This is the last issue of Weekly Crop Update for the 2007 season. I hope that this newsletter has been a useful resource to you as you dealt with the many challenges of this past growing season. My thanks to the individuals who have contributed articles this year — the WCU would not be possible without them, and to our office staff at the REC, who make sure the WCU gets to our fax and mail subscribers.

As editor of WCU, I appreciate your comments and suggestions for improvement of this publication. You can contact me at the email address above or at (302) 856-7303.

Best wishes for a safe and prosperous fall harvest season. I look forward to seeing many of you at meetings this winter.

Kind regards,

Emmalea

Vegetables

**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. In addition, the highest labeled rates may be needed if population pressure is heavy in your area.

The following information was reported from Tom Kuhar in their Virginia Ag Pest Advisory. We have also seen lesser cornstalk borer attacking snap beans in past years.
“Lesser Cornstalk Borer Infests Eastern Shore
- As if Eastern Shore growers have not had enough pest problems this year, fall snap beans in many fields throughout Northampton and Accomack Counties have been damaged by lesser cornstalk borers, which have tunneled into the bases of seedlings and killed many plants outright. Lesser cornstalk borer (LCB) is a moth pest. Larvae are dark-colored with purple bands around their bodies. Full grown larvae are about 3/4” long. When disturbed, they wriggle and flip about very rapidly. LCB feeds on many different host plants including weeds, grasses, snap beans, peanuts, and corn. Larvae will tunnel into the crown of host plants, severely weakening large plants and often killing young seedlings. Adult moths lay eggs in the soil or on host plants. Larvae feed for about 3 weeks spinning silken tubes near the soil surface for protection. Outbreaks of LCB occur during periods of hot, dry weather. Rainfall or irrigation will greatly reduce the threat of LCB damage. This pest is very difficult to control postplanting. Larvae are soil-dwelling and use their silken tubes to reach the base of plants, where they tunnel in. In general, foliar insecticides are not very effective for control. However, there is some belief that liquid insecticides directed at the base of host plants with a lot of spray volume or granules applied to the soil can be effective. From what my crew scouted today in several fields around the Eastern Shore, the damage is already done, and very few larvae are still found inside of plant stems. Those larvae that were found were large. Thus, it probably will not pay to treat for this pest at this time.”

Spinach
Continue to sample for webworm and beet armyworm larvae. We continue to find both species in spinach fields. Controls should be applied when worms are small and before webbing occurs. Generally, at least 2 applications may be needed to achieve control of webworms and beet armyworm.

Sweet Corn
Although corn earworm moth catches have started to decline, fresh market, silking sweet corn should still be sprayed on a 2-day schedule.

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

Lima Bean Diseases
Conditions have not been very favorable for downy mildew. If that changes and we begin to get significant rainfall, the threat of downy mildew and white mold increases. Be sure to scout regularly for symptoms of these two important diseases of limas. Remember that the best predictor for most situations is the Hyre-Cox model that states that conditions for downy mildew are favorable when fields receive 1.2 inches or more of rain within 7 days and the average daily temperature during that period is 78°F or less. Heavy dew and/or fog reduce the amount of rainfall needed to provide favorable conditions.

Downy mildew symptoms on lima bean pods
Nematodes in Vegetables
Fall is the best time to soil sample for nematode pests such as root knot, lesion, and other plant parasitic nematodes. After fall harvest but before any fall tillage is done take soil cores 6-8 inches deep between plants in the row. Samples should be taken in the root zone of the old crop. Twenty cores/samples should be taken from random spots in the field and placed in a plastic bucket, gently mixed, and a pint of soil submitted for analysis. Nematode test bags and instructions are available for purchase from the county Extension offices. Samples cost $10.00. Fall sampling for root knot nematodes is strongly recommended for fields that will be planted in cucumbers, watermelons, cantaloupes, lima beans or other high value vegetables where root knot could reduce production.

Fall Sanitation
In vegetable production it is not a good idea to leave old crop residue in the field any longer than necessary. If the crop is allowed to survive after harvest, fungi that cause many diseases continue to increase on the surviving plants. This allows higher numbers of the fungus to potentially survive until next season. Sanitation (plowing or disking the old crop) will help prevent pathogen carry-over.

Fruit Rot on Pumpkin - Kate Everts; Vegetable Pathologist, University of Delaware and University of Maryland; keverts@umd.edu

Note: The information in this article addresses fruit rot caused by fungi but not by Phytophthora capsici (see the following article Fungicides for Late Season Management of Foliar and Fruit Diseases of Pumpkin).

There are many fungi that cause fruit rot on pumpkin. Some examples are white speck caused by Plectosporium (formerly known as Microdochium), which causes white or tan “pimples” on the fruit (Fig. 1); black rot, which is caused by the fungus that causes gummy stem blight on the foliage (Didymella bryoniae), results in large grey lesions (Fig. 2); and anthracnose, which causes smaller grey lesions on fruit (Fig. 3). Fusarium fruit rot is a relatively dry fruit rot that initially looks white or pink, but frequently becomes black or tan because of saprophytic growth (Fig. 4).

Because many different fungi cause of fruit rots, no single strategy will be sufficient to manage them. However the following are good practices that, when used together, can minimize damage.

- Select well-drained fields for pumpkin production.
- Select cultivars (varieties) that are less susceptible to fruit rot. For example, there are some cultivar differences in susceptibility to white speck.
- Grow pumpkins on a no-till cover crop. No-till pumpkin production reduces several fruit rots and the reduction in rot is related to the amount of soil coverage that the cover crop provides. A hairy-vetch and rye mixture would provide nutrient benefits and improve fruit quality by reducing rot.
- Follow a good fungicide management program in the field. The same fungi that cause white speck, black rot and anthracnose also cause lesions on the leaves. If the leaves are protected from disease, the fruit will be less likely to become diseased. A good fungicide program also will maintain foliage health and keep sunscald at a minimum.
- Harvest mature fruit as soon as possible.
- Discard damaged and diseased fruit.
- Avoid wounding the fruit during harvest and transport.
- Store fruit in a cool, shaded and dry location.

What about washing fruit? Because many fungi infect fruit in the field (preharvest) or are seedborne (Fusarium fruit rot), washing the fruit won’t eliminate the pathogens. Also, the wash water is an excellent way to spread the pathogen from fruit to fruit. However, previous research has shown that for cantaloupe, a field fungicide program combined with a one minute immersion of fruit in 135° F water was successful in reducing rot. Unfortunately no one has looked at this treatment on pumpkins.
If you do not plan to harvest pumpkins for several weeks, it is important to continue to protect pumpkin foliage. High levels of downy mildew and powdery mildew are present in the Mid-Atlantic. Downy mildew can cause very rapid defoliation and result in sunscald, and powdery mildew will damage handle and fruit quality. For management of downy mildew see Issue 23 of the Weekly Crop Update (http://www.rec.udel.edu/Update07/Volume15, Issue23.htm).

To manage powdery mildew apply a protectant such as chlorothalonil plus Nova at 5 oz/A or chlorothalonil plus Procure at 8 oz/A in alternation with either Sulfur 80W at 4 lb/A or chlorothalonil plus Pristine at 12.5 to 18.5 oz/A. Sulfur can cause phytotoxicity, so use caution and read the label. Remember that coverage of foliage is important for optimum results.

The following sprays may provide some suppression of the fruit rot phase of Phytophthora blight:

- Forum 4.18 SC at 6.0 fl oz/A (tank mix with another fungicide that has activity on Phytophthora blight such as fixed copper)
Ranman 400 SC at 2.75 fl oz/A (tank mix with an adjuvant, do not tank mix with copper)

Tanos 50 WDG at 8 - 10 oz/A.

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Some Mid-Atlantic Thrips Survey Results -
Jerry Brust, IPM Vegetable Specialist, University of Maryland; jbrust@umd.edu

As I have alluded to in previous WCU articles I have been conducting a thrips survey on various vegetable and fruit (mostly strawberry, brambles and grapes) crops throughout the spring and summer in Maryland, southeastern Pennsylvania, eastern and southern Delaware and eastern Virginia. This study looked at the number and, maybe more importantly, the species of thrips on vegetables. There is a great deal of information and I am still looking at samples, but there are a few things that really stood out in the survey that I would like to quickly report.

Frankliniella tritici, Eastern flower thrips was the most common thrips species throughout the spring and the month of June making up >80% of most samples. F. fusca, tobacco thrips, was the next most common species at about 12-15% of samples, and the remaining 5-8% was made up of various thrips species, including Thrips tabaci, onion thrips and F. occidentalis, Western flower thrips (WFT). However, in July there was a population shift that took place rather rapidly, i.e., over a few weeks, with Western flower thrips becoming the major thrips species found in vegetables like tomato, pepper, pumpkin, and watermelon, but not onion (onion thrips was still the most common species in onions). Populations of WFT went from 2-12% to 50-80% of the thrips found on the farms. Along with this population shift came problems with control in August. Most growers used pyrethroids that give good control of thrips and mites when these pests are at low to moderate populations, but once their populations increase or WFT becomes more prevalent other miticides or thrips controls should be used. This population shift did not take place everywhere in the survey area. It occurred in southern and eastern Maryland and Virginia with a few farm sites in southeastern Delaware. I did not see this shift take place north of Baltimore, MD, although a few specific farms in this area did have a small shift to WFT. The shift seemed to be greatest on farms that had a number of high tunnels that were in constant use (i.e., growing strawberries early and then tomatoes or other crops later in the summer). WFT also were found earlier in the season in areas with many high tunnels. Growers at these shifted-population areas reported more problems with thrips damage than growers whose crops maintained a constant thrips species profile. Growers that used spinosad and, where allowed, Monitor saw a significant decrease in thrips problems.

Another surprising observation was the large number of thrips I found early in the spring on the foliage of vegetable plants. In most cases this was favored by the presence of pine pollen, a good source of food for thrips, in large quantities on the vegetable foliage, and the lack of spring rains to wash the pollen off the leaves (I discussed this in an article in Volume 15, Issue 10 of WCU http://www.rec.udel.edu/Update07/Voume15,Is sue10.htm ). I also found thrips (almost all were Eastern flower thrips) in large numbers in brambles (3-12/fruit) and grapes (10-40/cluster). How much damage, if any, they were causing is still up for discussion, and has prompted me to conduct a thrips/brambles study with some interested growers and consultants next year.

With the warmer winters we have been experiencing there is a high probability that thrips are over-wintering in our area. High tunnels then allow these small over-wintering populations access to some of their preferred host crops very early in the season. In areas where the shift to WFT populations appears to be taking place there is the potential for greater thrips problems in the coming years. This will be especially true on farms and in areas that spray frequently with insecticides. Vegetable growers should be watching for these potential problems with thrips in the coming years. I’ll talk more about the results of the survey in upcoming winter meetings.
I would like to thank the Northeastern Integrated Pest Management Center for helping fund this survey. It is difficult to obtain funding for survey projects, but without these studies we lose valuable information that aids in our ability to anticipate potential problems.

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**Changes to the Good Agricultural Practices and Good Handling Practice (GAP&GHP) Audit Verification Program**

The following notice was forwarded by Cliff Hudson at DDA, clifford.hudson@state.de.us, (302) 698-4544.

**Notice to the Industry**

In 2001 the Agricultural Marketing Service Fruit and Vegetable Programs, in cooperation with its state partners developed the “Good Agricultural Practices & Good Handling Practice” (GAP&GHP) Audit Verification Program. This Voluntary program utilizes an audit checklist developed from the Food and Drug Administration’s “Guide to Minimize Microbial Contamination of Fresh Fruits and Vegetables” to assess whether a facility is adhering to the recommendations made in the “Guide.”

Many retailers are requiring that their suppliers be 3rd party audited to show adherence to good agricultural practices and/or good handling practices. In addition, the USDA Commodity Purchase programs require that their contractors be audited prior to selling their products to the Federal Government. After a review of the current GAP&GHP program, and evaluating its effectiveness for its users, the Fresh Products Branch (FPB) is making the following changes to the program effective October 1, 2007.

- A minimum of one(1) additional unannounced audit may be performed on any farm or facility that wishes to participate in the USDA GAP&GHP Program. The total number of additional unannounced audits will be based on the length a facility is in operation. This is being done to verify that a comprehensive food safety program has been implemented and is being followed throughout the growing and packing season
- A written food safety plan must be available for review prior to initiation of an audit.
- The sections of the checklist audited will be determined by USDA in collaboration with the participant.
- A participant’s results will only be posted when all scopes audited receive a passing score, or any score if specifically requested in writing by a participant.
- If deficiencies are found that result in a failure of the audit, corrective actions will be required in order to request continuance on the program.

For further information on the GAP&GHP program contact Michael Morrelli, Head of the FPB’s Field Operation Section at 800-811-2373 or (202) 720-2482.

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**Tribute to Dr. James G. Kantzes**

Kate Everts; Vegetable Pathologist, University of Delaware and University of Maryland; keverts@umd.edu

Dr. James G. Kantzes, Vegetable Plant Pathologist at the University of Maryland died Saturday, Sept. 8 in Salisbury. Dr. Kantzes served the farmers of Maryland and Delaware through his work at the Lower Eastern Shore Research and Education (LESREC) Vegetable Research Farm. He retired in 1994 after 42 years of solving vegetable disease problems. During his career he mentored many graduate students who themselves went on work on vegetables in the Mid-Atlantic. He studied disease management for numerous vegetables including snap beans, corn, tomatoes, pumpkins, watermelon and cantaloupe. Those who knew him remember him for his vast knowledge of plant pathology and his generous spirit.

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Agronomic Crops

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

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

Soybeans
In general, the decision to treat for corn earworms should have been made by now. If you have not scouted, be sure to check the latest planted fields. We still have not found any diseased worms; however, we are finally starting to see a decline in trap catches so hopefully we will not see another hatch. In general, control has been good with all materials used — especially if treatments were applied to small worms and the correct rate was used. If a second spray was needed, it was due to a re-infestation resulting from the heavy, extended egg laying period. If you sprayed last week for the first time, you will want to re-check fields this week to be sure you do not have another hatch of larvae.

Small Grains
Be sure to sample all fields at emergence for aphids, true armyworm and fall armyworm feeding. In past years, we have seen economic damage from all three insect pests.

When it comes to armyworm, we have seen fields destroyed by armyworms in past years, especially in no-till situations. In many cases it has been true armyworm although fall armyworm can also cause damage. Although there is no threshold available, you will need to watch for larvae feeding on small plants. Since there have been reports of grass hay fields being destroyed by armyworms in Delaware and Maryland, you will want to watch fields for both armyworm species since damage can occur very quickly.

As you make plans for small grain planting, you should also consider the following factors when making a treatment decision for aphids. In general, cooler summer temperatures with adequate rainfall followed by a warm, dry fall are conditions that favor aphid development in small grains, especially in early planted fields. Early fall infestations of the greenbug aphid (which causes direct damage to small grains) are favored by cool, late summer conditions. Since we have recently seen an increase in aphid activity and have had a few periods of cooler weather recently, all fields should be checked this fall for aphids.

Factors that increase the potential of a return from applying an insecticide to control aphids and to reduce barley yellow dwarf virus (BYDV) infection in wheat include:
- Normal-cool summer temperatures with adequate rainfall
- Intensive wheat management including high fertility
- Use of BYDV susceptible varieties
- Planting before the Hessian fly free date
- A late, warm fall

The potential for viral transmission is impossible to predict. Two seed applied materials, Gaucho and Cruiser, are available as a preventative treatment for aphid control in wheat and barley. If you plan to scout for aphids, as a general guideline a foliar treatment should be considered if you find 10 aphids (especially winged forms) per linear foot of row. However, if you have had BYDV in your area, you will want to lower this number based on information from the South where BYDV is more prevalent. In states to the south they are using thresholds as low as 1-3 per foot of row or in some cases do not feel comfortable with any threshold. Direct damage from greenbug aphid has also been an issue in recent years. Be sure you plan to sample your fields at emergence for this pest. Although we do not have any thresholds developed in our area for greenbug, thresholds from areas to the south say a treatment will be needed in the fall if you find 10 aphids per foot of row.
**Agronomic Crop Diseases - Bob Mulrooney;**  
*Extension Plant Pathologist; bobmul@udel.edu*

**Soybean Rust Update**
This will be the last soybean rust report for WCU and so far soybean rust has not been found north of southwest Georgia in the east. Most of the soybean rust continues to be found in AR, OK, TX, LA and the Gulf States. Fortunately most of the Delmarva full season crop is past being affected by soybean rust. Beans that have reached R6 should not be impacted if soybean rust were to appear at this time. To date, only kudzu and soybeans have been infected. There is no reason to apply fungicides to soybeans for soybean rust at the present time. Continue to check late season soybeans and double crop beans that are in the R3-R5 growth stages. Current conditions are favorable for infection if the fungus spores were to arrive. The latest tropical disturbance will not pose a threat as far as bringing soybean rust spores to the East Coast. Our late season sentinel plot soybeans are continuing to be monitored each week and will be until there are no green leaves left. I wanted to thank all our cooperators that have allowed us to monitor their fields and the support that Extension, the Delaware Dept. of Ag and USDA have received from growers and the soybean industry for our soybean rust and soybean aphid detection and control programs. If anything should change concerning soybean rust, we will be contacting the farm community through the county Extension offices, the media and email lists. Once again we are probably not at risk from soybean rust but keep current on new developments by checking the IPM PIPE website for information at [www.sbrusa.net](http://www.sbrusa.net).

**Small Grains**
Be sure to plant fungicide treated seed for control of loose smut and common bunt, especially if you saved your own seed for planting. Select varieties that are high yielding as well as resistant to powdery mildew, leaf rust and stripe rust.

**Osprey Winter Wheat - Mark VanGessel;**  
*Extension Weed Specialist; mjv@udel.edu*

Osprey is registered for grass weeds, including annual ryegrass, in winter wheat. However, Osprey does control a number of broadleaf weeds that are common in our area. **Osprey is not labeled for barley.** Application timing is emergence to jointing of wheat or 2 leaf to 2-tiller grasses. Osprey requires a non-ionic surfactant plus nitrogen. Fertilizer nitrogen (28 to 32% N solutions) should be used at 1 to 2 qt/A. Ammonium sulfate (AMS) can be used at 1.5 to 3 lb/A. Osprey can be applied with methylated seed oil. Osprey is used at 4.75 oz wt/A. Osprey is not labeled for use with liquid fertilizer carriers. The label states that liquid fertilizer solutions should be no more than 15% of the spray carrier volume. Nitrogen fertilizer greater than 15% of the spray volume should not be applied within 14 days of the Osprey application which makes timing of spring applications difficult. As a result, fall applications are more appropriate than spring. Osprey can be tankmixed with Harmony GT and Harmony Extra (as well as other herbicides), but tankmixtures with Banvel/Clarity or 2,4-D will reduce grass control. The grasses specifically mentioned on the label that are important in our region are annual ryegrass (it will not control volunteer grain rye), annual bluegrass, and roughstalk bluegrass. The label lists brome species as suppression. Broadleaf activity is good on wild radish and wild mustard plus suppression of henbit and common chickweed. UD has tested Osprey for ryegrass the past two to three years with favorable results. Soybeans can be planted 90 days after treatment and refer to the label for other crops.
Be Sure to Use a Burndown with No-Till Small Grains - Mark VanGessel, Extension Weed Specialist; mjv@udel.edu

More and more fields are being planted as no-till small grains. These fields need a non-selective herbicide prior to emergence (either Gramoxone or glyphosate). Too often, these fields look “clean” at planting time but numerous weeds have emerged and are quite small. These weeds are much easier to control prior to planting than later. Harmony GT or Harmony Extra are not replacements for these non-selective herbicides.

Fall Herbicide Treatments for Next Year’s No-Till - Mark VanGessel, Extension Weed Specialist; mjv@udel.edu

Fall herbicide treatments have been discussed as options for no-till crops. The idea is to apply an herbicide this fall that will control existing weeds and possibly provide residual weed control so that fields do not have lots of vegetation next spring. Less vegetation in the spring allows the soil to warm up faster and conserve moisture. This practice has worked in many of the Midwest states, but their winters are colder and often with more snow cover. We have looked at various herbicides the past few years for no-till soybeans. Products tested include Valor, Canopy EX, and Express. In our trials the fall treatments were applied with 2,4-D, Gramoxone, and/or Banvel to be sure plants that emerged in the early fall were controlled. Applications were made in late October to mid-November. Most of the products provided some control when evaluated in March, including Gramoxone or glyphosate alone. The remaining weeds were small and less vigorous. However, as the spring progressed Valor and Express became much less effective and allowed for spring germination of many species. Those plants that were present were large by early May and, as a result, non-selective herbicide was needed before soybean planting. However, fall treatments helped to conserve spring moisture and provided for a better soybean stand when rainfall was limited. In 2006 and 2007, Canopy EX applied in the fall with Gramoxone or glyphosate provided excellent weed control up to the time of soybean planting (including horseweed). Canopy EX restricts your rotation to allow only soybeans the following spring.

Fall treatments should be applied while the plants are still actively growing. If you are considering a fall herbicide program, be sure to consider all pros and cons, including resistance management.

Volunteer Rye Cannot Be Controlled in Small Grains - Mark VanGessel, Extension Weed Specialist; mjv@udel.edu

There have been a considerable number of fields with rye-strips planted for vegetables in some areas, and these fields are very convenient to plant in small grains in the fall. However, keep in mind that there is no herbicide available to control volunteer rye in wheat or barley. There are a few herbicides that will control or suppress Italian (or annual) ryegrass in these crops, but they will not control grain rye used for wind breaks. Therefore, if the windbreaks were allowed to produce seed this year, you can expect the rye to act as a competitive weed in your small grains. Rye seeds generally germinate the same year they are produced, so it is not a long-term problem. However, it can be an issue if you planted rye strips last fall and then plant small grains this fall.

Fall Weed Control in Pastures and Hay - Quintin Johnson, Extension Associate - Weed Science; quintin@udel.edu

Fall provides an excellent opportunity for perennial weed management with herbicide applications. Most herbicides labeled for use in pasture are translocated, or moved to various parts of the plant. As fall approaches, perennial weeds like curly dock, Canada thistle, horese nettle, pokeweed, and others are beginning to replenish stored carbohydrates in root structures to prepare for over-wintering and new spring growth. Translocated herbicides are able to reach the rooting structures more efficiently during this period, thus providing more effective perennial weed control. If weeds are still
drought-stressed, however, herbicide translocation may be slower or incomplete, which could result in less effective control of top-growth and/or rooting structures. Delay herbicide applications until after you receive adequate rainfall. Fall applications should be made at least 7 to 10 days before a mowing for greatest effectiveness. In well established perennial weed populations, multiple years of good weed control will be needed to reduce significantly the rootstock of perennial weeds.

There are several things that must be considered when choosing an herbicide for pastures or hay fields including: forage species grown; weed species present; risk of herbicide contact with desirable plants through root uptake, drift, or volatility; residues in composted straw or manure; herbicide rotational, over-seeding, grazing, or harvest restrictions; and cost. Consult your local cooperative extension agent or industry representative for help with these considerations, and be sure to follow all precautions and restrictions on herbicide labels.

The “Pasture and Hay Weed Management Guide” for Delaware is available from the University of Delaware Cooperative Extension. Contact your local county agent for a printed copy, or access a pdf version on-line at http://www.rec.udel.edu/weed_sci/WeedPublicat.htm.

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

USDA’s September Supply/Demand Report Highlights

Corn Analysis
U.S. corn production for the ’07/’08 marketing year is now forecast at 13.308 billion bushels, 254 million bushels larger than last month’s estimate. The production forecast is based upon a national corn harvest of 85.4 million acres at 155.8 bushels per acre. The September report increased the national corn yield by 3 bushels per acre from the August estimate. The corn balance sheet reflects a 5 million bushel increase in beginning stocks, a 100 million bushel increase in the estimate for feed and residual use, a 100 million bushel increase for exports, a 100 million bushel decrease in food, seed and industrial use, and a 100 million bushel decrease in ethanol for fuel resulting in an increase in ending stocks for U.S. corn of 159 million bushels from one month ago, now placed at 1.675 billion bushels. For comparison, the carry in from the ’06/’07 marketing year was estimated at 1.142 billion bushels. The season average farm price estimate was left unchanged at $2.80 to $3.40 per bushel. The season average farm price for the ’06/’07 marketing year was $3.03 per bushel, as compared to the $2.00 season average price from the ’05/’06 marketing year when ending stocks were at 1.967 billion bushels.

Soybean Analysis
U.S. soybean production is now forecast at 2.619 billion bushels for the ’07/’08 marketing year, 6 million bushels less than the August estimate. The ’07 soybean harvest is expected to come from 63.3 million acres harvested at a national average yield of 41.4 bushels per acre, one-tenth of a bushel less than the previous month. Ending stocks for soybeans, now estimated at 215 million bushels, are 5 million bushels less than the August estimate. The estimate for the season average farm price was increased by 10 cents per bushel on both ends of the price range, $7.35 - $8.35 per bushel. For comparison, the season average farm price for the ’06/’07 marketing year when ending stocks were at 555 million bushels was $6.40 per bushel.

Soybean oil ending stocks are now projected at 1.735 billion pounds, down 490 million pounds from a month ago. Soybean oil ending stocks are currently projected to be about 845 million pounds less than ending stocks for the ’06/’07 marketing year. Soybean meal ending stocks are projected at 300 thousand short tons, unchanged from last month and the same as last year.

Wheat Analysis
The changes made from August to the U.S. wheat balance sheet included a 15 million bushel decrease in imports (on the supply side), food and seed uses were increased by 10 million bushels, and 2 million bushels, respectively. Feed and residual use was reduced by 10 million bushels, and exports were increased 25 million
bushels (on the demand side). As a result ending
stocks were reduced by 42 million bushels from
the August estimate. The season average farm
price was increased 40 cents per bushel on both
ends of the price range and is now placed at
$5.50 - $6.10 per bushel.

World wheat production is projected to be lower
this month and is now estimated at 112.36
million metric tons, a reduction of 2.4 mmt from
last month. A year ago world wheat ending
stocks were 125.08 mmt. In the '05/'06
marketing year world ending stocks for all wheat
were at 149.16 mmt.

Marketing Strategy
Should one consider booking some of next year’s
crop at current price levels? New crop 2008 corn,
soybean, and wheat prices are at historically
high levels. An old marketing adage says that
“when faced with high prices, sell early and sell
often”. Considering that Dec. ’08 corn futures are
currently trading at $4.01; Nov ’08 soybean
futures at $9.24; and July ’08 wheat futures at
$5.90 per bushel an opportunity exists to get a
portion of next year’s crop prices locked in, if
not done so already. The next question is
generally how much? Answer: At these price
levels the answer to that question has to be
around 20% of intended production. For
technical assistance on making grain marketing
decisions contact Carl L. German, Extension
Crops Marketing Specialist.

General

Fall Weed Scouting - Mark VanGessel,
Extension Weed Specialist; mjv@udel.edu

Fall is an important time to take stock of how
effective your weed programs were this year.
Success in improving or modifying your weed
management program for next season is going to
depend on your knowledge of weeds in that
field. This fall, when it is fresh in your mind,
take note of which weeds were present in the
field, how heavy the infestation was, and where
those patches were located. Taking notes as you
are combining may be the best time to locate
these weeds. Also, note size of the weeds. If the
weeds are small and did most of their growing
after the crop began to dry down, they will not
impact yield and they will not produce many
seeds that can plague you next year. These
weeds were either suppressed by your herbicide
program or emerged after your herbicides had
been played out. These weeds are of little
consequence. On the other hand, note those
weeds that are large and competed with the
crop all season.

Here are things to consider if a field was weedy
at harvest. First, if a weed was not controlled
review the label and extension information to be
sure that the weed species is supposed to be
controlled by the herbicide(s) you used. If the
herbicides you used are not effective then you
may need to switch or include another herbicide
in your program. Also, with all the lack of rain at
times this season, poor herbicide performance
from your residual herbicides was probably due
to the herbicide not being moved into the soil
(“not activated”). Finally, if the weed was
supposed to be controlled by your program, and
the herbicide was a triazine or an ALS-inhibiting
herbicide see your county extension agent to
discuss the potential of herbicide-resistant
weeds. ALS-inhibiting herbicides include Accent,
Steadfast, Exceed, Permit, Sceptor, Pursuit, or
Harmony GT etc. Finally, with glyphosate, new
reports of glyphosate-resistance have shown up
in other areas of the US, but if more than one
species was not controlled in your field, it is less
likely to be a resistance problem.

If perennials are a problem, scouting gives you a
chance to locate the patches and identify areas
to spot-spray with a post-harvest treatment. In
addition, you can plan for next season to help
determine if a spot-treatment is appropriate or
if the perennials are wide-spread and you need
to treat the entire field.

Fall Control of Perennial Weeds - Mark
VanGessel, Extension Weed Specialist;
mjv@udel.edu

Fall is the most practical time to treat perennial
weeds because it is the time that plants can
move the herbicide to the roots where it will do
the most good. When considering fall weed control the emphasis should be on what the patch of weeds will look like next spring or summer not the amount of dead stems this fall. In addition, it is important to consider that a fall application will not eradicate a stand of perennial weeds; rather, the fall application will reduce the stand size or the stand vigor the next year. Fall application of glyphosate is the most flexible treatment for most perennial weeds such as artichoke, bermedaggrass, Canada thistle, common milkweed, common pokeweed, dock, hemp dogbane, hornennettle and johnsongrass. A rate of 1.5X of the normal rate is the most economical; higher rates generally do not improve control (if 22 oz is normally used then 34 oz/A; if 1 qt is usually used then 1.5 qts/A). Banvel at 2 to 4 pints is also labeled for artichoke, bindweeds, dock, hemp dogbane, hornennettle, milkweeds, pokeweed, or Canada thistle. (Planting small grains must be delayed after Banvel application - 20 days per pint of Banvel applied.)

Fall herbicide applications should be made to actively growing plants. Allow plants to recover after harvest before treating them. Allow 10 days after treatment before disturbing the treated plants. Consider the options of spot treating in a standing crop; keeping the combine header as high as possible so the weeds are quicker to recover; or combining around the weed patches and then spraying those patches immediately after harvesting. Weed species differ in their sensitivity to frost; some are easily killed by frost (i.e. hornennettle) others can withstand relatively heavy frosts. Check the weeds prior to application to be sure they are actively growing.

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Announcements

**Wye Pumpkin & Sweet Corn Twilight**

Wednesday, September 26  4:30 p.m. – dark
Wye Research & Education Center
Queenstown, MD

- University specialists will speak about insects and diseases of pumpkin and sweet corn and current research on these crops.
- See 15 varieties of pumpkins.
- Taste four late season BT sweet corn varieties.

Registration is not required. Light fare will be served.

Questions? contact Mike Newell 410-827-7388 or email mnewell@umd.edu

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**Pesticide Safety Training and Testing for Delaware Pesticide Applicators Certification**

September 18 & 19, 2007
and
December 3 & 4, 2007

Del Tech Terry Campus, Dover, DE
Room 400A Corporate Training Center

**Training** — September 18th and December 3rd
8:30 a.m. – 5:00 p.m.

**Exam** — September 19th and December 4th
8:00 a.m. – 11:00 a.m.

You must register for the EXAM by calling DDA at 1-800-282-8685.

For more information and the new on-line training go to: [http://ag.udel.edu/extension/pesticide/index.php](http://ag.udel.edu/extension/pesticide/index.php)

Questions? contact:
Susan Whitney King (302) 831-8886 or
Larry Towle 1-800-282-8685
For Current Agricultural Information from the UD Kent Co. Extension Office Visit the Internet Site

As many of you already know, I (Gordon Johnson) have been writing a weblog with daily updated information for the agricultural community in mid-state. It contains articles, pictures, and research results with topics including crops (production and management of grain crops, hay and pasture, vegetables, fruits), active pests and their control, poultry, dairy, livestock, marketing, farm management, farm safety and health, and many others of interest. For readers of the Weekly Crop Update that want continued updated information in the fall and winter, I invite you to go to this blog each week. I will be posting pest and crop production information, timely crop topics, and reports of relevant research with new material daily. The web address is www.kentagextension.blogspot.com

Recent Topics:
- Grubs in grass hay and pasture
- Reducing harvest losses in soybeans
- Corn earworm (podworm) update
- Implications of higher wheat prices
- Recommended grazing heights
- Low cutting height can reduce orchardgrass stands
- Greenhouse heater checklist
- Acorn poisoning of livestock
- September beef management calendar
- Vegetable Growers Association of Delaware seeking input for annual meeting
- Quality living space for calves and heifers
- Green June beetles, a grub species that can cause damage in grass hay and pastures
- Herbicides for grass weed control in small grains
- Fall herbicide treatments for reducing weeds in field crops the following year
- Control marestail
- Corn yields from very bad to good
- Fall weed management in grass hay and pasture
- Eastern black nightshade as a poisonous contaminant of forage and grain
- Grain storage preparation and maintenance saves quality
- Swine disease having a major impact in China
- Will wheat prices hold?
- Grain marketing – what to do in the event of a production shortfall

High tunnels for extending vegetable/fruit production and protection against wind and rain
What smells from silage can tell you
Characteristics of burn-down herbicides for small grains

Anatomy of a Grazer: An Equine Pasture Walk
Saturday, September 15  9:30 a.m. – 2:00 p.m.
Chateau Country Stables at Mt. Cuba Center, Inc.

This program will cover the hows and whys of equine pasture management.

Dress comfortably for a pasture setting! Bring your own lawn chairs. Lunch is provided.

If it rains, we will adjust the program and move inside a hay barn.

We will apply for both DE Pesticide and Nutrient Management re-certification credit.

This meeting is free and everyone interested in attending is welcome.

To register, for more information, or special consideration in accessing this meeting, please call the NRCS office in advance, at (302) 832-3100.

Annual Equine Conference
Saturday, November 10  10:00 a.m. – 3:00 p.m.
University of Delaware Carvel Research and Education Center, Georgetown, DE

The National Research Council’s updated nutrient requirements for horses was released last spring. Learn about the changes since the last edition and their effects on how we should be feeding our horses. Some time will be spent discussing feeding the senior horse.

For more information contact Susan Garey at truehart@udel.edu or (302) 730-4000 or Dr. David Marshall at davidlm@udel.edu or (302) 831-1340.
Mid-Atlantic Crop Management School
Tuesday, November 13 – Thursday, November 15
Princess Royale Hotel and Conference Center
Ocean City, MD

You can register via US mail, FAX, or at the following web site:
https://crayola.hcs.udel.edu/conf/registration/crop_management/

If you have questions, please contact Greg Binford by phone (302) 831-2146, FAX (302) 831-0605, or e-mail binfordg@udel.edu

Delaware Agriculture Week
Monday, January 7 – Saturday, January 12, 2008

The University of Delaware Cooperative Extension, Delaware State University Cooperative Extension and the Delaware Department of Agriculture are again cooperating to organize a week of agricultural-related events.

The following General Agenda outlines the various meetings and events that are planned and their approximate times. Most will take place at the Delaware State Fairgrounds. The associated trade show will take place in the Dover Building from Monday January 7th to Thursday January 10th.

A complete, detailed program will be available online by November 21st and the completed program will be mailed out in December. Delaware and Maryland Pesticide Recertification credits, Nutrient Management credits and CCA credits will be offered.

Check the website for updates:
http://www.rec.udel.edu/AgWeek/home.htm

Ag Week General Agenda

Monday, January 7
Vegetable Growers Assn. of Delaware Annual Meeting
State Fairgrounds
General Session - 9 to Noon
Fresh Market/Vine Crops - 1:30 to 4 PM

Vegetable Production Seminar for Small, Specialized, or Part-Time Producers
State Fairgrounds - 6 to 9 PM

Winning the Game – Post Harvest and Pre-Harvest Grain Marketing
State Fairgrounds 9 AM to 4 PM

Equine Pasture Program
State Fairgrounds - 6 to 9 PM

Poultry Nutrient Management
Carvel REC, Georgetown - 6 to 9 PM

Tuesday, January 8
Vegetable Growers Assn. of Delaware Annual Meeting
State Fairgrounds
Processing Crops Session - 9 AM to Noon
Native Pollinators Workshop – 1:30 to 4 PM

Delaware Vegetable Growers Assn. Banquet
Harrington Fire Hall - 6PM

Hay and Pasture Day-Time Sessions
State Fairgrounds - 9 AM to 4 PM

Hay and Pasture Evening Session
State Fairgrounds - 6 to 9 PM

Poultry Nutrient Management
State Fairgrounds - 6 to 9 PM

Small Ruminant Session
State Fairgrounds - 6 to 9 PM

Wednesday, January 9
Dairy Educational Sessions
State Fairgrounds - 9 AM to 4 PM

Grain Marketing Strategies Conference
State Fairgrounds – 9 AM to Noon

Youth Program
State Fairgrounds – 9 AM to ?

Equine Nutrient Management Session
State Fairgrounds - 6 to 9 PM

Aquaculture Session
State Fairgrounds - 6 to 9 PM
Thursday, January 10
Agronomy/Soybean Sessions
State Fairgrounds - 9 AM to 4 PM

Mid-Atlantic Soybean Association Dinner and Annual Meeting
State Fairgrounds - 6 PM

Greenhouse Session
State Fairgrounds – 9 AM to 4 PM

Beef Cattle Pasture Session
State Fairgrounds – 6 to 9 PM

Friday, January 11
Friends of Ag Breakfast
Harrington Fire Hall – 7:15 AM

Ag Policy Session
Harrington Fire Hall – 9 AM to Noon

Saturday, January 12
Standardbred Owners Seminar
State Fairgrounds - 9AM to Noon

Delaware Organic Growers Association
Paradee Center, Dover - 9 AM to 4 PM

Keynote speaker:
Carolyn Cooksie, Deputy Administrator for Farm Loan Programs USDA, Farm Service Agency

Website:
The Women in Ag website will be updated early this fall with additional conference information, including workshop topics and additional speaker information and registration information.
http://ag.udel.edu/extension/kent/womeninag.htm

For more information:
Contact Laurie Wolinski at (302) 831-2538 or Lgw@udel.edu

2008 Annual Regional Women in Agriculture Conference
Thursday, January 24 – Friday, January 25, 2008
Dover Downs Hotel and Conference Center
Dover, DE

2008 will mark the 7th Annual Women in Ag Conference held in Delaware. The conference goals are to offer women who are involved with agriculture an opportunity to come together to learn about current issues and topics so they can make informed decisions concerning their agribusinesses and family lives.

Women are increasingly recognized as farm operators and in many cases, the primary operator on their farms. Statistics were collected on a national level in 2002 regarding women in agriculture, and will be collected again in 2007. In 2002, National Agricultural Statistics Service (NASS) reported that the census of agriculture counted 2,128,982 farms, and approximately 27.2 percent of those farms were operated by women.

For more information contact:
Gordon Johnson, gcjohn@udel.edu, (302) 730-4000

25th Mid-Atlantic Direct Marketing Conference and Trade Show
Wednesday, February 6 – Friday, February 8, 2008
Sheraton Inn, Dover, DE

For more information contact:
Carl German at (302) 831-1317 or clgerman@udel.edu

Kent County Crop Masters 2007-2008

The Kent County Crop Masters series will begin in December and continue in February and March. This year we will cover the following topics:

- Being a master irrigator
- Hay, straw, and biomass as profit centers
- Sod as a farm enterprise
- Advances in breeding of corn, soybeans, and small grains and quality traits in field crops & vegetables
- Pesticide resistance & emerging pest problems
- Organic grain and processing vegetables
- Advanced soil fertility and nutrient utilization
- New tools for crop and field recordkeeping
- Diagnosing problems in crops

For more information contact:
Gordon Johnson, gcjohn@udel.edu, (302) 730-4000
Looking For Derelict Poultry House Sites

As part of my PhD research project, I am looking for several sites where old poultry houses have recently been torn down (in the last 3 months). I would like to do research on plantings that can be used on these sites to extract the residual mineral nutrients in the pads (floors) of these houses left from the years of poultry production. If you have one of these sites, and would be willing to cooperate in research on the best plants to use to reclaim these sites (3 years will be needed to complete experiments), please contact: Gordon Johnson, gcjohn@udel.edu, (302) 730-4000

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of September 6 to September 12, 2007

Readings Taken from Midnight to Midnight

Rainfall:
0.02 inch: September 11

Air Temperature:
Highs Ranged from 91°F on September 10 to 81°F on September 12.
Lows Ranged from 72°F on September 11 to 57°F on September 12.

Soil Temperature:
82°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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