



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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September 10, 2010

Vegetable Crops

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

Cabbage

Continue to scout all fields for 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. Multiple sprays will be needed for worm control.

Peppers

Be sure to maintain a 5 to 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. You should also watch for beet armyworm and soybean loopers. In addition, the highest labeled rates may be needed if population pressure is heavy in your area.

Spinach

Garden webworm, Hawaiian beet webworms and beet armyworms 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. Controls need to be applied early when worms are small and before significant webbing occurs. Generally, at least 2 applications are needed to achieve control of webworms and beet armyworm.

Diseases of Cole Crops - *Bob Mulrooney, Extension Plant Pathologist; bobmul@udel.edu*

Downy mildew and Alternaria can be a problem in fall crops (cabbage, collards, broccoli, cauliflower, and kale). When the disease first appears, apply a fungicide every 7 to 10 days. Quadris, chlorothalonil, Cabrio, Endura (Alternaria only), Ridomil Gold Bravo, or Switch (Alternaria only) and Actigard (Downy mildew only) and Aliette (Downy mildew only) are labeled for control. For more information on control please see the [2010 Delaware Commercial Vegetable Production Recommendations](#).

September Vegetable Observations - *Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu*

Lima Beans

Lima bean harvest is fully underway across the region and the following are some observations in this challenging year. Late May, June, and some early July plantings lost the first set almost completely (heat induced blossom and small pod abortions). The second set is extremely variable

and in many fields, economic yields will depend on what happens with the third set. Growers have commented that they are letting fields advance well above the 10% white/dry seed level that is normal for harvest to allow the later set to fill. Some fields are being harvested at the 20-30% dry seed stage (coming from the earlier set). For harvest considerations, it is better to lose a set completely and harvest the later set than to have a bad split set.

There is still considerable dry land lima bean acreage and I am always amazed at how much drought that lima beans can stand without wilting or showing outward water stress. Plants may be smaller but they survive drought and heat very well. Unfortunately, even though lima beans can survive drought, pod set will be limited. Research has shown over and over again that irrigation is necessary to achieve high lima bean yields. In a year such as 2010 where excess heat is also an issue, pod set can be adversely affected, even under irrigation.

We should emphasize again that water is still the most important nutrient for high lima bean yields. In a research plot area where we were looking at residual effects of biofumigant crops and compost this year, we planted snap beans and lima beans in early June as test crops in a dry land situation. After several weeks of drought and heat the snap beans were wilting during the day and were stunted while the lima beans kept on going. To rescue the plots (so that we could get data), we installed drip irrigation between every 2 rows. The snap beans did recover somewhat but with permanently stunted plants, poor bean quality, and a severe split set. In contrast, the lima beans lost the first set but did put on a decent second set and had good plant health and plant size.

Snap Beans

Summer planted snap beans for September harvest are yielding much better than the summer harvested crops. We are seeing yields in the normal 4 ton/A or better range where there was adequate irrigation (compared to summer yields in the 1-2 ton range).

Pickle Cucumbers

Late crops of pickle cucumbers are variable, largely due to stand loss and inadequate water

in fields planted during summer high heat periods. In addition, downy mildew has hit a number of later fields adversely, even where fungicides were applied in a timely manner. Pickle harvest should be completed in the next 7-10 days.

Watermelons

I am amazed at how long some watermelon fields have produced this year where attention has been paid to vine health, nutrition, and water. This certainly is the year where you are able to evaluate the yield potential and longevity of main season varieties and effectiveness of pollenizers. On another note, watermelon fields with good weed control (morningglory in particular), had much better later yields.

Tomatoes

Tomatoes had a difficult year in 2010 with most fields having much shorter harvest periods due to the extra heat stress. This is especially evident where beds were allowed to dry out at any time during these stressful periods. Somewhat surprising also is the presence of more disease than would be expected in a dry year.

Agronomic Crops

[Agronomic Crop Insects](#) - Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu

Soybeans

We continue to hear reports of soybean loopers in full season and double crop fields. Defoliation can occur quickly so be sure to check all fields for this insect. Refer to [last week's WCU articles](#) from Delaware and Virginia for information on this insect pest.

There are also a number of other insects still present in double crop fields including stink bugs, bean leaf beetles, grasshoppers, and green cloverworms. The threshold of all may need to be reduced if a mixed population is present. As a reminder, both bean leaf beetles and grasshoppers will also feed on pods.

Small Grains

As you make plans to plant small grains, you need to remember that Hessian fly can still be a problem. Since the fly survives as puparia ("flax seeds") in wheat stubble through the summer, you should still consider this pest as you make plans to plant small grains. In our area, damage has been the result of spring infestations. Plants attacked in the spring have shortened and weakened stems that may eventually break just above the first or second node, causing plants to lodge near harvest. Warm fall weather conditions can extend fly emergence and egg-laying beyond the fly-free dates, but these dates should still be used as a guideline for planting. Since we rarely see plants stunted in the fall, we still feel that most of the damage we see is occurring from spring infestations. Plants attacked in the fall at the one-leaf stage may be killed outright. Wheat attacked later in the fall will be severely stunted, with the first tillers killed and plant growth delayed. Plants infested in the fall can easily be recognized by their darker than normal bluish coloration and leaves with unusually broad blades. Combinations of strategies are needed to reduce problems from Hessian fly:

- Be sure to completely plow under infested wheat stubble to prevent flies from emerging.
- Avoid planting wheat into last season's wheat stubble, especially if it was infested with Hessian fly.
- Avoid planting wheat next to last season's wheat fields - the most serious infestations can occur when wheat is early planted into wheat stubble or into fields next to wheat stubble.
- Eliminate volunteer wheat before planting to prevent early egg-laying.
- Do not use wheat as a fall cover crop near fields with infestations.
- When possible, plant after the fly-free date. (Oct 3 - New Castle County; Oct 8 - Kent County; Oct 10 - Sussex County).
- Plant resistant varieties. You should look for varieties that have resistance to Biotype L. You will need to check with your seed dealers to identify varieties that our adapted our area.

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

USDA Slashes Corn Yields, Hikes Soybean Yields Fri Sep 10, 2010

U.S. CROP PRODUCTION (Million Bushels) 2010-11

	Sept	Avg	High	Low	Aug	2009-10
Corn	13,160	13,199	13,410	12,880	13,365	13,110
Soybeans	3,483	3,406	3,500	3,354	3,433	3,359

U.S. AVERAGE YIELD (Bushels Per Acre) 2010-11

	Sept	Avg	High	Low	Aug	2009-10
Corn	162.5	163.1	165.9	160.0	165.0	164.7
Soybeans	44.7	43.8	44.9	43.0	44.0	44.0

U.S. ENDING STOCKS (Million Bushels) 2010-11

	Sept	Avg	High	Low	Aug
Corn	1,116	1,125	1,312	929	1,312
Soybeans	350	304	373	129	360
Wheat	902	914	995	830	952

U.S. ENDING STOCKS (Million Bushels) 2009-10

	Sept	Avg	High	Low	Aug	2008-09
Corn	1,386	1,412	1,476	1,350	1,426	1,673
Soybeans	150	151	171	125	160	138

WORLD ENDING STOCKS (Million Metric Tons)

	2010-11		2009-10	
	Sept	Aug	Sept	Aug
Wheat	177.79	174.76	195.97	193.97
Coarse Grains	166.76	172.04	189.36	187.86
Corn	135.56	139.20	138.99	139.03
Soybeans	63.61	64.73	62.85	63.50

WORLD PRODUCTION (Million Metric Tons)

	2010-11		2009-10	
	Sept	Aug	Sept	Aug
Canada wheat	22.5	20.5	26.5	26.5
Australia wheat	23.0	23.0	22.5	22.5
China Corn	166.0	166.0	155.0	155.0
Brazil corn	51.0	51.0	56.1	54.4
Brazil soybeans	65.0	65.0	69.0	69.0
Argentine soybeans	50.0	50.0	54.5	54.5

Corn Analysis

The 2010 U.S. corn crop won't be quite as big as previously thought, and ending corn stocks will be tighter, according to USDA's monthly crop production and supply and demand reports released early Friday. Cuts were a little deeper than many analysts had expected, so the report may be called neutral to bullish for corn when trade resumes later this morning. However, the impact remains to be seen due to sluggish economic conditions in the U.S. and throughout the world.

USDA now projects 2010 corn production at 13.160 billion bushels, on yields averaging 162.5 bushels per acre, down from 13.4 billion bushels and 165.0 bushels per acre in the August report. Forecasted yields decreased from last month throughout much of the Corn Belt, Tennessee Valley and Delta, while yields were up from August in the lower portions of the Southeast. Nevertheless, U.S. corn production is predicted to be record high. In its monthly supply and demand tables, USDA took 2010/11 corn ending stocks down to 1.116 billion bushels, on a decrease in production and feed and residual use and an increase in exports.

USDA lowered ending 2010/11 corn stocks 106 million bushels from last month, to 1.1 billion bushels, the lowest since 2003/04, and stocks as a percent of total use would be the lowest since 1995/96. USDA raised its forecast of the season average farm price to range between \$4.00 to \$4.80, up from \$3.50 to \$4.10 last month.

USDA lowered world ending corn stocks to 135.56 MMT from 139.2 MMT last month.

Soybean Analysis

For U.S. soybeans, USDA raised its production estimate by 50 million bushels from August, to 3.483 billion bushels, with yield increased .7 bushels per acre to 44.7 bushels per acre. Both those numbers were near the high end of trade guesses, so the report may be called neutral to bearish for soybeans. Soybean yields are forecast higher or unchanged across the central and northern Corn Belt, with the exception of Michigan, USDA said, and the forecasted yields in Illinois, Minnesota, Nebraska, New York and North Dakota would be record highs. Soybean yields are forecast lower across the Delta, Southern Plains, and with the exception of Louisiana and the Carolinas, the Southeast. As is the case with corn, U.S. soybean production is

also projected to be a new record. The department cut 2010/11 soybean ending stocks by 10 million bushels from the August estimate, as increases exports of both old and new crop offset the increase in production. The season average farm price was increased 65 cents per bushel on both ends of the price range, now estimated at \$9.15 to \$10.65 per bushel.

Wheat Analysis

In its world supply and demand tables, USDA raised world ending wheat stocks for 2010/11, as the economists at the World Agricultural Outlook Board cut estimates for world wheat consumption, more than offsetting a further reduction in world output, down to 643 million metric tons. Ahead of the report, analysts had expected world wheat production around 640 MMT, so the world wheat numbers could be called neutral to bearish. The biggest change in the wheat balance sheet was in exports, which USDA raised by 50 million bushels from the August estimate, resulting in the same size cut in ending stocks.

USDA once again cut estimates of wheat production in the drought-afflicted areas of eastern Europe, taking Russian production down 2.5 million bushels and production in the EU-27 down 2.4 MMT. USDA raised exports for Canada by 2 MMT and by 1.4 MMT for the U.S., more than offsetting reductions for EU-27 and Australia. Global ending stocks are projected 2 MMT higher, with increases in production in EU-27, Canada and Australia. The season average farm price for all U.S. wheat was increased by 25 cents per bushel on the low end and 15 cents per bushel on the high end of the price range, now estimated at \$4.95 to \$5.65 per bushel.

Another number of interest in recent weeks has been total coarse grain stocks (corn, sorghum, barley, oats and other small grains). This month, USDA lowered world coarse grains 2010/11 ending stocks to 166.76 MMT.

Source: USDA September Report

Market Strategy

Today's report is important because it is based upon USDA farmer surveys and spot field checks. The primary marketing concern now becomes how much of the actual numbers are already factored into prices? The bullish tone for corn,

soybeans, and wheat in this report could be overshadowed by sluggish economic conditions in the U.S. and throughout the world. The bearish tone for world wheat ending stocks could take wheat prices lower. On Thursday afternoon, Dec '10 corn futures closed at \$4.70; Nov '10 soybean futures at \$10.46; and July SRW wheat futures at \$7.38 per bushel.

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

General

Fall Nematode Sampling - *Bob Mulrooney, Extension Plant Pathologist*; bobmul@udel.edu

The fall is generally the best time to sample for nematode populations in vegetables and field crops. After harvest is complete but before any fall tillage is the best time for taking survey samples. With the very dry conditions, however, I would delay taking fall nematode samples until we get some rain. Samples taken from very dry soil may not be representative of what is present in the field.

One other observation is that nematode soil samples should not represent any more than 20 acres. Nematodes are not uniformly distributed in the soil and it would be easy to miss significant numbers if a single sample of 20 soil cores represented a large acreage. I am not trying to generate more work, just better information on which to make an informed recommendation.

Palmer Amaranth is in the Area - *Mark VanGessel, Extension Weed Specialist*; mjv@udel.edu

I have seen a few fields in the area (Delaware and Maryland) with infestations of Palmer amaranth. Palmer amaranth is related to pigweed, and early in the year they look very much alike. However, at this time of the year, the seedheads look very different. Palmer amaranth has been described as pigweeds on

steroids because of its ability to grow very rapidly, get very tall, and be very competitive with crops. Palmer amaranth is found throughout the southern US and is moving northward. Palmer amaranth is not as sensitive to Group 2 herbicides as smooth or redroot pigweed (this includes Pursuit, Sandea, Accent, Matrix etc). Furthermore, glyphosate-resistant Palmer amaranth is present in Georgia, North and South

Carolina and other southern states. I am not aware of any herbicide-resistant Palmer amaranth in our area.

My [article last week](#) was about cleaning equipment before moving to the next field and it certainly pertains to this species. If you suspect you might have Palmer amaranth, do not spread it from field to field.

Characteristics	Redroot Pigweed	Smooth Pigweed	Palmer Amaranth
Stem hairs	Hairy	Hairy	No hairs
Stems	Often ridges running length of stem	Often ridges running length of stem	Mostly smooth
Leaf petioles	Petioles no longer than length of the leaf	Petioles no longer than length of the leaf	Long drooping petioles
Seed head	Short, stout, prickly	Long, slender, slightly prickly	Very long, thick, very prickly

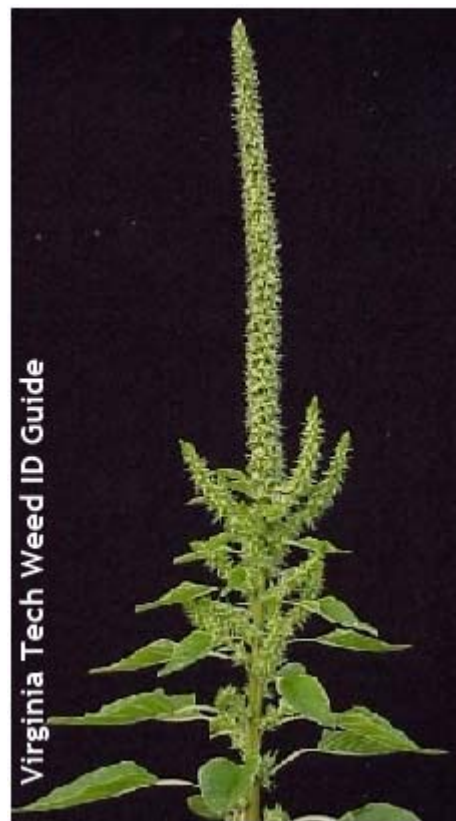
A couple of good publications include:

<http://www.extension.iastate.edu/Publications/PM1786.pdf>

<http://www.ksre.ksu.edu/library/crpsl2/s80.pdf>



Smooth pigweed



Palmer amaranth

Announcements

Pole Lima Bean Open House

Tuesday, September 21, 2010 11 a.m. – 2 p.m.
Delaware State University
Outreach and Research Center
Smyrna, DE

- Pole lima bean trial based on planting date on half acre plot
- Ethnic crop plots
- High tunnel season extension
- Organic vegetable production

Lunch will be provided.

RSVP by September 14:

Phone: 302-857-6425

Fax: 302-857-6430

E-mail : jclendaniel@desu.edu

If you have any questions or any special needs, please contact us today.

Farm Service Agency and Delaware Department of Agriculture Crop Insurance Workshops

Thursday, September 16, 2010

**** Your Choice of Time and Location ****

8:00 a.m.

Paradee Center

69 Transportation Circle

Dover, DE 19901

(Coffee and Pastry Refreshments)

6:30 p.m.

Carvel Research and Education Center

16684 County Seat Highway

Georgetown, DE 19947

(UD Creamery Ice Cream and Refreshments)

The new FSA crop disaster program (SURE) recently supplemented Delaware crop insurance loss payments by 20%. Make certain you know how crop insurance decisions you make right now will affect your 2011 SURE eligibility.

The USDA/RMA recently unveiled a new crop insurance policy for 2011 barley, wheat, corn, grain sorghum and soybeans: called the Common Crop, or COMBO Policy. This new policy replaces Crop Revenue Coverage (CRC) and traditional yield insurance in the state of Delaware. It is important for you to know how the new benefits can affect your operation.

To register for the meetings, or if you would like more information on the workshop, call 302-424-8340, or toll-free at 877-673-2767. The courtesy of your registration ensures enough workshop materials and refreshments are prepared.

Field Day for Weed Control in Sustainable or Organic Vegetables

Thursday, September 30, 2010 9 AM - 3 PM

University of Delaware

Carvel Research & Education Center

16686 County Seat Highway

Georgetown, DE 19947

This project is funded by Northeast SARE: to examine the integration of cultural practices, cultivation, weed biology and OMRI herbicides. This is a one-day hands-on training program for agricultural educators and farmers interested in:

- Stale seedbed programs to reduce weed competition
- Continuous tillage influence on soil weed seed populations
- Multiyear cover cropping and impact on weed competition
- Basic weed biology (weed seed dormancy/emergence and perennial weed population dynamics) to assist farmers in weed control practices
- Precision cultivation including tractor mounted and manual implements
- Principles of flaming for weed control
- ORMI approved herbicide demonstrations including backpack sprayer operation for precision application
- Mulching techniques for effective weed suppression

in vegetable crops

To register contact Karen Adams: 302-856-2585 ext. 540 or adams@udel.edu
Limited enrollment to 40 participants

Southeast Strawberry Expo

November 8-10, 2010
Wyndham Virginia Beach Oceanfront
Virginia Beach, VA

For the first time ever, the Southeast Strawberry Expo leaves its home base of North Carolina, heading this year to Virginia Beach, Virginia. The Expo offers workshops, a farm tour, a trade show, and educational sessions. Current and prospective plasticulture strawberry producers from Maryland, Pennsylvania, and other states outside the Southeast will find a warm welcome, sessions oriented towards very much toward their conditions and needs, and many opportunities for interaction with other growers.

For more information about the hotel, travel to the Virginia Beach area, program updates, and registration, visit www.ncstrawberry.com. Email info@ncstrawberry.com or call 919-542-4037 for more information.

Regional Women in Ag Conference

January 25-26, 2010
Dover Downs Hotel and Casino
Dover, DE

More information is available at:

<http://ag.udel.edu/extension/kent/womeninag.htm>

or contact Laurie Wolinski at (302) 831-2538

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of September 2 to September 8, 2010

Readings Taken from Midnight to Midnight

Rainfall:

0.01 inch: September 3

Air Temperature:

Highs ranged from 91°F on September 8 to 79°F on September 5.

Lows ranged from 73°F on September 3 to 50°F on September 6.

Soil Temperature:

79.9°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
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Crops*

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