



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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Vegetable Crops

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

Cabbage

Continue to scout all fields for harlequin bugs, beet armyworm, fall armyworm, diamondback and cabbage looper larvae.

Lima Beans

Continue to scout all fields for lygus bugs, stinkbugs, corn earworm, soybean loopers and beet armyworm.

Peppers

Be sure to maintain a 5-7-day spray schedule for corn borer, corn earworm, beet armyworm and fall armyworm control. You should also watch for flares in aphid populations.

Snap Beans

All fresh market and processing snap beans will need to be sprayed from the bud stage through harvest for corn borer and corn earworm control.

Spinach

Continue to sample for webworm and beet armyworm larvae. Both can be found in fields and controls should be applied when worms are small and before webbing occurs.

Sweet Corn

Our last trap catches for the season were

collected on September 15. If you have questions about spray intervals, please call Joanne Whalen at 302-831-1303 for more information.

Zeal Miticide Label Expanded - *Joanne Whalen, Extension IPM Specialist*; jwhalen@udel.edu

The label for Zeal Miticide (Valent USA Corporation) has been expanded to include use on caneberries, the entire cucurbit crop group, low growing berries, pepper, and eggplant. Please refer to the following attachment for this supplemental label (<http://www.cdms.net/LDat/ld7DK000.pdf>).

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

Lima bean downy mildew was found by a CCA and confirmed on Wednesday from a field of 'C-elite' near Galena, MD. Growers need to be scouting carefully and applying fungicides as needed. If seen in the field apply either Ridomil Gold/Copper 2.0 lbs/A or ProPhyt (3.0 pts/A). See the [2011 Delaware Commercial Vegetable Production Recommendations](#) for other fungicide choices as well as [last week's WCU](#) for more detailed information.

Basil downy mildew was found in New Castle County this week. Any specialty crops growers might want to protect basil with one of the

phosphorus acid products, such a ProPhyt, at this time.

Powdery and downy mildew are widespread in cucurbits especially pumpkins and winter squash at this time. Maintain fungicide programs until fruit develop fully.

Unfortunately Phytophthora fruit rot is very prevalent on a number of cucurbits especially pumpkin at this time. The excessive rainfall just made a bad problem worse. A few growers have asked about dipping fruit in a 5-10% bleach solution or using Zeritol to prevent fruit rot. My experience has been that is not effective if the fruit are infected in the field. You may get reduced spread in a bin but it will not control Phytophthora fruit rot.

There were a few reports of late blight in New York and Connecticut this week, but nothing in the Mid-Atlantic to worry tomato growers so far. To track the progress of late blight in the US you can go to <http://usablight.org>

Delayed Sets in Lima Beans - *Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu*

In talking with growers and observing our research plots, 2011 was another challenging year for early lima beans. May planted lima beans harvested in late July and in August did produce a partial set with yields ranging from 500-2000 lbs depending on field and location. There was enough cool weather in the second half of June to allow for some set, but July heat did not allow for continued set, even in irrigated conditions

Early June planted lima beans have been a mixed bag, again depending on field and location. Some fields have a bad split set and all the associated problems of when to harvest. However, many early June planted fields dropped all their early sets due to the mid-summer heat, retaining pods only after the heat abated, thus delaying harvest 2-3 weeks (from expected late August to mid September). These fields are yielding much better (over 3000 lbs irrigated). Fields planted later in June and in July did lose some set due to wind damage

during the hurricane but have recovered well and the impact on yield may be minimal, although harvest will be pushed later in some fields.

On another note, the regrowth cropping lima bean trial on our research farm, initially harvested in late July, has a good set and will make a second crop long before frost. Observations from other growers experimenting with regrowth cropping are similar, with good regrowth and set where wheel traffic at harvest was not severe.

Agronomic Crops

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

Soybeans

As full season and double crop beans mature, I continue to get questions regarding the need to treat fields for corn earworm, defoliators and stinkbugs. As my colleague Ames Herbert from Virginia Tech indicated in his Pest Advisory last week, if economic populations levels of corn earworm are present, late planted soybean fields that still have susceptible pods (earlier than R7 growth stage) would still be at risk from pod damage. If economic levels of defoliators (i.e. worm defoliators including soybean looper, beet armyworm and green cloverworm) are present, you will also need to consider the maturity of the crop as well as the health of the leaf canopy to make a treatment decision. In an article printed in 2010 regarding defoliation from soybean loopers, entomologists and agronomists in the south suggested that if economic levels are present, "fields will need to be protected as long as the pods are still green and until the lower leaves are just beginning to yellow. This should correspond, more or less, with the R6.5 stage (10 days after R6.0 = full green seed). If leaves are beginning to yellow up the stem, not from drought but from the maturity process, and there are any pods on the plant that are beginning to yellow, the field should be safe, that is no need to treat. Next you have to determine the health of the leaf canopy: is it robust, average, or thin. Each can tolerate different amounts of leaf loss before reducing yield potential. Robust fields (mid chest or

higher) can tolerate a lot of feeding. Average fields (upper thigh to mid chest) can tolerate normal amounts of feeding. Thin canopy fields (mid thigh or below) cannot tolerate additional leaf loss. Also in this canopy assessment, you need to take a stab at estimating the current percent defoliation. This is not an exact measure, but your best estimate looking over the entire canopy top to bottom. The eyes tend to focus on those badly defoliated top leaves. Look beyond those and try to come up with an overall average.” When it comes to stinkbugs, you should continue scouting until the latest planted fields reach the R7 growth stage (a few studies in the south even say through the R-7 stage) when beans should no longer be susceptible to stink bug feeding.

In past newsletters, I have also written about the potential for grasshoppers and bean leaf beetles to feed on pods. Although bean leaf beetle populations have not been as high as past seasons, there are still some hot spots of activity so you will need to examine pods for feeding damage. During the last wet fall, we did see significant pod scarring late in the season that resulted in moldy beans. The follow link from Ohio State University provides good information on when treatment is needed for pod-feeding. In general, they state that a “treatment is usually indicated when pod feeding reaches 10-15% and beetles are still present and actively feeding. In fields where the pods have started turning yellow and brown, the adults will be leaving in search of greener pastures”.

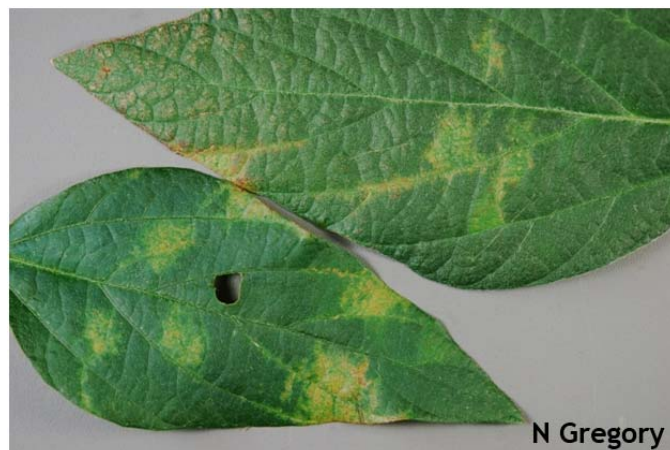
(<http://corn.osu.edu/c.o.r.n.-newsletter#1>).

If you do need to treat, be sure to check the label for the pre-harvest interval (time needed between last application and harvest) as well as other restrictions, including rotational restrictions.

Soybean Vein Necrosis Virus Confirmed in DE, MD and VA - *Bob Mulrooney, Extension Plant Pathologist*; bobmul@udel.edu

Soybean vein necrosis virus was confirmed this week by Dr. Yannis Tzanetakakis, Department of Plant Pathology at the University of Arkansas. So the symptoms that we have been seeing and

sharing with concerned growers are due to this new virus disease. Although I say it is new, some of the first symptoms were seen in 2008 in Tennessee and Arkansas. The subsequent work by the researchers at Arkansas discovered the new virus. They were able to report that this new virus disease, soybean vein necrosis virus (SVNV), belongs to a group of thrips-transmitted viruses. This group called the tospoviruses includes several that we see in greenhouse production in the region and in the field occasionally, namely tomato spotted wilt virus and impatiens necrotic spot virus.



Early symptoms of soybean vein necrosis virus (SVNV) from DE

This group of viruses are acquired by thrips feeding on infected plants and once acquired then the virus can be transmitted by the thrips for the rest of its life. We call this a persistent virus in the vector and this may allow us to control SVNV by controlling thrips. This is very preliminary and much work is being done in the Midwest to identify the thrips vectors and possible other hosts of the virus that may harbor

it and allow thrips feeding to move it to soybeans. It is too early to know if that strategy will work practically. The question we all have is: will it reduce yield here or affect seed quality? So far I have not seen enough leaf loss to imply that some yield effects are possible. But we have some time to go before maturity, so the jury is still out on the yield effects here in the Mid-Atlantic. Fortunately this group of viruses is not known to be seed-transmitted and that is being addressed by these researchers.

The researchers from Arkansas have noted that often a single virus infection may not have much of an effect but multiple infections with other viruses may increase yield loss potential. We have occasional outbreaks of bean pod mottle virus and we have seen soybean mosaic virus and peanut stunt virus in soybeans in the region, so the potential is here for multiple infections. We

do not have much information about the extent of other virus diseases in soybeans.

The other avenue of control is identifying sources of resistance and evaluating current soybean varieties for resistance. Ideally identifying sources of genetic resistance that are incorporated into good varieties will be best control strategy. That work is ongoing as well. It is too early to be making recommendations but growers need to be aware of this disease and know that work is being conducted to answer some of these pressing questions.

Also, do not ignore soybean cyst nematode. Soil sampling after harvest before any fall tillage is recommended for fields to be planted next season to soybeans following this year's crop. Do not plant SCN susceptible varieties without soil testing first. Soil sample bags are available from the county Extension offices for \$10/ sample bag.

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

U.S. Supply and Demand Summary

	Million Bushels								
	Corn			Soybeans			Wheat		
Crop Year	10-11	11-12	11-12	10-11	11-12	11-12	10-11	11-12	11-12
Report Date	09/12	08/11	09/12	09/12	08/11	09/12	09/12	08/11	09/12
Carryin	1,708	940	920	151	230	225	976	861	861
Production	12,447	12,914	12,497	3,329	3,056	3,085	2,208	2,077	2,077
Imports	30	20	15	15	15	15	97	100	110
Tot Supply	14,185	13,874	13,432	3,495	3,301	3,325	3,281	3,037	3,047
Feed	5,000	4,900	4,700				133	240	240
Crush/mill*	1,380	1,380	1,380	1,650	1,635	1,635	926	945	940
Ethanol Prod.	5,020	5,100	5,000						
Seed/other	30	30	30	125	111	111	73	82	82
Exports	1,835	1,750	1,650	1,495	1,400	1,415	1,289	1,100	1,025
Total	13,265	13,160	12,760	3,270	3,146	3,161	2,420	2,367	2,287
Carryout	920	714	672	225	155	165	861	671	761
Stocks/Use Rat	6.90%	5.40%	5.30%	6.90%	4.90%	5.20%	35.60%	28.30%	33.30%
Avg Price	5.2	6.7	7	\$11.35	\$13.50	\$13.65	\$5.70	\$7.60	\$7.85

*Excludes corn for ethanol

USDA's September supply and demand report was viewed as bearish for soybeans and wheat, and neutral to bearish for corn. Soybean ending stocks of 165 million bushels were higher than expected, with wheat ending stocks of 761 million bushels, above the high end of pre-report estimates. Ending stocks-to-use for wheat are now computed at 33.3%. Corn ending stocks were reduced to 672 million bushels, 41 million bushels less than last month, which is slightly bullish. However, corn ending stocks were above pre-

report estimates as demand fell by 400 million bushels. The demand estimates for U.S. corn were reduced 200 million bushels for feed, 100 million bushels for ethanol, and 100 million bushels for exports. The reduced total demand estimate cast a negative light on the September report.

World Supply and Demand Summary

	Million Metric Tons								
	Corn			Soybeans			Wheat		
Crop Year	10-11	11-12	11-12	10-11	11-12	11-12	10-11	11-12	11-12
Report Date	09/12	08/11	09/12	09/12	08/11	09/12	09/12	08/11	09/12
Carryin	143.9	122.93	124.3	59.34	68.42	68.82	199.87	191.74	193.34
Production	823.97	860.52	854.67	264.12	257.47	258.99	648.2	672.09	678.12
Tot Supply	967.87	983.45	978.97	323.46	325.89	327.81	848.07	863.83	871.46
Feed	495	510.09	505.11				115	127.9	130.1
Crush				222.3	232.11	232.09			
Other	348.56	358.83	356.47	30.32	30.21	30.15	539.73	547.06	546.76
Total Use	843.56	868.92	861.58	252.62	262.32	262.24	654.73	674.96	676.86
End Carryout	124.3	114.53	117.39	68.82	60.95	62.55	193.34	188.87	194.59
Stocks/Use Rat	14.70%	13.20%	13.60%	27.20%	23.20%	23.90%	29.50%	28.00%	28.70%

World ending stocks for all three grains were increased for both 2010-2011 and 2011-2012. This eases some of the concern in corn, as demand was reduced more the 7 million metric tons and South American production was increased 5.5 MMT. Wheat ending stocks grew to almost 195 MMT putting world ending stocks-to-use at 28.7%. World soybean ending stocks increased to 62.55 MMT with ending stocks-to-use just short of 24%.

Market Strategy

The negative tone of this report could quickly be erased depending upon whether traders believe the production estimates for 2011 U.S. corn and soybeans. Historically, short crops have a tendency to get shorter as harvest progresses. Local cash prices and basis levels remain attractive for making harvest sales.

Commodity Markets At Large

The next item of interest concerning the commodity markets will be the September 30 Grain Stocks in all Positions report. That report is expected to shed light on the extent of the demand reduction that is taking place in U.S. corn. USDA lowered U.S. corn use by 400 million bushels in their September 12 supply and demand report. There are some skeptics concerning whether USDA's projections for drops in domestic corn and export use were too large.

The grain stocks report may help to shed some light on that concern.

Then there is the matter of 2011 U.S. corn and soybean production. Two things could happen concerning previous production estimates. First, USDA could make further adjustments to planted acres. Second, yield projections can be adjusted further. Any further adjustments to planted acres are likely to be down while yield adjustments could be up or down. Those pending adjustments could sway these markets higher or lower.

Along the line of 2012 production concerns is the possibility of an early frost occurring in the Northern tier of the Corn Belt. Due to the lagging development concerning crop maturity in that region of the country, a killing frost occurring within the current week would be detrimental to corn and soybean yields. Reports of a possible frost were rumored into the market on Tuesday, expected to materialize on Thursday if the frost event occurs.

Outside market forces continue to influence the commodity markets. Recent strengthening in the value of the dollar is detrimental to U.S. exports. The value of the dollar may have made a turn recently which could mean further strength occurring in the weeks ahead. Energy prices and the Dow are also playing a role in

providing strength or weakness to prices. Slackening energy prices are negative while a stronger Dow is positive to prices.

Market Strategy

Due to the tight U.S. corn supply, corn prices are expected to remain firm going into the '12/'13 marketing year. Domestically, the stocks-to-use ratio for U.S. corn is now calculated at 5.3%, as compared to 5.4% a month ago and 6.9% last year. The corn market will lend support to the soybean and wheat markets through the fall and winter. Harvest pressure on commodity prices will build as harvest progresses. Downed corn, besides causing harvest delays, is playing havoc with advancing sales decisions, locally. Due to the downed corn factor, making harvest sales off the combine makes more sense than making additional forward cash sales. At the same time, with corn and soybean harvest prices at historically high levels it is a good idea to make those sales frequently and heavily. Currently, Dec '11 corn futures are trading at \$7.24; Nov '11 soybeans at \$13.89; and July '12 SRW wheat at \$7.60 per bushel.

Announcements

2011 Harvest Festival at Delaware Agricultural Museum & Village

Saturday, September 24 10:00 a.m. – 3:00 p.m.
 Delaware Agricultural Museum & Village
 866 North DuPont Highway, Dover, DE

Delaware residents and visitors are invited to come and experience the 2011 Harvest Festival, a free family-oriented event about local agriculture.

The Harvest Festival is driven by USDA's "Know Your Farmer, Know Your Food" initiative which supports local farmers, strengthens rural communities, promotes healthy eating, and protects natural resources. According to Robin Talley, acting State Executive Director, with the USDA Farm Service Agency, there is a gap between many residents and their local ag community. "We hope that this event will help Delawareans understand where their food comes from and the importance of their local farmer and agriculture."

Visitors can enjoy a petting zoo, interactive agricultural demonstrations, live music, and most

importantly local, farm-fresh food. The event is free and parking is free.

The Harvest Festival is sponsored by USDA in partnership with the Delaware Department of Agriculture, Delaware State University & University of Delaware Cooperative Extension, Delaware FFA, Kent Conservation District, and Fruit and Vegetable Growers Association of Delaware.

This is the second year for the Harvest Festival. Last year, the event was a success with more than 500 attendees participating in the interactive demonstrations and displays. For more information, visit www.agriculturalmuseum.org and click on Calendar.

Weather Summary	
Carvel Research and Education Center Georgetown, DE	
Week of September 8 to September 14, 2011	
Readings Taken from Midnight to Midnight	
Rainfall:	
02.6 inch:	September 8
0.07 inch:	September 9
Air Temperature:	
Highs ranged from 87°F on September 14 to 76°F on September 8.	
Lows ranged from 70°F on September 8 to 58°F on September 13.	
Soil Temperature:	
77.2°F average	
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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