



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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August 31, 2012

Vegetable Crops

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

Cabbage

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

Lima Beans

Continue to scout for stink bugs, lygus bugs, soybean loopers, beet armyworm and corn earworm. Moths can still be found laying eggs in fields. Be sure to sample for corn earworm larvae as soon as pin pods are present. A treatment will be needed if you find one corn earworm larvae per 6 ft-of-row.

Peppers

At this time of year, corn borer, corn earworm, beet armyworm and fall armyworm are all potential problems in peppers. So be sure to select the material that will control the complex of insects present in the field. Be sure to check local moth catches in your area by calling the Crop Pest Hotline (in state: 800-345-7544; out of state: 302-831-8851) or our webpage at <http://ag.udel.edu/extension/IPM/traps/latestbt.html>. We continue to see aphid populations increasing, especially in fields where pyrethroids have been used on a weekly basis. Labeled materials are only effective if applied before populations explode.

Snap Beans

You will need to consider a treatment for corn borer, corn earworm, beet armyworm and soybean loopers. Sprays are needed at the bud and pin stages on processing beans for worm control. With the diversity of worm pests that may be present in fields, be sure to scout fields and select materials that will control the complex of insects present. For the most recent trap catches in your area and to help decide on the spray interval between the pin stage and harvest for ECB control in processing snap beans, you will need to call the Crop Pest Hotline (in state: 800-345-7544; out of state: 302-831-8851) or check our website

<http://ag.udel.edu/extension/IPM/traps/latestbt.html> and

<http://ag.udel.edu/extension/IPM/thresh/snapbeanecbthresh.html>.

Spinach

Both webworms and beet armyworms 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 2 applications are needed to achieve control of webworms and beet armyworm.

Sweet Corn

Be sure that a spray is applied as soon as ear shanks are visible on plants (before you see any silk). If fall armyworms are present in the whorl, you will need multiple whorl sprays for this insect before the ear shank spray to achieve effective control and to prevent larvae from

dropping into the ear zone. Once fields are silking, you will need to check both blacklight and pheromone trap catches for silk spray schedules since the spray schedules can quickly change:

<http://ag.udel.edu/extension/IPM/traps/latest/t.html> or call the Crop Pest Hotline (in state: 800-345-7544; out of state: 302-831-8851). Be sure to check all labels for days to harvest and maximum amount allowed per acre.

How Late is Too Late for Pumpkins? -

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

Delayed fruit set in pumpkin can be due to many factors including late planting, heat and water stress, poor pollination and excess fertility (too much N). When set is delayed until August, the question is will the pumpkin develop and color in time for sales.

Under favorable summer growing conditions pumpkins will start to color about 4 weeks after fruit set and will be completely colored by 7 weeks after set. If fruit set is delayed until August, reduced day lengths and cooler temperatures may increase the time for full color development. Varietal differences in days to maturity also come into play.

In research at Purdue University reported by [Liz Maynard in the Purdue Vegetable Crops Hotline](#), pumpkin fruit (Magic Lantern and Gold Medal Varieties) that set in August were tagged and then evaluated for maturity in October. They found that “for pumpkins planted June 16 or June 25, out of 88 flowers that opened between Aug. 10 and Aug. 21, at least 70% produced pumpkins that were either turning or fully orange by Oct. 2 and 10, respectively. The remaining 20 to 30% either never set a fruit, or the fruit was still immature at the time of harvest. Of 14 flowers that bloomed between Aug. 22 and Sept. 3, 43% produced turning fruit by October 10, and none produced fully orange fruit by that date”.

This indicates that pumpkins set in mid-August will be ready for October sales. In fields with delayed set, it will be critical to keep vines

healthy through September. This will mean additional fungicide sprays through the month with special attention being paid to powdery mildew and downy mildew.

Brown Marmorated Stink Bug in Peppers -

Jerry Brust, IPM Vegetable Specialist, University of Maryland; jbrust@umd.edu

There has been a large and rapid increase in brown marmorated stink bug (BMSB) in some pepper fields in the past week in central Maryland. Numbers just two weeks ago in these areas were very low with just a few nymphs observed. We know that BMSB populations tend to increase in August and through the fall into the first frost, but this was such a rapid increase that a great deal of damage was done to bell and banana peppers.

These peppers had been treated with chlorantraniliprole (Coragen) and this took care of any worm problems very well, but the growers did not think stink bug. There were 8-10 nymphs and 2-3 adult BMSBs per plant in these fields. Damage to peppers as you might guess was extensive (Fig. 1). Much of the feeding appeared to be done by nymphs (Fig. 2). BMSB nymphs have a white stripe on all six of their legs, which is unique compared with our most common native stink bug species. This white stripe fades when nymphs become adults.

Besides the white ‘cloudy spots’ on fruit, many peppers had dark brown and red as well as bright white areas (Fig. 1). These bright white areas were found to have yeast growing within the wound that from previous studies we learned has been injected by the BMSB when it feeds.

One odd thing from the BMSB outbreak was that tomato fields that were next to or very close to the pepper fields had almost no BMSBs in them. Whether this would have changed soon we are not sure as the growers did not take any chances and treated.

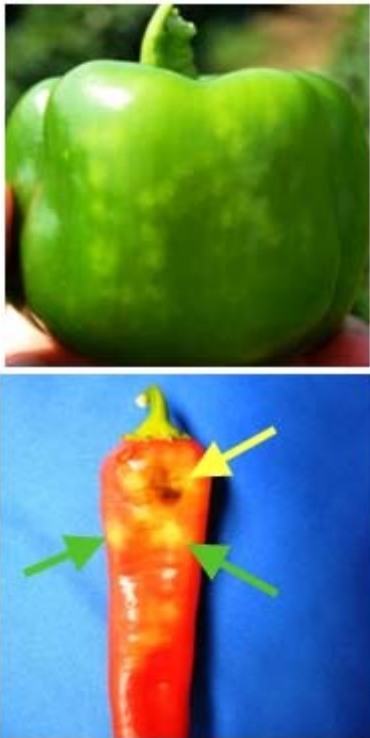


Figure 1. BMSB damage to bell and banana pepper, brown spot (yellow arrow) and bright white areas (green arrows)



Figure 2. BMSB nymphs feeding on pepper

Fruit Crops

High Tight Beds for Plasticulture

Strawberries - Gordon Johnson, Extension Vegetable & Fruit Specialist; gcjohn@udel.edu

Highest yields in plasticulture strawberries require proper bed formation. While bed makers and plastic layers used for vegetables can be used, it is preferred to use bed makers specifically designed for plasticulture strawberry systems (such as a Kennco or Reddick machines). These produce beds that are 32 inches wide at the base, 30 inches wide at the top and 10 inches tall with a crowned top for good drainage. With this type of bed, you can have bed centers at 5 ft between beds. It is also important to lay the plastic so that it is tight against the soil. This allows for effective heat transfer that will promote good strawberry growth in the fall.

Agronomic Crops

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

Alfalfa

Continue to sample fields on a weekly basis for defoliators including earworm, webworms and all armyworm species. Economic levels of defoliators, continue to be found causing damage.

Soybeans

We can still find fields with economic levels of corn earworm (mainly double crop), stink bugs and defoliators. There have also been a few fields that need a second corn earworm spray for recently hatched larvae.

As soybeans begin to mature and insects are still active in fields, there is always the question regarding the susceptibility of fields to insect damage, especially full season soybeans. So let's discuss each group and what we know and/or what experience we have from past seasons.

Stink Bugs

As a general rule, soybeans are still susceptible to damage from stink bugs through growth stage R6.5 ("mid R6"). This has been described by some agronomists as the stage when pods are still green and the lower leaves are just beginning to yellow from natural senescence and not drought stress - approximately 10 days after R6.0 (full green seed). It has also been described by others as mid-way from full seed development until maturity. However, there are a few studies from the south indicating that scouting is needed until beans are in the R-7 growth stage (beginning seed maturity) to avoid damage from stinkbugs which can include underdeveloped or aborted seeds, green stem syndrome, reductions in pod fill, seed vigor and viability, yield loss and a reduction in the storage stability of harvested seeds. In New Castle and Kent Counties, we are starting to see fields with high levels of Brown Marmorated Stink Bugs on field edges of full season soybeans (most fields are growth stage R6). If a treatment is needed, an edge treatment (one spray boom width - at least 50 ft wide) was effective last year, and we are working on a regional project to document the outcome of this strategy in 2012. There are also areas of the state with high native brown and green stink bug populations so be sure to scout for them as well.

Corn Earworms

As far as corn earworms, the experience of most entomologists in the region is that soybeans are most susceptible to corn earworm damage when beans are in the R-5 and early R6 stages although there are cases where we see damage through the R6.5 stage. As of Aug 27, a number

of our corn earworm pheromone traps were still catching high numbers of moths so it is too early to say for sure if populations are on the decline (<http://ag.udel.edu/extension/IPM/traps/latest/blt.html>). In addition, trap catches in North Carolina are still high and weather patterns could bring these moths north. We sometimes see a late summer/early fall corn earworm flight which could result in new worm infestations. Most full season fields should be in the "bug-safe" late R6-R7 stage if this occurs; however, double crop soybeans will still be susceptible to attack.

Defoliators

When it comes to defoliators, especially soybean loopers, it is important to keep scouting for them as well through the R6.5 stage. We continue to find pockets of soybean loopers and beet armyworms. If leaves are beginning to yellow up the stem, not from drought but from the maturity process, and there are any pods on the plant that are beginning to yellow, the field should be safe from most defoliators. The exceptions would be grasshoppers and bean leaf beetles, which can scar pods later in the growth stage of soybeans.

NOTE: As we get closer to harvest, be sure to check all labels for the days from last application to harvest as well as other restrictions.

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. The following article provides a good review of 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.

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 in pasture and hay 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, horsenettle, 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. However, if weeds are drought-stressed, herbicide translocation may be slower or incomplete, resulting in less effective control. 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 significantly reduce 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. 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. Access a pdf version on-line at
http://www.rec.udel.edu/weedscience/WS_ManagementGuides.html.

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

Pro Farmer Tour Pegs 2012 U.S. Corn and Soybean Production Estimates Below August Projections

The Pro Farmer Crop Tour has gained notoriety over the years conducting an annual tour of potential U.S. corn and soybean production in mid-August each year. On Friday, August 24 Pro Farmer released their 2012 U.S. corn and soybean production estimates. The U.S. corn crop was estimated at 10.478 billion bushels with an average yield of 120.25 bushels per acre. The soybean crop was estimated at 2.6 billion bushels at an average yield of 34.8 bushels per acre. Both estimates were below USDA's August projections of 10.779 billion bushels for U.S. corn and 2.692 billion bushels for U.S. soybeans. USDA will release their next revision of 2012 corn and soybean supply and demand projections on September 12.

Marketing Strategy

With the arrival of an early 2012 harvest grain producers have a new set of questions to answer. Should I store corn with Dec '12 new crop futures currently bidding at \$8.13 per bushel (CME Group -CBOT)? Should I store \$17.57 per bushel soybeans? Neither question can be easily answered. Some would question one's sanity to place corn or soybeans in the bin for sale at a later date with prices at such lofty levels. However, even though there are not clear cut answers to these questions there are a few considerations that might help one to decide.

First, look at the carry or spread between futures contract months. It is duly noted that on Thursday, August 30 no carry exists in either the corn or soybean futures markets. We then might conclude that the markets are telling us that they want to buy your corn and soybeans now, bearing in mind that there are no absolutes.

Second, there is the matter of price. Some would argue that the corn market has to bid higher from current levels in order to ration supply so that we don't run out before the next corn harvest begins. Others argue that the price of corn is already high enough to get that job done. Additionally, alternative supply sources

for importing corn are currently being employed. New crop corn and soybean basis bids are being kept in check as a result, with new crop corn and soybeans currently in the ball park of 15 under locally. New crop corn has traded in a sideways pattern for the past month and will eventually break out moving either higher or lower depending upon whether new information is considered bullish or bearish. Simultaneously, new crop soybeans have been trending higher. It is going to take some time to sort this out. 2012 U.S. corn and soybean production most likely won't be known until the January Supply and Demand report is released.

Third, the soybean market is said to be different than corn. The difference being that price will ration corn supply so that we don't run out before the next harvest. The concern for soybeans, after experiencing a reduced 2012 crop in the Southern Hemisphere and a short crop in the U.S., is that supplies could possibly run dry by February. We are now beginning to believe that soybeans priced at the \$20.00 per bushel mark (+ or -) is within the realm of probability.

So back to the original questions -- should one store either corn or soybeans this fall? As laid out above one might suggest that it wouldn't be out of the question to consider keeping a few beans around and maybe some corn in which case one will need to consider the next question. If I put some of the crop in the bin should I protect the downside?

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

Announcements

UD Extension Tour and Discussion Improving Soil Health / Cover Crops for Agronomic and Commercial Vegetables

Thursday, September 13, 2012 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's field research projects for Agronomic and Commercial

vegetables which involve soil health or cover crop components.

A variety of projects will be presented including:

- Reduced tillage/no-till for limas
- Evaluation of biofumigant and winter kill cover crops
- Pumpkins produced with rye cover crop - influence of rye on weed control and fruit quality
- Use of cover crop and reduced tillage in a rotational system for commercial vegetable production - strategies for fitting cover crops into different systems
- Soybean production with rye cover crops - advantages and challenges
- Also discussion of on-going projects with bee pollination and irrigation

Dinner will be served. There is no charge for this field day.

Please pre-register by contacting Karen Adams at 302-856-2585 ext. 540 or adams@udel.edu. Register by September 6.

Upcoming Workshops Aim to Benefit Farmers with Drought-Plagued Fields

Monday, September 17, 2012 8:00 a.m.

Paradee Center
69 Transportation Circle
Dover, DE

Monday, September 17, 2012 7:00 p.m.

Carvel Research and Education Center
16483 County Seat Highway
Georgetown, DE

Nearly 50% of the nation's farmers' crops have suffered losses from extremely dry conditions during the current growing season. Sharply rising prices and crop devastation will affect not just producers themselves, but all channels of the U.S. and global economies. Therefore, it is important Delaware farmers stay informed about risk management and farm safety-net options available to them, in order to keep funds available and cash flow steady.

Two workshops are to be held on September 17, 2012 featuring discussion and instruction on crop insurance, grain marketing, pending ag legislation,

and general risk management. Admission is free and each meeting includes complementary risk management related materials and refreshments.

To register for either event **please call 302-424-8340 or 877-673-2767** (registration is not required, but ensures availability of materials for all attendants). Setting aside the time to attend may save you time and money in the future.

University of Delaware Irrigation Field Day

Wednesday, September 19, 2012 9:00 a.m.

UD Warrington Irrigation Research Farm
Corners of Rt. 5 and DE 290 Cool Spring Rd./ Hurdle
Ditch Rd.

4 miles south of Harbeson, DE
([See map](#), signs will be posted.)

The University of Delaware Irrigation Program invites farmers, industry and the general public to tour UD's Warrington Irrigation Research Farm on Wednesday, September 19 at 9:00 a.m. UD Irrigation Engineer James Adkins along with Sussex County Agent Cory Whaley and Kent County Agent Phillip Sylvester will present the following:

First Year Experiences with Subsurface Drip Irrigation (SDI)

Tour our newly installed 42 zone SDI research facility and discuss the potential of SDI to irrigate previously uneconomical fields. Join in a candid discussion of the benefits and challenges of SDI in sandy soils and the nuances every farmer should consider before installation.

The Potential for Variable Rate Center Pivot Irrigation (VRI)

Discuss the feasibility, practicality and affordability of VRI as a tool to improve irrigation management in highly variable fields. View a demonstration of the UD 4 tower VRI system and the potential applications of VRI technology outside of irrigation research.

Soil Moisture Monitoring as a Tool to Refine Irrigation Management

View many of the various options to monitor soil moisture levels with a discussion of the pros and cons of each option.

Irrigated Corn, Full Season and Double Soybean Irrigation Research Plots

Discuss the preliminary results of multiyear irrigation research to improve the yields of irrigated agronomic crops.

For more information contact: Karen Adams at 302-856-2585 ext. 540

2012 Delmarva Poultry Conference

Wednesday, September 26, 2012

Ronald E. Powell Convention Center
Ocean City, MD

7:00 - 8:00 am REGISTRATION/CHECK-IN

8:00 am Switchgrass as a Litter Alternative

Bill Brown, University of Delaware

Jennifer Timmons, University of Maryland

8:25 am Managing Water for Performance

Susan Watkins, University of Arkansas

8:55 am Ten Steps to Drier Houses and Better Paw Quality

Jesse Campbell, Auburn University

9:25 am Vegetative Environmental Buffer Update

Jim Passwaters, Delmarva Poultry Industry, Inc.

9:45 am Break/Refreshments/Exhibits

10:15 am Considerations for Attic Vent Installation

Jody Purswell, USDA-ARS

10:50 am Infectious Laryngotracheitis Disease Prevalence Patterns

Dan Bautista, University of Delaware

11:15 am Infectious Laryngotracheitis Control Strategies

David Shapiro, Perdue Farms, Inc.

11:40 am Using Technology to Enhance Management Decisions

Dan Goss, Verible

12:05 pm Flock Supervisors' Award

12:15 pm Lunch and Exhibits

1:30 pm Solar Energy for Poultry Farms

Jim Glancey, University of Delaware

2:00 pm Poultry Grower Experiences with Solar Energy

Dan Heller, Flintrock Farm

Robbie Issacs, Issacs Farm

Terri Wolf King (unconfirmed), Cornerstone Farm

2:45 pm LED Lights - New Technology in Lighting
Susan Watkins, University of Arkansas

3:15 pm Poultry House Water Supply
Jesse Campbell, Auburn University

A block of rooms has been reserved at the *Princess Bayside Beach Hotel* (Standard: \$55 + tax, Bayfront efficiency: \$69 + tax)
800-854-9785 www.princessbayside.com

Rooms are reserved under:

Delmarva Poultry Conference

Reservations must be made BEFORE August 27, 2012

Registration form and additional information is online at: <http://agdev.anr.udel.edu/weeklycropupdate/wp-content/uploads/2012/08/2012DelmarvaPoultryConference.pdf>

or contact:

Lisa Collins: (302) 856-2585 x702 or lcollins@udel.edu

Delaware Ag Week
January 14 - 18, 2013

The University of Delaware Cooperative Extension, Delaware State University Cooperative Extension and the Delaware Department of Agriculture are cooperating to organize this annual week of agriculture-related events.

A schedule of sessions offered during Ag Week will be published in the final issue of WCU for the season.

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of August 23 to August 29, 2012

Readings Taken from Midnight to Midnight

Rainfall:

1.22 inch: August 25

1.00 inch: August 26

Air Temperature:

Highs ranged from 86°F on August 28 to 75°F on August 25.

Lows ranged from 73°F on August 27 to 62°F on August 23.

Soil Temperature:

77.8°F average

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

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

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