally updated on Monday and Thursday nights.

(<http://www.udel.edu/IPM/traps/latestblt.html> ; <http://www.udel.edu/IPM/thresh/silkspraythresh.html>).

You can also call the Crop Pest Hotline for current trap catches (in state: 1-800-345-7544; out of state: 1-302-831-8851). We are also starting to see the first fall armyworm larvae in

whorl stage sweet corn. A treatment should be considered when 12-15% of the plants are infested. Since fall armyworm feed deep in the whorls, sprays should be directed into the whorls and multiple applications are often needed to achieve control.



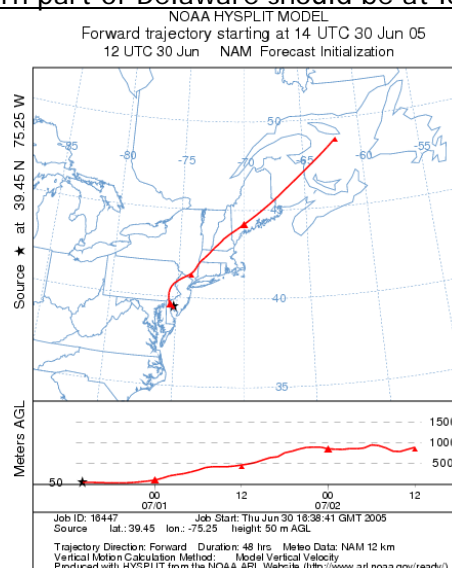
Vegetable Crop Diseases – *Bob Mulrooney, Extension Plant Pathologist*; bobmul@udel.edu

Cucurbit Downy Mildew

Downy mildew on cucumbers has not been seen in Delaware so far. Three sites in Cumberland County, NJ have downy mildew identified so far. The latest was Wednesday, June 29. Fortunately for us here in DE and MD the wind patterns have been taking the spores east across NJ and north and out into the ocean. Keep a careful watch on the forecasting website for updates.

<http://www.ces.ncsu.edu/depts/pp/cucurbit/forecasts/c050630cumberland.php>

There is a strongly moderate risk to cucurbits in northern Delaware and Eastern PA on Thursday (6/30) and a high risk to cucurbits in northern Delaware and Eastern PA on Friday (7/1). There is low risk on Saturday to Monday due to clear skies. If this forecast is accurate and we get the showers and cloud cover predicted, pumpkins and other cucurbits in northern DE may be at risk if spores are transported in this weather pattern. The southern part of Delaware should be at low risk.



Sources of the spores in Georgia are not forecast to move this far north at this time, but keep posted by visiting the forecast site above.

Pickles

With the thundershowers and recent rains in the pickle growing areas, growers are spraying for **Phytophthora fruit rot** as the fruit enlarge. Sprays when fruit are 1 inch and 3 inches have been recommended by researchers in Michigan. Acrobat plus copper, Gavel plus copper, Ridomil Gold/Bravo, Flouranil, or Ridomil Gold/Copper are recommended. Acrobat and Gavel are not systemic so coverage of the fruit is important, so apply in enough water to cover the fruit. Good coverage will also improve control for Ridomil and Flouranil as well. Remember that rotation and water management are also critical in controlling or minimizing losses from Phytophthora fruit rot. The worst case scenarios happen when we get those 1-3 inch downpours that float the pickles. Rapid draining of the fields is important to prevent infections.

Peas

As pea harvest draws to a close here is a brief summary of **pea diseases** that were identified this season. Several fields here and in New Jersey had downy mildew caused by the fungus *Peronospora viciae*. The early wet weather was very favorable for this disease but as the weather changed the disease slowed and may have had little impact on yield fortunately. Bacterial leaf blight was observed as well. This was not yield limiting as far as we can tell and the change in weather prevented any losses. Some Ascochyta leaf blight was also diagnosed and was a minor problem as well. As Ed Kee mentioned last week the major limiting diseases in peas in our area are the root rots. Rotation is very important as well as reducing compaction and selecting varieties with the best resistance or tolerance that you can find.

Peppers

Be sure to keep up sprays for **bacterial leaf spot** during this unsettled weather. Bacterial diseases are favored by the wind driven rains that spread it and the leaf wetness that is needed for infection. If the disease is present or anticipated do not work in the fields when the plants are wet to reduce moving it around. Applications of copper fungicides plus 1.5 lbs of

maneb 80WP can help prevent infections or limit spread if it occurs.

Agronomic Crops

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

Soybeans

Small grasshopper nymphs continue to be found in full season no-till fields as well as in recently planted barley fields. The treatment threshold for grasshoppers is 1 per sweep and 30% defoliation. Multiple applications are often needed for grasshopper control. Spider mite populations still remain low. A treatment is recommended if you find 20-30 mites per leaflet or 10% of plants with 1/3 or more leaf area damaged. Although edge treatments can work in the right situation, it will be important to scout the entire field before deciding if an edge treatment is enough. At this point, the only materials available for mite control in soybeans are dimethoate and Lorsban. However, we are again submitting a Section 18 Specific Exemption request for Acramite 4SC for spider mite control in soybeans. We will let you know as soon as we hear from EPA. We can also find thrips and leafhoppers. The treatment threshold for thrips is 8 per leaflet with plant growth that is being held back. The treatment threshold for leafhoppers is 4 per sweep in drought stressed fields and 8 per sweep in non-stressed fields. As a reminder, OP insecticides (like dimethoate or Lorsban) can not be combined with SU/ALS herbicides (like Harmony GT).

Valent Corporation has informed us that EPA has approved the use of Orthene 90S on soybeans. This is now a federal label and it has been approved by the states of Delaware and Maryland. Please see the label for insects controlled and labeled rates.



Alfalfa

Continue to sample fields within a week of cutting for 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.

Announcements

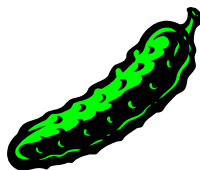
Twilight Pickle Growers Meeting

Tuesday July 12, 2005 6:00 – 8:00 p.m.
Russ Stevens' Farm
Waddells Corner Rd. (Rt. 331), Hurlock, MD

Pickle producers, processors, seedsmen and consultants are invited to come view our Pickle Variety Trial at Russ Stevens' Farm in Hurlock, MD. The trial includes eleven varieties and was planted on May 31.

Extension Plant Pathologists Bob Mulrooney (UD) and Kate Everts (UMD & UD) will be present to discuss cucumber disease control strategies, as well as other plant disease issues on any other crops.

Light refreshments will be served. No registration is necessary. For more information or directions call Ed Kee or Emmalea Ernest at (302) 856-7303.



Weather Summary

<http://www.rec.udel.edu/TopLevel/Weather.htm>

Week of June 23 to June 29, 2005

Readings Taken from Midnight to Midnight

Rainfall:

0.01 inches: June 23
0.99 inches: June 27
0.02 inches: June 28
0.26 inches: June 29

Air Temperature:

Highs Ranged from 90°F on June 28 to 77°F on June 27.

Lows Ranged from 72°F on June 28 and June 29 to 60°F on June 24.

Soil Temperature:

82°F average.

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

Web Address for the U of D Research & Education Center: <http://www.rec.udel.edu>

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Potato Disease Advisory #13 - June 30, 2005, Bob Mulrooney, Extension Plant Pathologist

Late Blight Advisory (18 DSV's Exceeded)

Disease Severity Value (DSV) Accumulation as of June 29, 2005 is as follows:

Location: Joe Jackewicz Farm, Magnolia, DE. Greenrow: May 4, 2005

Date	Daily DSV	Total DSV	Spray Recommendation
5/4- 5/18	0	1	none
5/20-5/21	6	7	none
5/22	2	9	none
5/24- 5/26	7	16	none
5/27 - 6/1	0	16	none
6/2	1	17	none
6/2- 6/4	11	28	-
6/4	2	30	5- day
6/5	2	32	5-day
6/6	2	34	5-day
6/8	1	35	5-day
6/9	2	37	5-day
6/10	2	39	5-day
6/11- 6/26	0	39	10-day
6/26-6/28	9	48	7 -day
6/28-6/29	3	51	7-day

P-day value is now 418, which is used to predict early blight and the need for protective fungicides.

Now that the P-day threshold is exceeded early blight sprays are recommended.

The rain event from late Sunday through early Tuesday morning was very favorable for late blight. Spray schedules should be tightened to 7-days through this hot, muggy weather, for both late blight and early blight control.