WEEKLY CROP UPDATE
UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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Vegetable Crops

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

Lima Beans
Continue to scout for spider mites, stink bugs, plant/lygus bugs and corn earworm. Early detection and treatment will be needed to achieve spider mite control. In addition, multiple sprays may be needed for mites, especially if populations are high at treatment time and/or numerous eggs are present. As soon as pin pods are present, be sure to watch carefully for plant bug and stinkbug adults and nymphs as well as corn earworm larvae. As a general guideline, treatment should be considered for plant bugs and stink bugs if you find 15 adults and/or nymphs per 50 sweeps. A treatment will be needed for corn earworm if you find one corn earworm larvae per 6 foot-of-row.

Melons
Continue to scout all melons for aphids, cucumber beetles, and spider mites. We continue to find fields with numerous "worm" species as well as cucumber beetle adults feeding on rinds of watermelons. The two most commonly found "worm" species are beet armyworms and yellow striped armyworm. It is important to know which pest is causing the damage to make a chemical selection. Materials that provide beetle control will not necessarily provide worm control, especially if you are finding beet armyworm in the field.

Peppers
Depending on local corn borer trap catches, sprays should be applied on a 7-day schedule once pepper fruit is ¼ – ½ inch in diameter. Be sure to check local moth catches in your area by calling the Crop Pest Hotline (instate: 800-345-7544; out of state: 302-831-8851) or visiting our website at http://ag.udel.edu/extension/IPM/traps/latestblt.html. You will also need to consider a treatment for pepper maggot. Be sure to watch carefully for beet armyworm larvae since they can quickly defoliate plants. In addition to beet armyworm feeding on leaves you should also watch for an increase in aphid populations. We are starting to find aphid populations increasing and they can explode quickly, especially where beneficial insect activity is low. As a general guideline, treatment may be needed if you find one or more aphids per leaf and beneficial activity is low.

Processing Snap Beans
As corn borer and corn earworm populations start to increase, you will need to consider treatments for both insect pests. Sprays are needed at the bud and pin stages on processing beans for corn borer control. As earworm trap catches increase, an earworm spray will also be needed at the pin stage. You will need to check our website for the most recent trap catches 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.

Sweet Corn
Continue to sample all fields from the whorl through pre-tassel stage for corn borers, corn earworms and fall armyworm. A treatment should be considered when 12-15% of the plants are infested. Since fall armyworm feed deep in the whorls, sprays should be directed into the whorls and multiple applications are often needed to achieve control. The first silk sprays will be needed for corn earworm as soon as ear shanks are visible. Be sure to check both blacklight and pheromone trap catches for silk spray schedules since the spray schedules can quickly change. Trap catches are generally updated on Tuesday and Friday mornings (http://ag.udel.edu/extension/IPM/traps/latestblt.html and http://ag.udel.edu/extension/IPM/thresh/silkspraythresh.html). You can also call the Crop Pest Hotline (in state: 800-345-7544; out of state: 302-831-8851).

Heat Affects Early Lima Beans

– *Gordon Johnson, Extension Vegetable & Fruit Specialist;* gcjohn@udel.edu

We are seeing heat effects on early planted lima beans again in 2012, with heavy bud, blossom, and pod drop. A split set is also present because of changes from high heat where pod set was limited to more moderate temperatures favoring pod set back to high heat again causing pod loss. Another problem is misshapen pods and irregular, dimpled, or misshapen seed which may be caused by incomplete pollination due to the heat or direct piercing/sucking insect damage to the seed.

Heat Effects on Vegetable and Fruit Crops

– *Gordon Johnson, Extension Vegetable & Fruit Specialist;* gcjohn@udel.edu

With excessive heat being an issue again in 2012, I wanted to reprint an article that I wrote in 2011 about heat effects in vegetable and fruit crops.

The plant temperature at which tissue dies is around 115°F. Normally, plant temperature is just above air temperature. However, plant temperature can rise to a critical level under certain conditions. Plants have 3 major ways in which they dissipate excess heat: 1) long-wave radiation, 2) heat convection into the air and 3) transpiration.

A critical factor is transpiration. If transpiration is interrupted by stomatal closure due to water stress, inadequate water uptake, injury, vascular system plugging or other factors, a major cooling mechanism is lost. Without transpiration, the only way that plants can lose heat is by heat radiation back into the air or wind cooling. Under high temperatures, radiated heat builds up in the atmosphere around leaves, limiting further heat dissipation.

Dry soil conditions start a process that can also lead to excess heating in plants. In dry soils, roots produce Abscisic Acid (ABA). This is transported to leaves and signals to stomate guard cells to close. As stomates close, transpiration is reduced. Without water available for transpiration, plants cannot dissipate much of the heat in their tissues. This will cause internal leaf temperatures to rise.

Vegetables can dissipate a large amount of heat if they are functioning normally. However, in extreme temperatures (high 90s or 100s) there is a large increase the water vapor pressure deficient (dryness of the air). Rapid water loss from the plant in these conditions causes leaf stomates to close, again limiting cooling, and spiking leaf temperatures, potentially to critical levels causing damage or tissue death.

Very hot, dry winds are a major factor in heat buildup in plants. Such conditions cause rapid water loss because leaves will be losing water more quickly than roots can take up water, leading to heat injury. Therefore, heat damage is most prevalent in hot, sunny, windy days from 11 a.m. to 4 p.m. when transpiration has been reduced. As the plants close stomates to reduce water loss, leaf temperatures will rise even more. In addition, wind can decrease leaf boundary layer resistance to water movement and cause quick dehydration. Wind can also carry large amounts of advected heat.

Photosynthesis rapidly decreases above 94°F, so high temperatures will limit yields in many vegetables and fruits. While daytime temperatures can cause major heat related problems in plants, high night temperatures have great effects on vegetables, especially fruiting vegetables. The warmer the night temperature, the faster respiration processes. This limits the amount of sugars and other storage products that can go into fruits and developing seeds.

Heat injury in plants includes scalding and scorching of leaves and stems, sunburn on fruits and stems, leaf drop, rapid leaf death, and reduction in growth. Wilting is the major sign of water loss which can lead to heat damage. Plants often will drop leaves or in severe cases will "dry in place" where death is so rapid, abscission layers have not had time to form.

On black plastic mulch, surface temperatures can exceed 150°F. This heat can be radiated and reflected onto vegetables causing tremendous heat loading. This is particularly a problem in young plants that have limited shading of the plastic. This can cause heat lesions just above the plastic. Heat lesions are usually first seen on the south or south-west side of stems.

High heat and associated water uptake issues will cause heat stress problems. As heat stress becomes more severe a series of event occurs in plants starting with a decrease in photosynthesis and increase in respiration. As stress increases, photosynthesis shuts down because closure of stomates stops CO_2 capture and increases photo-respiration. This will cause growth inhibition. There will be a major slow-down in transpiration (cooling process loss and internal temperature increase). As stress becomes more severe there will be membrane integrity loss, cell membrane leakage and protein breakdown. Toxins generated through cell membrane releases will cause damage to cellular processes. Finally, if stress is severe enough there can be plant starvation through rapid use of food reserves, inefficient food use, and inability to call on reserves when and where needed.

The major method to reduce heat stress is by meeting evapotranspirational demand with irrigation. Use of overhead watering, sprinkling, and misting can reduce of tissue temperature and lessen water vapor pressure deficit. Mulches can also help greatly. You can increase reflection and dissipation of radiative heat using reflective mulches or use low density, organic mulches such as straw to reduce surface radiation and conserve moisture. In very hot areas of the world, shade cloth is used for partial shading to reduce advected heat and total incoming radiation.

Sweet Corn Pollination Problems – *Gordon Johnson, Extension Vegetable & Fruit Specialist;* gcjohn@udel.edu

Growers are experiencing quality problems in sweet corn this year related to poor pollination as a result of high heat. This problem is more severe in less stress tolerant varieties and where irrigation is inadequate.

In corn silk elongation begins 7 to 10 days prior to silk emergence from the husk. Every potential kernel (ovule) on an ear develops its own silk that must be pollinated in order for the ovary to be fertilized and develop into a kernel. The silks from near the base of the ear emerge first and those from the tip appear last. Under good conditions, all silks for an ear will emerge and be ready for pollination within a span of 3 to 5 days and this usually provides adequate time for all silks to be pollinated before pollen shed ceases.

Pollen grains are borne in anthers, each of which contains a large number of pollen grains. The anthers open and the pollen grains pour out after dew has dried off the tassels. Pollen is light and can be carried considerable distances (up to 600 feet) by the wind. However, most of it settles within 20 to 50 feet. Pollen shed is not a continuous process. It stops when the tassel is too wet or too dry and begins again when temperature conditions are favorable.

Under favorable conditions, a pollen grain upon landing on a receptive silk will develop a pollen tube containing the male genetic material, develop and grow inside the silk, and fertilize the female ovary within 24 hours. The amount of pollen is rarely a cause of poor kernel set. Each tassel contains from 2 to 5 million pollen grains,

which translates to 2,000 to 5,000 pollen grains produced for each silk of the ear shoot.

Poor seed set is often associated with poor timing of pollen shed with silk emergence (silks emerging after pollen shed). Shortages of pollen are usually only a problem under conditions of extreme heat and drought. Extreme heat and desiccating winds can affect pollen germination on silks or pollen tube development leading to poor seed set. Insects that clip silks during pollination can cause similar problems.

Marginal Chlorosis on Cantaloupe Leaves – *Jerry Brust, IPM Vegetable Specialist, University of Maryland*; jbrust@umd.edu

I have been seeing and receiving a few samples of yellowing (chlorosis) around the margins of cantaloupe leaves (Fig. 1). There was no chlorosis between the veins and no marginal necrosis (these two symptoms would indicate molybdenum deficiency). The marginal chlorosis would indicate salt burn, which is a noninfectious problem that mostly affects cantaloupes. This yellowing at the leaf margin is likely the result of guttation, which is how plants exude water at the margin of the leaf. Water droplets from the plant accumulate at the edge of a leaf in the early morning. This water often contains organic and inorganic compounds, and mineral nutrients, especially potassium. As the water evaporates these compounds are left behind and concentrated at the leaf margin. Over time the high concentration of compounds shows up as a marginal yellowing called 'salt burn'. These deposits also can have a toxic effect on the gas exchange pores (the hydathodes) located at the leaf edges. Salt accumulation often is associated with foliar applications of nutrient solutions or pesticides during very hot, dry weather. Frequent copper applications when it is hot and dry also can result in distinct bands of yellow tissue around leaf margins (Fig. 2). Soil applied urea or ammonium nitrate fertilizers may contribute to the problem as well. In most cases there is no yield loss as a result of these symptoms and no control measures are needed; however there could be yield losses if salt burn is severe and widespread in the field.

Figure 1. Marginal chlorosis on cantaloupe leaves (arrows) caused by salt burn

Figure 2. Marginal chlorosis most likely caused by copper sprays and salt burn

Striped Cucumber Beetle Populations Still Very High – *Jerry Brust, IPM Vegetable Specialist, University of Maryland*; jbrust@umd.edu and *Karen Rane, Extension Specialist Entomology, University of Maryland* rane@umd.edu

We have seen very high populations of striped cucumber beetles on squash, pumpkins, cantaloupe, watermelon and other cucurbits over the last few weeks. These populations at times have reached over 20-30 beetles per plant. If a spray was missed or plants were not

thoroughly covered with an insecticide application the beetles would soon consume that unprotected area very rapidly (Fig. 1). This area is often times the base of the plant. This is especially true if the cucurbits are sprayed with an air-blast sprayer. While air-blast sprayers do a good job of covering leaves with material, they often do not do a great job of covering the base of a plant and heavy feeding can occur (Fig. 2). The feeding can lead to plants being girdled by beetles or can lead to bacterial wilt infection—even though the leaves of the plant show almost no feeding. This feeding by the beetles also opens the base of the stem to infection from soil organisms and greater rates of *Fusarium* and bacterial soft rots are possible. When beetle populations are this high the base of the plant, even more so than the foliage, needs to be protected from heavy feeding.

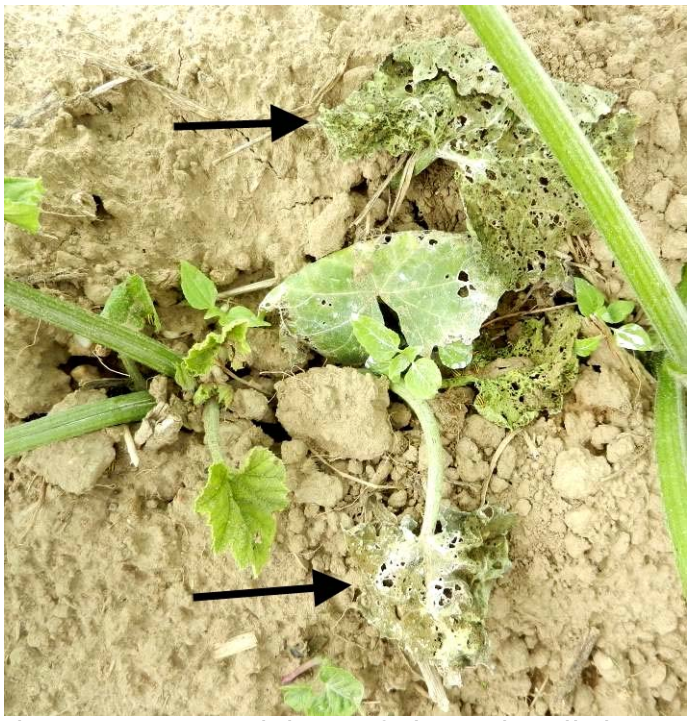

Figure 1. Two squash leaves fed upon heavily by striped cucumber beetles because of the lack of good spray coverage.

Figure 2. Base of pumpkin plants damaged by striped cucumber beetles due to poor spray coverage

Potato Disease Advisory #21 – July 26, 2012 - *Phillip Sylvester, Kent Co., Ag Agent*; phillip@udel.edu

Late blight Advisory
Location: Art and Keith Wicks Farm, Rt 9, Leipsic, Kent County, Delaware
Greenrow: April 20

Date	DSV	Total DSV	Accumulated P-Days	Spray Interval Recommendation
6/19-6/21	1	80	478	10-days
6/22-6/25	2	82	507	10-days
6/25-6/27	0	82	524	10-days
6/28-7/2	0	82	549	10-days
7/3-7/5	0	82	561	10-days
7/6-7/11	0	82	593	10-days
7/12-7/18	2	84	632	10-days
7/19-7/25	11	95	685	7-days

The spray interval recommendation is 7 days. Continue to scout for late blight and maintain spray programs if the plants are still growing. There have been no reports in Delaware and no recent reports of late blight on potato in the region. Visit http://www.usablight.org/ to see where late blight has been found on potato and tomato.

This is the last Potato Disease Advisory for the season.

Commercial fungicide recommendations can be found in the 2012 Delaware Commercial Vegetable Recommendations Guide at http://ag.udel.edu/extension/vegprogram/pdf/potatoes.pdf

Fruit Crops

Fruit Crop Insects – *Joanne Whalen, Extension IPM Specialist*; jwhalen@udel.edu

Spotted Wing Drosophila
Over the past couple of weeks, we have started to find spotted wing drosophila adults in traps placed in 6 locations throughout the state. The following new publications were recently developed by specialists at Penn State University and the University of Maryland.

Spotted Wing Drosophila, Part 1: Overview and Identification
http://pubs.cas.psu.edu/FreePubs/PDFs/xj0045.pdf
Spotted Wing Drosophila, Part 2: Natural History
http://pubs.cas.psu.edu/FreePubs/PDFs/xj0046.pdf
Spotted Wing Drosophila, Part 3: Monitoring
http://pubs.cas.psu.edu/FreePubs/PDFs/xj0047.pdf
Spotted Wing Drosophila, Part 4: Management
http://pubs.cas.psu.edu/FreePubs/PDFs/xj0048.pdf

Brown Marmorated Stinkbug
Emergency Exemption (Section 18) for BMSB Control in Apple, Peach, and Nectarine - On Friday, July 20, 2012, the EPA approved our Sect 18 request for the use of the pesticide bifenthrin on apples, peaches, and nectarines to help manage populations of the brown marmorated stink bug. The only bifenthrin products allowed under this Sect 18 are Brigade WSB (FMC's product), Bifenture EC and Bifenture 10DF (United Phosphorus, Inc. products). Please see the attached copy of the approval letter from EPA for use directions, rates and restrictions: http://agdev.anr.udel.edu/weeklycropupdate/wp-content/uploads/2012/07/12DE04signedauthorizationBifenthrin.pdf. You will also need a copy of the label before making any applications. The Section 18 label for Brigade is available online: http://agdev.anr.udel.edu/weeklycropupdate/wp-content/uploads/2012/07/26Jul2012BrigadeBSMBSection18DE.pdf. Please contact Dave Pyne at the Delaware Department of Agriculture or Joanne Whalen for more information.

Agronomic Crops

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

Alfalfa
Continue to scout fields on a weekly basis for leafhoppers and defoliators including corn earworm, webworms, fall armyworm and beet armyworm. Larvae must be small to achieve effective control. Defoliators can be destructive, especially during drought conditions. When defoliators are present, early harvest may eliminate the problem. Although there are no specific thresholds, as a general guideline if the crop is more than 2 weeks from cutting and 25 to 30 percent of the terminals are damaged, treatment is suggested.

Soybeans
Be sure to watch for defoliators in both full season and double crop soybeans. In full season soybeans, the defoliation drops to 10-15% defoliation at the bloom to pod fill stages. Double crop soybeans cannot handle as much defoliation as full season fields at the pre-bloom or pod-fill stages. In addition to our normal mix of defoliators (i.e. grasshoppers, green cloverworm, and Japanese beetles), be sure to watch for beet armyworm. There are reports of a few fields with beet armyworm in Virginia. Since beet armyworm larvae have been found for the last 3 weeks in pepper and watermelon fields in Sussex County we know it has migrated to our area. Corn earworm larvae can also be found at low levels in full season and a few double crop fields. With the drought stressed corn in our area, the potential for earworm populations may be higher this season.

During the winter season, we discussed the potential for a new insect pest of soybeans, the Kudzu Bug. This insect has been attacking soybeans in Georgia, South Carolina, North Carolina and now a number of counties in southern Virginia. The Delaware Soybean Board has provided us with funding for a survey for this insect pest, So far we have not detected any on soybeans or Kudzu. We will keep you posted on what we find. The following is a link to a webcast by Dr. Jeremy Greene from Clemson University. The webcast contains information on tentative treatment threshold recommendations, expected control with insecticides, the history of the distribution of the insect in the USA, identification of the life stages of the species, and data demonstrating potential yield losses due to Kudzu bug.
http://www.plantmanagementnetwork.org/edcenter/seminars/soybean/kudzu/

With the extended drought conditions in our area, we continue to find significant populations of spider mites in both full season and double crop fields as well as in irrigated fields. In most cases, infestations at this time are field wide, so edge treatments will not be effective. As we have learned in past years, drought will seriously stress plant growth, favor mite development and create plant growth conditions that make it difficult to achieve effective control. Early detection, rotation among available control options and multiple applications are often needed under drought stress conditions. Under high population pressure, a single treatment is often not adequate to kill all the life stages. Mite eggs will not be affected by the initial knockdown/control of adults and nymphs and thus hatch after a few days. The only available materials for spider mite management in soybeans in Delaware are dimethoate, Lorsban (as well as generic chlorpyrifos products), bifenthrin (numerous generics available) and Hero. (*Be sure to read all labels before spraying for restrictions and rates*). Unfortunately, we do not have a selective miticide labeled for soybeans like we do in vegetable and fruit crops. The following is a summary of what we have seen so far this season as well as a summary of results from past seasons.

Hero and bifenthrin Products – A number of products containing the active ingredient bifenthrin are available for spider mite management in soybeans. Some examples include Brigade, Bifenture, Frenzy and Sniper. In addition, Hero, a combination product including both bifenthrin and zeta-cypermethrin (two pyrethroids) is also available. In many cases, these materials have provided good initial control but a second treatment has been needed in some fields, especially if populations were

exploded at the time of treatment and numerous mite eggs were present. Early detection and control is needed as with all of the materials available for mite management in soybeans. In addition, most of the labels for products containing bifenthrin state "do not make applications less than 30 days apart or do not apply more than once every 30 days". Therefore, you will need to rotate to a material with a different mode of action if a second application is needed.

Dimethoate – In past years, dimethoate has not provided effective spider mite management under drought stress conditions. However, this year we have received reports of fairly good control in some situations but it should be noted that rain was received in those areas. Although dimethoate is the only systemic material available for spider mite management in soybeans it must be absorbed and translocated by the leaf tissues to provide residual action; otherwise, it undergoes rapid photodecomposition from sunlight. This leaf absorption process is greatly reduced in drought-stressed plants that have "shut-down" physiologically. Another important factor that plays a role in the performance of dimethoate is the pH of the water used as the carrier. Many pesticides, especially dimethoate, are subject to breakdown by alkaline hydrolysis. (http://www.ag.ndsu.nodak.edu/aginfo/entomology/entupdates/ICG_08/01_Intro_08.pdf) In alkaline water (high pH), there is a break in certain bonds in the dimethoate molecule, causing two or more new molecules to form. This increases the decomposition rate of the insecticide and can result in poorer than expected field performance. Dimethoate degradation is also accelerated by the mineral content of the water, especially the presence of iron. If a high pH situation exists, you can lower the alkalinity of the water in the spray tank by adding an acid-based buffer. An important consideration is to select a buffering product that lowers the pH to the acid range without causing phytotoxicity. Also, the buffer must be added to the spray tank first, before the addition of dimethoate.
Note – the dimethoate label states it has a " 7-day reapplication interval. "

Lorsban (chlorpyrifos) - We have seen good initial control of mites with Lorsban and other generic chlorpyrifos products this season. A second application with another material has been needed, especially if populations were exploded at the time of treatment and numerous mite eggs were present. Lorsban (and other generic chlorpyrifos products) can provide good contact control of motile mites when applied in enough water to get good coverage. Since Lorsban is not a systemic product, a second spray of non-chlorpyrifos product may be needed in 5 to 7 days to kill newly hatched mites. The Lorsban label states that: (1) When large numbers of eggs are present, scout the treated area in 3-5 days and if newly hatched nymphs are present, make a follow up application with a non-chlorpyrifos product and (2) do not make a second application of Lorsban 4E or other product containing chlorpyrifos within 14 days of the first application.

So before applying any material, be sure to read the label for rates as well as all restrictions including but not limited to the total number of applications allowed, rotation between materials, minimum number of days required between applications as well as the pre-harvest interval between last application and harvest. Spider mite management is never easy under drought stress conditions. Early detection and multiple applications of materials with different modes of action are often needed to reduce losses from this pest in soybeans. As a reminder, under heavy mite pressure and extended hot, dry weather, it often takes an extended period of free moisture on leaves, high humidity during the day and cool evening temperatures to get an increase in the fungal pathogens that can significantly reduce exploded mite populations.

Grain Marketing Highlights

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

U.S. Drought Not Near Broken

The drought had not been broken by recent rains in the Northern Tier of the Corn Belt and scattered showers in the Eastern Corn Belt, as of Tuesday, July 24. In fact, noted climatologists are predicting the drought could linger into

October. Crop conditions for U.S. corn and soybeans declined again this week as reported on Monday afternoon. The drop in crop condition ratings for the seventh or eighth consecutive week suggests very strongly that USDA's 2012 production estimates for U.S. corn and soybeans can be expected to be lowered again in the August 10 release of the next supply and demand report.

The drop in commodity prices over the past couple of days has more to do with the actions of non-commercial traders than any perceived improvements in the weather. The commodity markets are highly volatile. Non-commercial traders drove prices to the point that there were no buyers. That precluded a sell-off on Monday and Tuesday of this week which should turn around once the fundamentals regain footing. For the most part, with the exception of the Northern Tier, the Corn Belt remains hot and dry with little chance of rain helping corn or soybeans make much, if any, recovery in yield potential.

The shortfall for 2012 U.S. corn and soybean production and the fact that the rest of the world (i.e., Ukraine, South America) will not have nearly enough corn to export to make up the difference implies that these markets remain extremely bullish. The correction experienced in these markets earlier in the week is being attributed to technical factors. It is too soon to suggest that these markets are anywhere near done rationing demand. Fundamentally nothing has changed. At some point in time two things could happen to turn the corn and soybean futures market to the downside: 1) demand rationing/destruction – where demand gets cut enough to begin the "short crop" price spiral downward seeking the equilibrium price where demand can be rebuilt. 2) A rain event that commodity traders interpret as a drought buster. Remember, it takes significantly less rain to break the market than it does to grow the crop.

U.S. and world wheat production has also garnered the attention of commodity analysts and traders with world wheat production falling short of original projections. Sizeable reductions are being made in wheat production forecasts for Kazakhstan, Australia, Russia, etc. This means that wheat producing countries throughout the world are now expected to have less wheat for export in the current crop year. The U.S. Drought Monitor released July 17 depicts most regions of the U.S. still under extreme drought conditions (http://droughtmonitor.unl.edu/). This week's drought monitor map, updated as of July 24, will become available on Thursday, July 26. The map for this week is not expected to show any significant improvement over last week in the heart of the Corn Belt.

Bottom line: fundamentals remain bullish across the board. The commodity markets were engaged in a technical correction at the beginning of the week and have regained some of the losses incurred in Tuesday's overnight and Wednesday morning's trade. Volatility in these markets remains extremely high. This increases the risks involved in commodity trading. Corn, soybean, and wheat futures have recovered some of the losses incurred at the beginning of the week on Tuesday night and Wednesday morning. In e-trade on Wednesday morning, July 25 at 11:20 a.m. EDT Dec '12 corn futures were $7.88; Nov '12 soybeans at $16.07; and Dec '12 SRW wheat futures were bid at $ 9.14 per bushel. The strategy of scale up sales for new crop corn and soybeans should not be abandoned at this time.

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

Please Note: This is a fast moving market. Commodity marketing always involves risk. The current situation has added greatly to that risk. Carl is recuperating at home after cataract surgery on July 26. He will be checking the markets at home and can be reached at 302-690-1878.

Announcements

2012 Summer Turf & Nursery Expo

Thursday, August 16 8:15 a.m.-3:35 p.m.
Carvel Research and Education Center
16483 County Seat Hwy
Georgetown, DE 19947

Talk & Workshop Topics

- Transportation Regulations, Laws & Safety
- Pest & Beneficial Insect Walk
- Soil Health
- Intermediate Wall, Paver (Raised Patio) Construction
- Business Planning
- Safe Tree Removal
- Proper Pruning Techniques
- CNP Plant ID Challenge & Their Potential Pests

Pesticide and Nutrient Management credits awarded for some talks/workshops. More information and registration form available online: *http://www.dnlaonline.org/pdf/programs/Summer%20Expo/2012_Summer_Turf_Expo_RegisBrochure1.pdf*

Extension Vegetable & Fruit Program Open House

Tuesday, August 21 4:00 – 8:00 p.m.
Carvel Research and Education Center
16483 County Seat Hwy
Georgetown, DE 19947

Come see and hear about many of the UD Extension Vegetable and Fruit Program's field research projects from the 2012 season.

Watermelons: pollination, potassium fertilization, stress mitigation, variety trial and more…

Onions: overwintering and spring transplanted onion production

Lima Beans: tillage practices, re-growth production, breeding for stress tolerance and disease resistance

Fruit: fall strawberry and blackberry production

Lettuce: spring variety trial results and tour of fall varieties

Sweet Corn: fresh market variety trial results, processing corn population and tillage practice studies

Dinner featuring local produce will be served.

Please pre-register by contacting Karen Adams at 302-856-2585 ext. 540 or adams@udel.edu.

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of July 19 to July 25, 2012

Readings Taken from Midnight to Midnight

Rainfall:

0.28 inch: July 20
0.02 inch: July 22

Air Temperature:

Highs ranged from 93°F on July 24 to 73°F on July 21.

Lows ranged from 73°F on July 24 to 66°F on July 25.

Soil Temperature:

82.2°F average

Additional Delaware weather data is available at http://www.deos.udel.edu/monthly_retrieval.html and http://www.rec.udel.edu/TopLevel/Weather.htm

Weekly Crop Update is compiled and edited by Emmalea Ernest, Extension Associate – Vegetable Crops