



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

Volume 17, Issue 25

September 4, 2009

Vegetable Crops

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

Cabbage

Continue to sample for cabbage looper, diamondback larvae, fall armyworm and harlequin bug. Be sure to scout and select control options based on the complex of insects present in the field.

Lima Beans

Continue to scout for stinkbugs, lygus bugs and corn earworm. Economic levels of stinkbugs and earworms can be found. Since trap catches remain high, multiple applications may be needed for earworm control.

Peppers

With the high corn earworm and increased corn borer moths catches in blacklight traps throughout the state, be sure to maintain a 5 to 7-day schedule on all peppers for worm control. Also, be sure to select materials that control both earworms and corn borers.

Snap Beans

With the high corn borer and corn earworm moth catches, you will need to consider a treatment for both insect pests. Sprays are needed at the bud and pin stages on processing beans for corn borer and corn earworm control at this time. As a reminder, if you are using Orthene (acephate) for corn borer control in processing snap beans, it will not provide effective corn earworm

control. Call the Crop Pest Hotline or check our website for the most recent trap catches in your area to help decide on the spray interval between the pin stage and harvest for processing snap beans

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

Spinach

The first webworms have been found in newly emerged spinach. Both webworms and beet armyworm moths 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. Also, remember that both insects can produce webbing on the plants. Generally, at least two applications are needed to achieve control of webworms and beet armyworm.

Sweet Corn

With the high corn earworm catches throughout the state, all fresh market silking sweet corn should be sprayed on a 2-day schedule.

Sweet Corn and Lima Bean Disease Update

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

Sweet Corn

See the article on stalk rots in this issue for pictures of Diplodia ear rot on sweet corn. Nothing to do for it except work in the corn

stalks at the end of the season. Chalk this one up to wet weather.

Lima Beans

Pythium pod rot can be a problem when we have wet, warm weather, like what occurred last week and the week before. Pythium is soil born and moves into pods that are touching the soil and can then spread to other plant parts under ideal conditions. It can be more of a problem in snap beans but does occur sporadically in lima beans as well. It is extremely hard to predict when and where it will occur unless the field has a history of Pythium problems. Ridomil Gold/Copper has a 24c label for use on snapbeans in DE, MD and VA. Application should be made before the pods develop and touch the soil surface. The phosphorus acid fungicides that are labeled on beans, such as Prophyt, would be another product to try if the situation warranted it.



Pythium pod rot on lima bean. Note the white cottony growth.

New Product Labeled for Lima Bean Downy Mildew

I just received notice that BASF labeled Forum (dimethomorph), formerly Acrobat, for use on succulent beans for downy mildew. This was a surprise and I had to look at my data to see how it did. It was tested in 2001 and performed very well. It controlled downy as well as the standard Ridomil Gold/Copper. I have the opportunity to look at it again this year since I just applied the treatments for a downy mildew test in Georgetown on Wednesday and have included Forum. Forum is also very active on *Phytophthora capsici*, which causes lima bean pod rot and is another problem that has been

troublesome for lima bean growers. The rate is 6 fl oz/A for downy mildew which is also the recommended rate for *Phytophthora capsici* fruit rot control on cucurbits. I'm not sure how much material is available, but Forum is another tool in the toolbox. That gives us Ridomil Gold/Copper, Phostrol and other phosphorus acid fungicides, Headline, and Forum for use on baby limas for downy mildew.

Bonsai Pumpkin Plants - Jerry Brust, IPM Vegetable Specialist, University of Maryland; jbrust@umd.edu

No I am not talking about some new "value added" pumpkin variety. I am referring to pumpkin plants that appear to be normal in the field up to about the third or fourth week and then they suddenly stop growing, while plants around them continue to grow. These 'bonsai' plants are not deficient in nutrients or water, but their leaves, at times, will turn yellow at the margins and even necrotic. The plants do not wilt or die – they just sit there never producing a pumpkin fruit. I used to think that these small plants were the result of herbicide carryover from the previous crop, usually a cereal crop. This is probably true when there are large sections of the field with the bonsai plants, but what I have seen in the past and I am seeing this year, as are growers and consultants, are many more scattered bonsai pumpkin plants across a field. These plants are difficult to see at this time of year as they have been covered over by their neighbors. One guess I have (as did one consultant) is that squash bugs are causing these miniature plants in the field. We had exceptionally high numbers of squash bugs this year and many growers had trouble controlling them. When squash bugs feed they inject a toxin into the plant that can cause the plant to wilt (often this wilting is called *Anasa* wilt, *Anasa* being the genus name of the squash bug). If the bugs feed at the right stage of growth or in such a way that they do not cause much, if any, wilting but the toxin builds in the plant it is possible that the toxin is slowing the growth of the plant. I have no proof that squash bugs are causing these small plants in the field other than the observation that pumpkin fields where I had

good squash bug control had no bonsai plants, but two fields where squash bug was poorly controlled and the bugs fed extensively at the base of the plants had a great deal of the miniature plants. I think the damage is worse to the pumpkin plant when squash bugs are allowed to feed at the base of the plant for extended periods of time than if they feed on the foliage. Growers will need to watch their pumpkin plants closely next year and as they begin to grow being sure to check at the base of the plant and under the plastic for squash bugs.

Worms in High Tunnel Tomatoes - Jerry Brust, *IPM Vegetable Specialist, University of Maryland*; jbrust@umd.edu

I have been seeing a great many different caterpillar species in high tunnel tomatoes in the past two weeks and damage is heavy at times (Fig. 1). The worm species consist of yellow striped AW, horn worm, fruit worm, and others. The tomatoes inside my high tunnel have about 23% of the tomatoes damaged due to worm feeding (no controls applied) while outside my high tunnel the tomatoes (same variety as inside HT) have almost no worms in them (no controls applied). My research has pointed toward several causes for this occurrence that I will discuss once all the data is in. Bt products such as XenTari will still work if you apply them weekly and the product is present when small worms feed, but to clean up an infestation of medium to large worms, pyrethroids or Lannate would be best.



Figure 1. Damaged tomato fruit from high tunnel and yellow striped AW in tomato fruit

Agronomic Crops

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

Alfalfa

Continue to sample fields on a weekly basis for leafhoppers as well as defoliators including earworm, webworms and fall armyworms.

Soybeans

As of this date, economic levels of corn earworm larvae have been reported in fields in Sussex County. Although Sunday's moth catch (August 30) was high at all locations, the most recent blacklight trap catches (Sept 3) are showing a decline due to the recent cool nights. In comparison, pheromone trap catches remain high in a number of locations. It appears that the corn earworm hatch may have been delayed due to the recent cool evening temperatures. With the warmer weather predicted for the end of the week and weekend, fields should be scouted carefully for corn earworm larvae. The only way to know if you have an economic level will be to scout and treat when worms are small – do not wait until you see pod damage. It will be important to spray when worms reach threshold. The Corn Earworm Calculator (<http://www.ipm.vt.edu/cew/>) developed in

Virginia estimates a threshold based on the actual treatment cost and bushel value you enter. When selecting an insecticide, be sure to check all labels for the days from last application to harvest as well as other restrictions.

With the recent cooler temperatures, we have seen a significant increase in soybean aphid populations in double crop fields on the western side of the state, especially in Kent and Sussex counties. As a general guideline, treatment is needed through the R-5 stage (seed is $\frac{1}{8}$ inch long in the pod of one of the four uppermost nodes on the main stem) of soybean development if economic levels are present. It may also be beneficial to spray through R-6 stage (pods containing a green seed that fills the pod cavity at one of the four uppermost nodes on the main stem) – reports vary as to the benefit of spraying once plants reach the R-6 but in some years and some situations there has been an economic return. Spraying after R-6 stage has not been documented to increase yield in the Midwest. The suggested treatment threshold from the Midwest is still 250 aphids per plant with an increasing population.

Lastly, there are also a number of defoliators still present in double crop soybeans including bean leaf beetles, grasshoppers, and green cloverworms. The pest complex varies from field to field. The threshold should be reduced if a mixed population is present. As a reminder, both bean leaf beetles and grasshoppers can also feed on pods.

Small Grains

With the increase in no-till wheat acreage as well as our typical rotation of wheat following corn, it will be important to consider a number of insect pests that can present problems. Last season there was a nice article in the Kentucky Pest News entitled “Insect Pest Management Decisions in Preparation for Planting Wheat” that should be reviewed since it does a nice job of addressing insect pests that pose a threat to wheat in the fall including aphids, the wheat curl mite, Hessian fly and fall armyworm. (http://www.uky.edu/Ag/kpn/kpn_08/pn080825.htm#wheins). In addition to the insect pests listed in this article, true armyworms have been a pest in the past as well as slugs, if we have a wet fall.

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

Powdery mildew is present on some varieties. It is not a yield limiting disease and control is not warranted. See the article in [WCU 17:23](#) for more information on this disease. **Downy mildew** on soybeans is very common on varieties with no or limited resistance. It too is not thought to be yield limiting here. A few growers have asked about **white mold** in soybeans. This disease is caused by *Sclerotinia sclerotiorum*, the same fungus that causes white mold in snap beans, lima beans and peas. Soybeans that are rotated with these crops in fields that have had the disease in the past are most at risk. This disease occurs sporadically in Delaware. Conditions favoring white mold are usually present when we have had lots of rain and the temperatures are moderate during flowering. Crops that are lush and dense with tight canopies are most at risk since the lower parts of the plant stay wet for long periods of time. During dry seasons, growers that over-irrigate soybeans during the late flowering to early pod fill have induced it on fields with a history of white mold. The fungicides that are used on soybeans for disease control and plant health are not effective for white mold. Fungicide applications have not been very successful at controlling white mold.

Sudden death syndrome (SDS) was confirmed from the two finds last week from New Castle and Sussex counties. Several more fields have been diagnosed this week. We have not seen this disease in Delaware since 2000 when it was first identified. The reason we are seeing it again is that we had weather conditions that were very favorable for SDS, just like in 2000. It has to be cooler and wetter than normal for us in the early part of the season for SDS to appear. What does SDS look like in the field? Yellow blotches form between the veins, usually developing first on the uppermost leaves. In a few days the yellow blotches will coalesce and begin to turn brown. The end stage is complete tissue death between the veins, with the only green tissue remaining being that associated with the primary leaf veins. The edges of severely diseased leaves will roll inward. Over time, the diseased leaflets may fall off the leaf stalks (petioles) or they may remain attached to the plant. When you dig up

the infected plants primary, secondary and tertiary roots are severely rotted. Nitrogen-fixing nodules are mushy. The exterior of the stem appears healthy but the interior of the stem is a milky-brown to gray color, compared to the yellow-white color of a healthy stem. Serious yield loss usually only occurs when plants are exhibiting serious foliar symptoms BEFORE mid-pod fill. After that time, plants can look pretty rough, but yields may not be affected much. Individual and groups of plants, 10-50 feet in radius, usually show a range of symptoms ranging from some leaf spotting to complete defoliation. Wet or otherwise stressed areas of fields from compaction or other causes, such as along field edges, will usually be the first to develop symptoms. In extreme cases, entire fields may show symptoms. When SDS is severe, symptoms will first develop in "hot spots" and later progress into other areas. This gives the effect that the disease is spreading, but in reality it is not. Rather the time of infection, crop health, and field conditions vary, so disease symptoms are expressed at varying times and rates.

Control of SDS

The only control is reducing plant stress by reducing compaction, and planting resistant or tolerant varieties. Rotation is of little to no value in controlling SDS. Be careful to check plants carefully for these symptoms because stem canker can also produce similar symptoms. The following pictures will give you a good idea of what SDS looks like in the field:



Early leaf symptoms



Later leaf symptoms showing interveinal necrosis



Field shot showing the browning leaves and some defoliation



Leaves will fall off but the petioles (leaf stalks) remain attached



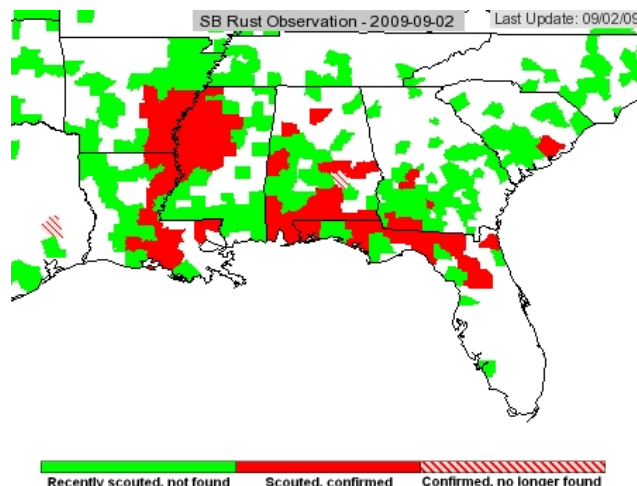
The bark has been removed from the lower stem and tap root to show the brown discoloration of the vascular tissue under the bark of the diseased soybean compared to the healthy white stem on the bottom plant.

Soybean Rust Report

On September 2, soybean rust was reported on soybean from a sentinel plot in Dorchester County, South Carolina just 30 miles from the Atlantic Ocean. This area has received abundant rainfall recently while the rest of the state has been dry. The amount of rust at this site is very low at the present time. On September 1, soybean rust was reported on soybeans in Jefferson and Phillips Counties, Arkansas; Panola County, Mississippi; and Macon and Miller Counties, Georgia. The disease was also observed in soybean sentinel plots in Lee and Macon Counties, Alabama, as well as on kudzu in Crenshaw County in that state. On August 29, soybean rust was detected on kudzu in Jackson County, Florida. On August 28, soybean rust was reported in Drew, Lincoln, Desha and Lee counties in Arkansas; Lafayette, Morehouse and West Carroll parishes in Louisiana; Attala, De Soto and Madison counties in Mississippi; and in Greene County, Alabama.

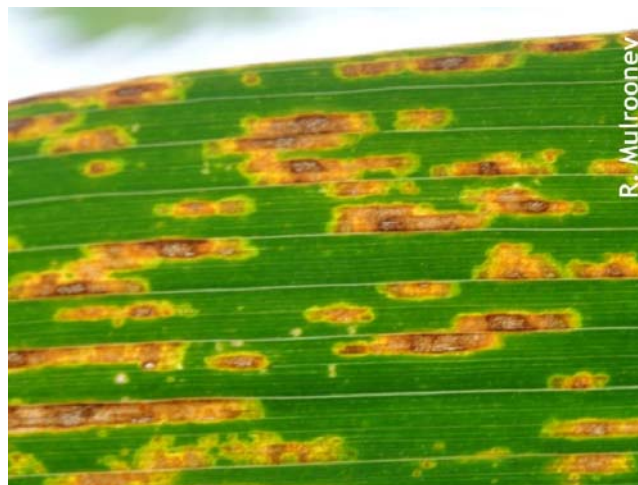
The total number of counties reporting soybean rust in 2009 has more than doubled the number that had reported rust on the same date in 2008. Rust is moving in areas that have had both the moisture and temperatures that favor rust in the South. Monitoring will continue here in Delaware. Many Group 3 and 4 soybeans planted in mid to late May are approaching R6 or later and would not be at risk if SBR would move north in a tropical storm event. Late double crop

soybeans will be the most at risk if the weather pattern should change and we get some tropical storms or a hurricane. Most of the rust activity is in the Mississippi River Valley heading north into Arkansas. Besides the scattered reports of SDS, powdery mildew and downy mildew soybeans look good from a plant disease perspective.



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

Northern Corn Leaf Blight and Gray Leaf Spot
Northern corn leaf blight and gray leaf spot have been pretty common this season on many hybrids. The cooler season and increased rainfall in many areas has resulted in more of both diseases this year. Fungicide applications to corn should pay dividends this season.



Note the rectangular lesions of gray leaf spot.



Northern corn leaf blight lesions are wide with bluntly rounded ends. Note the gray leaf spot lesion above it for comparison.

Stalk Rot and Ear Rot in Corn

Be on the lookout for stalk rots and ear rots as harvest approaches. Diplodia ear rot has been diagnosed in two sweet corn fields last week and Fusarium and Gibberella ear rot will probably be seen as well. The following article from Kentucky is on the Kent County Ag Blog and is a good treatment of the rots we are likely to see this fall.

The common late-season stalk rots are caused by fungi and include: Gibberella stalk rot (*Gibberella zeae* = *Fusarium graminearum*), anthracnose (*Colletotrichum graminicola*), Fusarium stalk rot (*Fusarium moniliforme*), charcoal rot (*Macrophomina phaseolina*), and Diplodia stalk rot (*Diplodia maydis*). It is common for more than one stalk rot organism to attack a plant at the same time.

Symptoms

Stalk rots caused by Gibberella, Fusarium and Diplodia fungi are not usually apparent until several weeks after pollination. Diseased plants may die suddenly in various areas within the field, with leaves first turning a dull, grayish-green similar to the color caused by frost or drought damage. Death of the entire plant follows within 7 to 10 days in susceptible hybrids. The lower internodes turn from green to tan, straw-colored, or dark brown and are spongy and easily crushed. When the stalks are split lengthwise, only the vascular strands are intact and the pith tissue is decayed.

Stalks infected with the Gibberella fungus have a characteristic pink to reddish discoloration of the pith and vascular strands. The breakdown of pith tissues starts at the nodes soon after pollination and becomes more severe as the

plant matures. Rotting also commonly affects the roots and crown as well as the lower internodes. An additional identifying feature is the presence of small, round, bluish-black perithecia (fungal-fruitlet bodies) which form on the surface of Gibberella-infected stalks in the fall or the following spring. These fruiting bodies are easily scraped off with a thumbnail. Fusarium stalk rot looks similar to Gibberella, except that the discoloration of infected tissues commonly varies from whitish-pink to salmon.

Diplodia stalk rot can be distinguished from other stalk rot diseases by the numerous, small, black dots (pycnidia) which the fungus produces at or near the lower nodes of infected stalks. Unlike the perithecia formed by the Gibberella fungus (which may also be clustered near the lower nodes), the pycnidia of Diplodia are embedded in the rind and cannot be scraped off with a fingernail. However, individual stalks may have fruiting bodies of both fungi if a double infection has occurred.

Corn anthracnose has become much more prevalent in Kentucky since the early 1970s. In addition to rotting the lower stalk, the anthracnose fungus is capable of attacking the stalk above the ears, causing dieback and breakage of the plant tops (borer injury in the top of the plant may cause similar symptoms). The fungus also commonly causes a leaf blight. Although the lower stalk rot phase of anthracnose may cause very susceptible hybrids to be killed before pollination, most hybrids are killed only a week or two before normal maturity. A shiny black or dark brown discoloration of the rind late in the season is a typical symptom of anthracnose on the stalk. This black discoloration usually extends up the stalk for several internodes and may uniformly discolor the rind or give it a blotchy or speckled appearance. The pith tissue beneath these lesions becomes brown or black, especially around the nodes. When lodging occurs, it is usually higher on the plant than with other stalk rot diseases.

Here are two pictures of Diplodia ear rot on sweet corn which would also be applicable to field corn:



Diplodia enters the ear at the leaf sheath and progresses up the ear shank causing the rot. It usually is not found on the tips of the ears initially.



Look for the white fungal growth and the small black reproductive structures of the fungus on the husks.

Preliminary Results from Small Grain Trials

- *Bob Uniatowski, Associate Scientist;*
bobuni@udel.edu

Preliminary results from the 2009 Delaware Small Grain Trials are available online at http://www.udel.edu/varietytrials/small_grains/index.html.

INTRODUCTION

During 2008-2009, 48 wheat (including 7 experimental), 9 public barley (1 experimental) varieties were tested at three locations, and 5 winter oat, 6 rye, and 4 triticale varieties at one location in Delaware. These trials are conducted according to the policies and procedures of the University of Delaware Agriculture Experiment

Station and Cooperative Extension. This publication reports the results of the Delaware Small Grain Performance Trials.

In 2009 private entries - entered voluntarily by the owner - were accepted after meeting eligibility requirements. Public entries were solicited from universities and crop improvement associations. No verification has been made that the seed (grade or quality) entered is the same as that offered for sale. Plans and rules for entering these trials are available, upon request, to anyone. The author will contact persons wishing to enter the 2010 Delaware Small Grain Performance Trials in September 2009.

HOW BEST TO USE SMALL GRAIN RESULT INFORMATION

1. Select the test location that best represents your production location(s). Small grain varieties are widely adapted across Delaware, but certain soil or climatic condition, cultural practices, or insect/disease problems can change yield results, and may limit the choice of varieties.

2. Multiple-year averages across the greatest number of years are probably the best predictor of performance. Additionally, averages that combine locations for a single year may be a better predictor of performance than data from a single location.

3. When using long-term averages, select the variety or varieties that you are best acquainted with, or are currently utilizing on your farm and use these as "benchmarks" when comparing new varieties.

4. Obtain additional information from your own farm observations, neighbors, local seed dealers, company seed catalogs, and other variety trial information conducted on Delmarva. Use this accumulated information to compare new or promising varieties with your benchmark varieties.

The performance of a variety cannot be measured with absolute precision. Uncontrollable variability exists whenever yields are determined using field studies. This variability may occur because of small differences in soil such as fertility levels, moisture holding capacity, sand or gravel intrusions, and many related and unrelated

conditions. When selecting sites, uniformity is of the utmost importance; frequently the factors or conditions contributing to variability cannot be identified with the naked eye. Because variability exists in all field experimentation, statistics are used as a tool to assist in making decisions when comparing varieties. The statistical tool used in these trials is the test of least significant difference (L.S.D.), computed at a 5% level of probability. The L.S.D. is very simple to apply. When two varieties are

compared and the difference between them is greater than the L.S.D., the varieties are judged to be significantly different. An example for yield: variety A yields 90 bu/A, variety B yields 81 bu/A and the L.S.D. is 7 bu/A, therefore variety A is said to be significantly better.

Another statistical tool is called the coefficient of variability (%C.V.). It is a measurement of uncontrollable variability due to differences in the soil, weather, fertility, etc. C.V.s below 15% are considered good.

Table 1. Performance Trial Methodology

	New Castle County	High Organic Sussex County	Sussex County
Planting Date	November 4, 2008	November 4, 2008	October 30, 2008
Harvest Date			
Barley	July 7, 2009	June 30, 2009	June 22, 2009
Wheat	July 7, 2009	June 30, 2009	June 29, 2009
Population	25 seeds/ft. of row	25 seeds/ft. of row	25 seeds/ft. of row
Soil Type	Silt loam	Sandy Loam	Loamy Sand
Reps	4	4	4
Row Spacing	7.5"	7.5"	7.5"
Previous Crop	Corn	Corn	Corn
Fertility			
Fall	300# 6-18-36		30#N
Early spring	40#N	40#N	40#N
Late spring	60#N	60#N	60#N
Herbicide	0.5 oz. Harmony Extra	0.5 oz. Harmony Extra	0.5 oz. Harmony Extra
Insecticide	3.2 oz. Warrior	3.2 oz. Warrior	3.2 oz. Warrior

RESULTS

(to view tables go to linked web site)

New Castle County

www.udel.edu/varietytrials/small_grains/2009_New_Castle_County_Small_Grain_Report.pdf

Barley - Table 2:

Yields ranged from 73.8 (GrowMark FS-950) to 39.4 (Eve - a hulless variety) bu/A Test weights were from 52.0 (Eve a hulless Barley) to 34 lbs/bu. There was significant differences for yield, test weight, and plant height, lodging was moderate in all plots. Thoroughbred had the highest 2 year (101) and 3 year (99) bu/A average.

Wheat - Table 3:

Of the 47 entries entered in the trial, 21 were not significantly different from the leader (Va.- Exp. VA04W-90). Yields ranged from 74.1 (Va.- Exp VA04W-90) to 43.5. Test weights ranged from 58 to 47 lbs/bu. There were significant differences for yield, test weight and plant height. Lodging was only a minor problem in some varieties.

High Organic Matter Soil (Sussex County)

www.udel.edu/varietytrials/small_grains/2009_High_Organic_Matter_Soil_Small_Grain_Report.pdf

Barley - Table 4:

Thoroughbred was the only variety that was significantly different from the others. Yields ranged from 69.8 (Thoroughbred) to 36.9 bu/A. Thoroughbred was also ranked 1st, 1st and 5th in the pooled site ranking for the state. Test weights ranged from 57 lbs (Eve a hullless variety) to 40lbs. Yield, test weight, and lodging were also significantly different.

Wheat - Table 5:

Yields ranged from 64.4 (USG 3555) to 27.2 bu/A. with a L.S.D. of 7.5 bu. Test weights ranged from 62 to 55 lbs/bu. There were significant differences for yield, test weight and plant height. Lodging was not a problem at this location.

Sussex County

www.udel.edu/varietytrials/small_grains/2009_Sussex_County_Small_Grain_Report.pdf

Barley - Table 6:

Three of the nine varieties were in the L.S.D. range of 8.5 bu/A, yields ranged from 78.7 (Thoroughbred) to 51.1bu/A (Eve). Yield, test weight and plant height were also significant. Lodging average was 1.8 on a 0 to 9 scale.

Wheat - Table 7:

Fourteen of the 47 varieties in the trial were not significantly different from the top yielding variety (DynaGro 9922). Yields ranged from 76.4 (DynaGro 9922) to 48.7 bu/A. Significant differences are also reported for test weight, and plant height. Lodging was not a problem for this test.

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

Big Crops Get Bigger or Do They?

USDA will release their September supply and demand estimates next Friday. The National Weather Service has predicted warm growing conditions for the next ten days to two weeks in the Corn Belt. Private forecasters releasing their predictions this week are raising their corn and soybean production estimates from month ago levels. In August USDA projected U.S. corn production at 12.761 billion bushels from 80

million acres harvested at 159.5 bushels per acre. U.S. soybean production was projected at 3.199 billion bushels from 76.8 million acres harvested at a yield of 41.7 bushels per acre. This week FC Stone and others are projecting even higher production levels than the ones stated above. If the higher production levels are realized then stocks will rise and prices will respond accordingly. It is possible to suggest that '09 U.S. corn and soybean production levels could grow from their August estimates providing the weather holds and a killing frost does not shorten the growing season. It is also possible to suggest that the '09 crop may not get bigger due to the impact that an early or even normal occurring frost might have on crop development and yield. It would seem logical that frost concerns are most prevalent in the Northern tier of the Corn Belt. At this point it is fair to suggest that anything is possible. We are projected to harvest big or bigger U.S. corn and soybean crops. The eventual actual crop size is likely to be in line with USDA's August estimates, give or take a few hundred million bushels.

Market Strategy

Dec '09 corn futures haven't changed much in the last two weeks, closing at \$3.24 on August 20 and \$3.19 per bushel on September 2, staying off nearby support at \$3.10. New crop Nov '09 soybean futures were trading at \$9.57 on August 20 and \$9.51 per bushel on September 2. Support for the new crop soybean contract is near \$9.42. Commodity traders have been taking the weather premium out of new crop corn and soybean prices for some time due to the near ideal growing conditions that the Corn Belt has been and still is experiencing this summer. In the event that crop size increases and stocks rise then these support levels will be broken, moving prices lower going into harvest. The pending question then becomes which crop to favor storing: corn or soybeans? Dec corn futures are currently trading at \$3.14 and Nov soybean futures are trading at \$9.39 per bushel, indicating that prices are now likely to make the next leg lower.

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

Announcements

Beekeeping Meeting

Saturday, September 12, 2009 8:30 a.m.-noon
Wye Research and Education Center
Queenstown, MD 21658

Meeting Agenda

8:30-9:00 – Sign-in and coffee

Varroa Mites

Dean Burroughs, Master Beekeeper and Maryland
Apiary Inspector

The BARC American Foul Brood Diagnostic Laboratory and Update on the Specifics of American Foul Brood Disease

Bart Smith, USDA Bee Laboratory in Beltsville

Nosema Diseases (yes, there are two of them!) and What We Can Do to Prevent or Control Them

David Morris, a master beekeeper from the Bowie-
Upper Marlboro Beekeepers Association and a past
President of the Maryland State Beekeepers
Association

Update on Control of Small Hive Beetle

Mike Embrey, University of Maryland Extension
Apiculturist

Question and Answer Session

Meeting will end at 12:00

*For additional information please contact Mike
Embrey at (410) 827-8056 x148 or
membrey@umd.edu*

Friends of Agriculture Breakfast Series

Modern Maturity Center
1121 Forrest Avenue, Dover, DE

Friday, September 18, 2009 7:15 a.m.

Agriculture: Delaware and Beyond – Considering the Complex Issues Facing our Industry

Dr. Bill McGowan

Agriculture is one of Delaware's leading economic
engines and touches every Delawarean and beyond. As
we begin our 2009-2010 Ag Breakfast series, it's
appropriate that we take time to consider the complex

issues facing our industry. Using a discussion format
and audience response system, we will identify and
discuss several of those issues.

Registration for each breakfast is \$20.

Additional upcoming dates for the 2009–2010 Friends of Agriculture Breakfast Series

Speakers to be Announced

October 16, 2009

November 20, 2009

January – Ag Week

March 19, 2010

*To register, please contact Alice Moore at (302)
831-2504 or ammoore@udel.edu. Additional
information at: <http://ag.udel.edu/agfriends>.*

2009 WREC Pumpkin and Sweet Corn Twilight Meeting

Tuesday, September 22, 2009 4:30-7:00 p.m.
Wye Research and Education Center
211 Farm Lane, Queenstown, MD
(signs will be posted)

Please join University of Maryland Specialists Jerry
Brust, Bryan Butler, Galen Dively, and Mike Newell
for review and discussion of current field research and
grower concerns. Participants can view a replicated
trial of 30 pumpkin varieties, plus see and taste 7 “Bt”
sweet corn varieties.

A light dinner fare will be provided. No pre-
registration is required.

For additional information, contact Mike Newell @
mnewell@umd.edu or (410) 827-7388;
<http://www.wrec.umd.edu>.

If special assistance is required to attend this meeting,
please contact Debby Dant @ (410) 827-8056 by
September 15, 2009.

Pole Lima Breeding Line Evaluation

Thursday, September 24, 2009 5:30-7:00 p.m.
Carvel Research and Education Center
16483 County Seat Hwy.
Georgetown, DE 19947

Attention Pole Lima Bean Enthusiasts!

Come help to evaluate the pole lima varieties and breeding lines being tested at the Georgetown research farm. Lines to look at include twelve varieties, thirteen hybrids and four diverse populations developed from crosses.

Please contact Emmalea Ernest by Tuesday, September 22 if you plan to attend: (302) 856-7303 or emmalea@udel.edu.

Equine Pasture Walk

Tuesday, September 29, 2009 5:30-7:30 p.m.
University of Delaware Webb Farm
508 S. Chapel St., Newark, DE

Come and meet University of Delaware's new Equine Extension Specialist, Dr. Carissa Wickens. Learn about rotational grazing and management practices used on-farm at UD. Get help with decisions regarding pasture nutrient needs and the rising cost of fertilizers and amendments. Learn about NRCS programs available to help you and your farming operation.

Experts will be on hand from the University of Delaware and the Natural Resource Conservation Service (NRCS) to answer your questions!

This meeting is free and everyone interested in attending is welcome. Please bring a folding chair.

Nutrient management and CCA credits will be available.

Please preregister by September 25. To register, request more information or if you require special needs assistance for this meeting, please call our office at (302) 831-2506.

See you there!
Anna Stoops, New Castle County Ag. Extension Agent

2009 Mid-Atlantic Grass-Finished Livestock Conference: "Merging the Art and Science of Grass Finishing"

Friday, October 23 and Saturday, October 24
Holiday Inn Conference Center
Staunton, VA

Topics Covered

Forage Systems for Grass Finishing

Alternative Marketing Outlets
Small-Scale Processing Facilities
Healthy Grazing Systems
Supplementation in Pasture Finishing
Factors Affecting Meat Quality
Genetics for Grass Finishing
Meat Cutting and Cooking Demo

Early registration is \$200, and must be postmarked by September 15, 2009.

Brochure and registration information is available here: <http://www.rec.udel.edu/update09/grassfinished.pdf> or contact Margaret Kenny at (434) 292-5331 or makenny@vt.edu.

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of August 27 to September 2, 2009

Readings Taken from Midnight to Midnight

Rainfall:

0.98 inch: August 28

0.05 inch: August 29

1.06 inch: August 30

Air Temperature:

Highs ranged from 87°F on August 29 to 71°F on August 31.

Lows ranged from 71°F on August 29 to 54°F on September 2.

Soil Temperature:

78.1°F average

Additional Delaware weather data is available at http://www.deos.udel.edu/agirrigation_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. For subscription information, contact her at emmalea@udel.edu or (302) 856-2585 x 587.

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