



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

Volume 25, Issue 27

September 29, 2017

Last Issue of Weekly Crop Update for 2017

This is the last issue of Weekly Crop Update for the 2017 season. I hope that this newsletter has been a useful resource to you as you dealt with the challenges of this past growing season.

My thanks to the Extension specialists and agents who have contributed articles this year – the WCU would obviously not be possible without them. New regular contributors to WCU brought new ideas and features to WCU this year. We also say farewell to Nathan Kleczewski, who has taken a faculty position at University of Illinois. Thank you, Nathan for the many great articles over the past several years. If there were WCU articles that you found particularly useful I hope you will let the writer know.

My thanks as well to our office staff at the REC, who make sure the WCU gets to our fax and mail subscribers. Finally, I am very grateful to Don Seifrit for the help he has given me with the blog version of WCU this year.

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 Ernest
Associate Scientist - Vegetable Crops;
emmalea@udel.edu



Vegetable Crops

Frost and Freeze Considerations in Vegetables Revisited - *Gordon Johnson,*
Extension Vegetable & Fruit Specialist;
gcjohn@udel.edu

As we move into October, frost becomes a factor in harvest and recovery of vegetables. Later in the fall, freezes can become a concern. The first frost on inland sites generally occurs by the third week in October in the middle of Delmarva. However, this can vary quite a bit. For example, the first temperature below freezing in the Laurel, DE area occurred on Oct 26 in 2016 (31.3), Oct 18 in 2015 (31.6), Oct 20 in 2014 (31.9), Oct 24 (29.6) in 2013, and Oct 13 (28.9°F) in 2012. The first hard freeze (below 28°F) in the Laurel area occurred on Nov 12, Nov 15, Nov 8, Oct 26, and Nov 5 from 2016 to 2012 respectively. Coastal areas will see a delay in frost. For example, Kitts Hummock, near the Delaware Bay, had first frosts on Nov 12, Oct 19, Nov 8, Nov 9, and Nov 6 over the last 5 years.

Light to moderate frosts will not affect cool season vegetables such as cole crops, lettuce, and spinach. Some cool season crops, such as Brussels sprouts, broccoli, kale, and collards will handle freezing conditions. In contrast, cauliflower, once frozen, will deteriorate quickly. Warm season vegetables vary considerably in their ability to tolerate a light frost. For example, pepper is more cold tolerant in the fall than tomato which is severely damaged by frost. Pumpkins and winter squash will have leaf and vine kill with light frost but

fruits will remain marketable. Heavier frosts and freezes will damage the fruit. Sweet potatoes must be dug quickly after a frost kills vines and will suffer root damage if soil temperature drops below 40°F. We often have significant acreage of beans still out in the fall. Snap beans and lima beans will have leaf damage but still can be harvested with a light frost. It is when temperatures drop below 28°F and pods freeze that harvest recovery is affected. When lima beans are frosted, you may have several weeks to get into the field and harvest. However, if there is pod freezing, the harvest window drops to a few days, depending on the day temperatures, before seeds start to "sour".

For unprotected frost sensitive vegetables, it is important to follow weather forecasts closely for risk of frost or freeze. Clear sky conditions after a cold front moves through will be the highest risk for frost or freeze. When risk is high, growers should harvest all marketable produce ahead of the frost or freeze in warm season crops. For example, harvest all tomatoes (ripe, breakers, and mature greens) prior to a frost.

Floating row covers offer the best protection of sensitive vegetables against frost and freeze injury, depending on the thickness of the row cover, expect 2-6°F degrees of protection. Moist soil also can store some heat, lessening frost, and sprinklers can be used for fall frost protection (see past articles on spring frost protection).



Peppers will tolerate frosts in the fall, tomatoes will not



Lima bean harvest is minimally affected after a light frost. However, after a freeze, lima beans must be harvested within 48 hours.



Brussels sprouts are frost and freeze tolerant to 20°F.

Allium Leafminer Active in Maryland - Jerry Brust, IPM Vegetable Specialist, University of Maryland; jbrust@umd.edu

The new pest of onion, leek and garlic, the Allium leafminer, is active now in our area. This new pest was first found in Lancaster County Pennsylvania in December 2015. It has since been found in Maryland in only a few northeastern counties, but my guess is that the pest is probably in many northern/central areas of Maryland. New transplants or seedlings of onions or leeks should be watched closely for the tell-tale signs of the fly's damage which are several very small dots in a row along the leaf of an allium plant (Fig. 1). Figure 1 is an excellent picture by Sarah May of Penn State, that not only shows what and where the feeding is observed on a plant but also the relative size of the oviposition/feeding damage and what you should look for. Penn State has a great deal of good information about the new pest which can be found at: [Penn State Allium Leafminer Pest Alert page](#). Figure 2 shows the adult female as she is making the incisions into the allium leaf causing the white spots. Growers should look for these tell-tale signs or the fly itself on any newly planted allium species. You can cover any new allium plantings with row cover to keep the flies off or treat with insecticides.



Figure 1. Oviposition/feeding spots (red circles) on onion transplants from Allium leafminer



Figure 2. Allium leafminer female adult on onion leaf

Agronomic Crops

Fall is the Best Time to Add Lime - Jarrod O. Miller, Extension Agronomist, jarrod@udel.edu

If you are planning on adding lime to bring your pH up, post-harvest is the best time to do it. Lime can take some time to react with the acidity in your soil, particularly in no-till systems. Following application, your soil pH may be greater than 7 at the surface, only gradually coming down. So if you wait to apply lime in the spring, soil pH may be too high at planting.

Some considerations when liming:

- Sandy soils are typically lower in micronutrient concentrations and more sensitive to higher pH, so UD recommends a pH 6.0 for these soils. However, the target pH for clay (finer) soils is 6.5. Watch your fields for nutrient deficiencies so you can pinpoint an ideal pH range in the future.
- Tillage usually mixes lime well, but no-till should definitely be applied in the fall.
- Does your soil have plenty of magnesium? Find a lime with more calcium this time.
- Get a cheap pH test kit and monitor your soil pH over the winter.

Agronomic Research Updates - Jarrod O. Miller, *Extension Agronomist*, jarrod@udel.edu

The Effects of Nitrogen Fertilization on Corn Residue Decomposition

To increase corn residue decomposition, Iowa farmers may apply liquid N following harvest. A study of two fields with three N rates did not observe any effects on corn fodder breakdown with additional N. Lab studies revealed that temperature drove corn fodder breakdown more than applied N. *Agronomy Journal* (109): 2415-2424.

Can Yield Goals Be Predicted?

Wheat yields averaged over the previous 3-5 years were not correlated with the ensuing yield, mainly due to varying weather conditions. Because optimum N use may change every year, active sensors (e.g. Greenseeker) at mid-season are a viable alternative. *Agronomy Journal* (109): 2389-2395

Soil Potassium Levels and Depth to a Clay Pan

Soils in Missouri have varying topsoil thickness and depth to claypans. Soils where claypans were deeper in the profile required more K to raise to soil test potassium. Checking soil maps for depth to clay layers may help predict K losses on the Delmarva as well. *Agronomy Journal* (109): 2291-2301

Starter N and Cover Crops in Organic Corn

Cereal rye and hairy vetch were fall planted and then terminated with a roller crimper in the spring, prior to corn planting. This mixture could produce a high biomass capable of suppressing weeds. Starter fertilizer in the form of poultry litter or feather meal was necessary to maximize organic corn yield in this cover crop system. *Agronomy Journal* (109): 2214-2222

Variability in Corn Yield Response to Nitrogen

Planting at optimal dates resulted in less variable optimum economic N rates, compared to those that were planted late. On coarse textured soils, more N was needed with wet growing seasons. *Agronomy Journal* (109): 2231-2342)

Wheat Production and Nitrogen Additives

The combination of urease and nitrification inhibitors was successful at reducing N losses as ammonia or nitrous oxide, compared to urea alone. Higher nitrous oxide losses were observed

when pore water was 35-60%, soils were warmer than 50°F and there was adequate soil nitrate. Both inhibitors reduced the nitrate concentrations below the root zone. *Agronomy Journal* (109): 1825-1835.

Small vs Large Plot Studies on Fungicides and Yield -- Which is Better? - Nathan Kleczewski, *Extension Specialist - Plant*

Pathology; nkleczew@udel.edu; @Delmarplantdoc

Over the last 10-15 years there has been much discussion in the agricultural realm about the utility of fungicide trials conducted on small plots, vs those on larger plots. Small plots typically are 5-10' wide, and 20-50' long, depending on the crop and study. Large plots typically consist of strips of varieties or treatments, and therefore are as wide as the width of a sprayer or planter and typically span a cross section of the field. Today I'm going to discuss the advantages and disadvantages of both types of studies and go over some new research on the subject.

Small plot research can be conducted on a relatively small area, easily replicated, and allows for multiple treatments to be tested simultaneously (think nitrogen x spacing x fungicide timing for example). Limitations in plot size can result in larger than typical variability, especially with corn research. This is because a small amount of ear loss at harvest can have a fairly large effect on overall plot yield, and the number of plants in the plot is small. Thus, small differences in the absolute number of plants in the plot and ears harvested can result in more variability in yield from plot to plot. In the past, many also discounted small plot research due to perceived edge effects from and alleys influencing results. Edge effects result from the plants on the outside of plots experiencing a slightly different environment than those on the inside. In large plots, the edge effect relative to the overall treatment area is small. However, in small plot research, the edge effect can be large in some instances. However, at least with fungicide work, research indicates that alleys and edge effects do not influence overall results (Vincelli and Lee 2015).

Contrast this with larger scale studies such as strip trials. These studies do not suffer from as many issues with yield-related variability, at least regarding corn, because plots are much larger and therefore grain samples are less influenced by ear loss and limited population. Edge effects are minimized due to large plots, as mentioned previously. The downside is that due to the plot size, strip trials are often limited to a small number of treatments. Consequently, the same trial needs to be conducted across many sites and years before enough observations are made to draw a meaningful conclusion.

That brings me to my last point. Some people, for whatever reason, completely discount small plot research results. Often, many of the aforementioned claims are mentioned in this argument. In the end, is there really any difference in results? Researchers at Iowa State recently published a study that examined small plot and strip plot fungicide trials conducted in Iowa from 2008-2015 (Kandel *et. al*, 2015). A total of 230 strip plot trials and 49 small plot trials were included in the analysis. Based on their analysis, the researchers found that the yield responses for the various treatments were similar. However, the data from small plot trials were slightly more variable. For example, to detect a given yield response, a split plot trial would need three treatment replications per field and 12 locations, whereas a small plot trial would need seven replications at each site and 12 locations. Their results show that small plot data show the same results as the large plot data, but might need a little more replication to detect a difference when compared to strip trials. Both small plot and large plot data are useful for agriculture, and both have their advantages and disadvantages. However, neither should be discounted when it comes to providing useful information to growers.

Lastly, I will leave you with a link to a great little article from the University of Nebraska called "Field Studies: What do you mean 5 bushels per acre is not significant?" In this article the authors do a great job of discussing research and terms such as significance and variability. This is a good read heading into meeting season and Crop School. Find the article here: [http://cropwatch.unl.edu/2017/field-](http://cropwatch.unl.edu/2017/field-studies-what-do-you-mean-5-bushels-acre-not-significant)

[studies-what-do-you-mean-5-bushels-acre-not-significant](http://cropwatch.unl.edu/2017/field-studies-what-do-you-mean-5-bushels-acre-not-significant)

References:

P. Vincelli and C. Lee, 2015. Influence of open alleys in field trials assessing yield effects from fungicides in corn. Plant Disease pp 263-266. <http://apsjournals.apsnet.org/doi/abs/10.1094/PDIS-04-14-0415-RE>

Kandel Y.R, C.L Kyveryga, P.M., Mueller, T.A. and Mueller, D.S. 2017. Differences in small plot and on farm trials for yield response to foliar fungicides in soybeans Plant Disease <https://t.co/2l0KEVjyS>

Thanks Delaware and Maryland - Nathan Kleczewski, Extension Specialist - Plant Pathology; nkleczew@udel.edu; [@Delmarplantdoc](https://twitter.com/Delmarplantdoc)

This will be my final WCU, as I will be leaving to start a new position with the faculty at the University of Illinois as their field crop plant pathologist in November. I would like to sincerely thank the agricultural community in Delaware and Maryland for all the help these past 4½ years. I truly enjoyed and valued my time here at the University of Delaware, my interactions with growers and the industry, and hope I can, "pay it forward" to whomever serves you as your pathologist in the future. It means a lot to me to hear all the kind words and statements about my time here and value to the community. Delaware and Maryland are full of great people, wonderful growers and expert ag professionals. I look forward to collaborating with Delaware and Maryland in the future, and hopefully will see you again at events such as Crop School and Ag Week. In the meantime, enjoy your Fall and Winter, make sure to select the right varieties and rotate, and if you don't know what disease is affecting your crop, have it confirmed by a diagnostic lab!

Cheers,
Nathan

General

Guess the Pest! - *Bill Cissel, Extension Agent - Integrated Pest Management; bcissel@udel.edu*

Congratulations to John Comegys for accurately identifying the insect in Guess the Pest Week #24-25 as green stink bug nymphs. John will not only have his name entered into the end of season raffle for \$100 gift card not once but five times, he will also receive a FREE copy of A Farmer's Guide to Corn Diseases.

<http://www.plantmanagementnetwork.org/book/cornfarmersguide/>

I would like to thank everyone that participated in *Guess the Pest* and hope that you found it to be a fun way to challenge yourself and hopefully you learned something along the way that will be of value to you. To see who won the \$100 gift card, please click on the *Guess the Pest* logo to watch the recorded raffle drawing.

If you are one of the weekly winners that received a Free copy of *A Farmer's Guide to Corn Diseases*, please pick them up at Kent or Sussex county Extension Office.

Guess the Pest Week #24-25 Answer is Green Stink Bug Nymphs



N Kleczewski



W Cissel

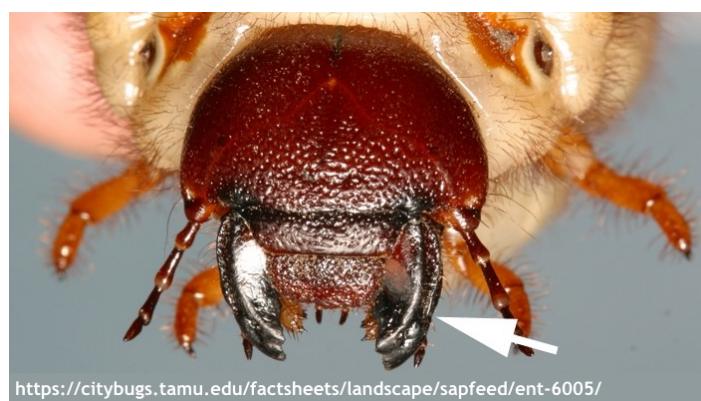
The insects in the photos are green stink bug nymphs. Green stink bug nymphs often remind me of painted turtles or at least that is the first thought that pops into my head when I see them. Stink bugs are in the order, Hemiptera, often referred to as true bugs. Hemipterans have a simple metamorphosis in that they have three life stages; egg, nymph, and adult compared to complete metamorphosis which has four life stages; egg, larva, pupa, and adult. The nymphal stages of many hemipterans only loosely resemble the adults, having different coloration and are usually smaller in size.

Stink bug nymphs are often confused with beetles because of their body shape. An easy way to determine if you are looking at an immature insect versus an adult is to look for wings. Most adult insects (not all, there is always an exception) are winged. The easiest way to distinguish between beetles and immature stink bugs or other true bugs is to look at the mouthparts. For example, beetles have chewing mouthparts and stink bugs have piercing-sucking mouthparts. This feature can also be used when diagnosing crop injury. If a plant's leaves are "chewed", you know the damage wasn't caused

by a stink bug or any other insect with piercing-sucking mouthparts.



Stink bug with piercing-sucking mouthparts.



Example of chewing mouthparts.

Here are a few pictures of some of the other common stink bug nymphs that we see:



Brown Stink Bug Nymph



Brown Marmorated Stink Bug Nymph



Spined Soldier Bug Nymph, one of the GOOD GUYS

To see who won the drawing for the \$100 gift card click the Guess the Pest logo below or go

to:

https://docs.google.com/forms/d/e/1FAIpQLSfUPYLZnTRsol46hXmgqj8fvt5f8-JI0eEUHb3QJaNDLG_4kg/viewform?c=0&w=1



Countdown to Census: What You Need To Know

Only eight weeks until producers start to receive the 2017 Census of Agriculture

WASHINGTON - Sept. 25, 2017 - In just a couple months, farmers and ranchers across the nation will start receiving the 2017 Census of Agriculture. Producers can mail in their completed census form, or respond online via the improved web questionnaire. The U.S. Department of Agriculture's National Agricultural Statistics Service has extensively revised the online questionnaire to make it more convenient for producers.

"The updated online questionnaire is very user-friendly - it can now be used on any electronic device, and can be saved and revisited as the producer's schedule allows," said NASS Census and Survey Division Director Barbara Rater.

"Responding online saves time and protects data quality. That's our mission at NASS - to provide timely, accurate, and useful statistics in service to U.S. agriculture. Better data mean informed decisions, and that's why it is so important that every producer respond and be represented."

New time-saving features of the online questionnaire include automatically calculating totals, skipping sections that do not pertain to the operation, and providing drop-down menus of frequent responses. Producers still have one week to try the online questionnaire demo on the census of agriculture website (www.agcensus.usda.gov).

The census website will continue to be updated with new information through the census response deadline of February 5, 2018. One recently added feature is a new video from Secretary of Agriculture Sonny Perdue reminding all producers to respond when they receive their 2017 Census of Agriculture in the mail later this year.

Revisions and additions to the 2017 Census of Agriculture aim to capture a more detailed account of the industry. Producers will see a new question about military veteran status, expanded questions about food marketing practices, and questions about on-farm decision-making to better capture the roles and contributions of beginning farmers, women farmers, and others involved in running the business.

Response to the census of agriculture is required by law under Title 7 USC 2204(g) Public Law 105-113. The same law requires NASS to keep all information confidential, to use the data only for statistical purposes, and only in aggregate form to prevent disclosing the identity of any producer. The time required to complete the questionnaire is estimated at 50 minutes. In October, NASS will make a census preparation checklist available on the census website to help producers gather necessary information in advance.

Conducted once every five years, the census of agriculture is a complete count of all U.S. farms, ranches, and those who operate them; it is the only source of uniform, comprehensive, and impartial agriculture data for every state and county in the country. Farmers and ranchers, trade associations, government, extension educators, researchers, and many others rely on census of agriculture data when making decisions that shape American agriculture - from creating and funding farm programs to boosting services for communities and the industry. The census of agriculture is a producer's voice, future, and opportunity.

For more information about the 2017 Census of Agriculture, visit www.agcensus.usda.gov or call (800) 727-9540.

USDA is an equal opportunity provider, employer, and lender.

USDA NASS is the federal statistical agency responsible for producing official data about U.S. agriculture and is committed to providing timely, accurate, and useful statistics in service to U.S. agriculture. We invite you to provide feedback on our products and services. Sign up at <http://usda.mannlib.cornell.edu/subscriptions> and look for "NASS Data User Community."



Announcements

New Castle County Fall Equine Program

October 10, 2017

New Castle County Extension Office
461 Wyoming Road
Newark, DE 19716

6:00 p.m. **Global Worming: How to Prevent De-wormer Meltdown in the 21st Century**

Dr. Rose D. Nolen-Walston, University of Pennsylvania School of Veterinary Medicine

6:40 p.m. **New Castle County Conservation District Programs for Equine Operations**

Mr. Kevin Donnelly, New Castle Conservation District Coordinator

6:55 p.m. **Break**

7:05 p.m. **Preparing Your Pasture for Winter: Fall Fertilization and Weed Control**

Ms. Susan Garey, University of Delaware Cooperative Extension

7:30 p.m. **Preparing an Animal Waste Management Plan for Your Farm**

Ms. Sydney Riggi, University of Delaware Cooperative Extension

7:55 p.m. **Paperwork**

8:00 p.m. **Adjourn**

Nutrient Management CEUs are pending

DSU Woodland Workshop Series

Please register for any or all of these workshops by contacting Megan (302) 857-6438 or emailing mpleasanton@desu.edu. (Please note that these workshops are not all at the same location.) You must register to attend these free workshops.

Selecting and Harvesting Firewood

Thursday, October 26 3:00 – 5:00 p.m.
142 Simmental Meadows Ln, Marydel, DE

During this workshop, you will learn what trees to choose for harvest and which to let grow. You will also learn techniques for harvesting and selecting firewood for sale. This class will be taught by a Delaware Department of Agriculture Forest Service Representative.

Tree Trimming

Thursday, November 9 10:00 – noon
884 Smyrna Leipsic Rd, Smyrna DE 19977

This workshop will teach you the importance of proper tree trimming. The first half of the class will be instructions on how to make a proper cut and the second part will be a demonstration outside.

Building Wood Duck Boxes

Thursday, December 14 6:00 -8:00 p.m.
884 Smyrna Leipsic Rd Smyrna DE 19977

Build them and they will come. During this session you will learn the importance of wood ducks and why we should promote the species. You will be able to build and prepare a wood duck box and take it home with you free of charge.

Large Animal Emergency Rescue Training

October 7 or 8, 2017 8:00 a.m. – 4:00 p.m.
University of Delaware Equine Science Program
UD Webb Farm, Farm Road, Newark

Do you know what to do in a large animal emergency? Are you prepared with equipment, know who to call, what to do? Whether you are a public safety official, a first responder, a veterinary professional, or an equestrian, this course is essential to prepare you for an emergency. You will learn how to move large animals safely and quickly in cases of disaster or injury, while preventing potential injuries to the humans involved. The course offers classroom instruction and hands-on scenarios using our specialized equipment and equipment that may be readily available to first responder departments.

A one-day clinic is being offered to educate first responders, horse owners or anyone interested in learning basic large animal rescue techniques instructed by Roger Lauze, the Equine Rescue and Training Coordinator for MSPCA. Fair Hill NRMA's new rescue trailer, donated by the Volunteer Mounted Patrol, will be utilized for the training. The cost for the full day of training is \$10 per person. Please bring your own lunch and drinks.

Registration is limited to 40 participants per day so please register early. Dress appropriately for the weather as you will be hands on after classroom work. Please bring leather gloves and safety helmet.

For more information, contact Amy Biddle, Department of Animal and Food Sciences, asbiddle@udel.edu or (302) 831-2642.

To register mail or email **registration form** to Amy Biddle. Pre-registration must be received by September 30, 2017 <https://cdn.extension.udel.edu/wp-content/uploads/sites/12/2017/08/25133805/LAERTform2017.pdf>

2017 Dickeya and Pectobacterium Summit

November 9, 2017

The Potato Association of America meetings were held last week in Fargo, ND. Interesting items of note were:

- Scottish scientists (including Ian Toth and Gerry Saddler) recommend regulating *Dickeya dianthicola* as A2 quarantine pest. They also recommend a zero tolerance for all *Dickeya* spp. on potatoes in Scotland.
- Work from North Dakota and Maine presented changes in dormant tuber tests that increased *Dickeya* recovery (reduced the false negatives) by as much as 30 percent.

- There is a new *Pectobacterium* species reported from Maine that affects plants in the field and tubers in storage.

- There may be some progress in chemical control of the pathogens (and NO, it is not phosphorous acid, Tanos, or anything else applied to the foliage!!!)

Sound interesting? Valuable? These, and other speakers will all be presenting on these and other topics at the Dickeya and Pectobacterium summit in Bangor on November 9, 2017.

This is an opportunity to hear the latest information that you, as a grower, need to know about these pathogens and diseases.

There is still room at the upcoming Dickeya and Pectobacterium Summit:

<https://extension.umaine.edu/agriculture/programs/dickeya-and-pectobacterium-summit/>

Mid Atlantic Crop Management School

November 14-16, 2017
Ocean City, MD

Registration is up for the 2017 Crop School, held at the Princess Royale in Ocean City, MD. The Mid-Atlantic Crop Management School provides continuing education in the areas of crop, nutrient and pest management, as well as soil and water. Credits may be obtained for certified crop advisors, as well as state level nutrient and pesticide certification for the Mid-Atlantic region.

The cost is \$285 prior to October 30th, and \$325 if received by November 6th. Please don't forget to call the Princess Royale to reserve your hotel room by October 13th.

You may register here:

<https://go.umd.edu/crop17registration>

Some Federal employees may need to use this link: <https://app.certain.com/profile/form/index.cfm?PKformID=0x26558978c60>

The full program for the 2017 Mid-Atlantic Crop Management School can be downloaded here: <https://app.certain.com/accounts/register123/umd/evens/crop-17/2017 CMS Program FINAL 2017-09-05.pdf>

Annie's Project: Women Managing Commercial Poultry

six classroom sessions starting on

Thursday, October 12, 2017

5:30 – 8:30pm

Two locations:

UD Carvel Research & Education Center,
Georgetown, DE

and

UD Paradee Center, Dover, DE

Annie's Project focuses on the many aspects of farm management and is designed to empower women in overall farm decision making and to build local networks throughout the state. The target audience is farmwomen and women involved in agriculture with a passion for business, agriculture and involvement in the farm operation. Topics for the sessions cover the five areas of Risk Management – Production, Marketing, Financial, Legal Risk, and Human Resources. This course is open to anyone interested in farm management practices.

The University of Maryland and Delaware Cooperative Extension will conduct the program at two sites. The classes will be offered at the same time. Zoom Web Conferencing will be used to bring the two locations together.

The cost of the entire course including meals and materials is \$75. There is an additional \$100.00 fee for FSA Borrower Training attendees. Please register by October 6th- space is limited.

For more information and to register visit the website <http://extension.umd.edu/annies-project/class-information> or call (410) 758-0166 or email jrhodes@umd.edu. If you require special assistance to attend the classes, please contact the site at least two weeks prior.

Upcoming Women in Ag Webinars

Noon – EST

Register

<http://extension.umd.edu/womeninag/webinars>

10/11/17: Urban Soil Quality

What are the contamination risks to be aware of when growing in urban soil? How should you test for soil contaminants? How do you interpret the test results? What treatment and management options exist? Which of those are practical? If you're interested in the

answers to any of these questions, tune in to this webinar.

10/25/17: Selling Your Farm Eggs to Retail Outlets: Direct Marketing Shell Eggs to Retailers, Wholesalers, and Food Service Facilities in Maryland

There is a strong consumer demand for locally produced foods including a call for more locally produced eggs. Real profit potential exists for Maryland egg producers to expand their markets in to retail, wholesale and Food Service Facilities in Maryland.

However, shell egg sales must meet several requirements for grading, packaging, labeling, invoicing and transportation protocols. This webinar will detail those requirements as well as provide links to agencies and resource providers concerning shell egg sales to retailers, Wholesalers and food service facilities in Maryland. This information can help egg producers expand their marketing beyond the direct to consumer market channel.

11/8/17: Crop Insurance Programs for 2018: Managing Risk in Your Operation: What About Crop Insurance?

Agriculture is full of risks and there are many options for producers to manage risks in the operation. One tool for producers to consider is purchasing crop insurance to cover certain losses. This webinar will cover the basics of crop insurance and various programs that producers might want to consider.

12/13/17: What is Annie's Project

Annie's Project is a national program that has gained momentum by connecting women in agriculture. The program teaches farm management, provides local resources and encourages networking. It also qualifies for USDA FSA Borrower Training. The webinar will explain the guiding principles of Annie's project, a typical program agenda and more details on Borrower Training.

2018 MidAtlantic Women in Ag Conference

February 8 & 9, 2018

Dover Downs, Dover, Delaware

February 8 is the preconference (social media or specialty crop production topics) and February 9 is the conference.

Details of the conference and registration will be available soon at: <http://extension.umd.edu/womeninag>

Webinar: Connecting Health Insurance and Agricultural Viability—Helping Farmers and Ranchers Address Health-Related Risks

Tuesday, October 10, 2017 1:30-3:30 p.m

Health, access to care and health insurance affect the vitality of agricultural enterprises and farm and ranch families, according to results from a national research project funded by the USDA. Designed for Extension, tax, loan, health and other agricultural advisors, this webinar will provide an overview of the research findings and introduce some practical tools that educators and advisors can use to help farmers and ranchers make informed decisions for their businesses and households.

Participants will leave the webinar with:

- An understanding of the intersection of health and agricultural business viability, grounded in 2016-2017 national research findings;
- Tools they can use in their work farmers, including worksheets, videos and other informational resources.
- Questions to ask farmers and ranchers to help incorporate health costs into farm enterprise and risk management planning.

Host:

Scott Loveridge, *North Central Regional Center for Rural Development*

Presenters:

Shoshanah Inwood, *The Ohio State University*
Bonnie Braun, *University of Maryland Extension*
Bob Parsons, *University of Vermont Extension*
Jake Jacobs, *University of Vermont Extension*
Maria Pippidis, *University of Delaware Cooperative Extension*

This webinar is FREE. Register online:

<https://www.hirednag.net/webinars>

For more information, please email Katlyn.Morris@uvm.edu. To request a disability-related accommodation to participate in this program, please email by September 19, so we may assist you.

The project was supported by the Agricultural and Food Research Initiative Competitive Program of the

USDA National Institute of Food and Agriculture (NIFA), grant number 2015-2014-05623.

Delmarva Small Ruminant Conference: All Worms, All Day

Saturday, December 9, 2017

Delaware State University

Dover, DE

Save the date. More details will be available soon!

Soil Health 101

Wednesday, November 1, 2017

DSU Outreach & Research Center

884 Smyrna Leipsic Road

Smyrna, DE

Join us to learn about:

- 4 basic principles of soil health
- Benefits to your Farm
- Why compaction is your #1 enemy and what to do about it

CEUs are pending for this free workshop.

Contact Jason Challandes, *Regional SARE Coordinator*, at jchallandes@desu.edu or (302) 388-2241 by October 30 to register.

Delaware Agriculture Week

Monday, January 8 – Thursday, January 11, 2018

Delaware State Fairgrounds

Harrington, DE

Delaware Agriculture Week will be held in Harrington at the Delaware State Fairgrounds from January 8-11, 2018. Delaware “Ag Week” is in its 13th year and is an ongoing collaboration between University of Delaware Cooperative Extension, Delaware State University Cooperative Extension and the Delaware Department of Agriculture.

Delaware Ag Week provides useful and timely information to the agricultural community and industry through educational meetings and events. In addition, it is a great time for networking and fellowship with old and new acquaintances.

The associated trade show will take place in the Dover Building from Monday afternoon, January 8 to Thursday January 11.

Delaware and Maryland recertification credits, Nutrient Management credits and CCA credits will be offered.

Tentative Session Schedule

Monday, January 8

Poultry
Beef
Fruit

Tuesday, January 9

General Vegetables
Fresh Market Vegetables
Soil Fertility
Hay and Pasture
Small Ruminant
Tile Drainage

Wednesday Jan. 10

Processing Vegetables
Vegetables – Special Session
Woodland Management
Direct Marketing
Risk Management
Small Flock Poultry
Soil Health

Thursday Jan. 11

Agronomy/Soybean
Urban Farm and Food

Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of September 21 to September 27, 2017

Readings Taken from Midnight to Midnight

Rainfall:

no rainfall recorded

Air Temperature:

Highs ranged from 87°F on September 24 to 77°F on September 26.

Lows ranged from 72°F on September 27 to 61°F on September 24 and September 25.

Soil Temperature:

73.9°F average

Additional Delaware weather data is available at <http://deos.udel.edu/>

Weekly Crop Update is compiled and edited by Emmalea Ernest, Associate Scientist - Vegetable Crops with assistance from Don Seifrit.

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