



# WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

Volume 24, Issue 27

September 23, 2016

## Last Issue of Weekly Crop Update for 2016 and Farewell to Two Longtime Contributors

This is the last issue of Weekly Crop Update for the 2016 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. My thanks as well to our office staff at the REC, who make sure the WCU gets to our fax and mail subscribers.

Best wishes and many thanks to Richard Taylor, who retired in June, for many years of informative, detailed articles on agronomic crop management. Farewell, also to Joanne Whalen, who will retire later this fall. Next year's WCU will not be the same without you!

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](mailto:emmalea@udel.edu)

## Vegetable Crops

### Cole Crops Affected by Heat, Uneven Moisture -Gordon Johnson, Extension Vegetable & Fruit Specialist; [gjohn@udel.edu](mailto:gjohn@udel.edu)

September-maturing cole crops have been negatively affected by the high August and September temperatures and uneven moisture (dry to wet). While cabbage, kale, and collards can tolerate high temperatures; Brussels sprouts, broccoli, and cauliflower are more sensitive to excess heat. These three crops do best under moderate and even temperatures and even water supplies. They do not develop properly when temperatures are in the 90s.

In broccoli, we are seeing knuckling, that is the uneven development of the crown leading to a bumpy appearance and looser head. This reduces the grade and price potential. In Brussels sprouts high temperatures have caused sprouts to be very loose, elongated and unmarketable. In cauliflower we are finding ricing, purpling, and loose curd.

The following are some other disorders that can be prevalent when cole crops are exposed to uneven moisture and excessive heat.

### **Tipburn of Cauliflower, Cabbage, and Brussels Sprouts**

This problem can cause severe economic losses. Tipburn is a breakdown of plant tissue inside the head of cabbage, individual sprouts in Brussels sprouts, and on the inner wrapper leaves of cauliflower. It is a physiological disorder which is associated with an inadequate supply of calcium

in the affected leaves, causing a collapse of the tissue and death of the cells. Calcium deficiency may occur where the soil calcium is low or where there is an imbalance of nutrients in the soil along with certain weather conditions. (High humidity, low soil moisture, high potash and high nitrogen aggravate calcium availability). Secondary rot caused by bacteria can follow tipburn and heads of cauliflower can be severely affected. Some cabbage and cauliflower cultivars are relatively free of tipburn problems.

### **Cabbage Splitting**

Cabbage splitting can develop when moisture stress is followed by heavy rain. The rapid growth rate associated with rain, high temperatures and high fertility cause the splitting. Proper irrigation may help prevent splitting and there are significant differences between cultivars in their susceptibility to this problem.

### **Lack of Heads in Broccoli and Cauliflower**

During periods of extremely warm weather (days over 86°F and nights 77°F) broccoli and cauliflower can remain vegetative (does not head) since they do not receive enough cold for head formation. This can cause a problem in scheduling the marketing of even volumes of crop.

### **Cauliflower Purpling**

The market demands cauliflower which is pure white or pale cream in color. Heads exposed to sunlight develop a yellow and/or red to purple pigment. Certain varieties such as Snow Crown are more susceptible to purple off-colors, especially in hot weather. Self-blanching varieties have been developed to reduce problems with curd yellowing. For open headed varieties, the usual method to exclude light is to tie the outer leaves when the curd is 8 cm in diameter. Leaves may also be broken over the curd to prevent yellowing. In hot weather blanching may take 3 to 4 days, but in cool weather, 8 to 12 days or more may be required. Cauliflower fields scheduled to mature in cool weather (September and October) that are well supplied with water and planted with "self-blanching" cultivars will not need tying. Newer orange cauliflower and green broccoflower varieties are being planted. They are less susceptible to off-colors but still can develop purpling under warm conditions.



Purpling in cauliflower

### **Cauliflower Ricing**

"Riciness" and "fuzziness" in cauliflower heads is caused by high temperatures, exposure to direct sun, too rapid growth after the head is formed, high humidity, or high nitrogen. "Ricing" is where the flower buds develop, elongate and separate, making the curd unmarketable.



"Riciness" in cauliflower



"Fuzziness" in cauliflower

### Development of Curd Bracts in Cauliflower

Curd bracts or small green leaves between the segments of the curd in cauliflower is caused by too high of temperature or drought. High temperatures cause a reversion to vegetative growth with production of bracts on the head. In a marketable cauliflower head, the individual flower buds are undeveloped and undifferentiated.

### Loose Heads in Cauliflower, Loose Sprouts in Brussels sprouts and Premature Flowering or Knuckling in Broccoli

Loosely formed curds in cauliflower can be due to any stress that slows growth making them small or open. Fluctuating temperatures and moisture will also cause less compact growth. In contrast, excess vegetative growth caused by excessive nitrogen can also cause loose heads in cauliflower and broccoli. Knuckling in broccoli is uneven growth in the crown leading to a bumpy appearance. Premature flowering and open heads in broccoli can be brought on by high temperatures. High temperatures can cause loose sprouts in Brussels sprouts.



Knuckling, loose heads and discoloration in broccoli

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**Many of Our Watermelon Fields May be Low in Sulfur** - Jerry Brust, IPM Vegetable Specialist, University of Maryland; [jbrust@umd.edu](mailto:jbrust@umd.edu)

For the last 3 out of 5 years (yes I know, but I get busy with other things) I have been looking

at whether or not adding extra sulfur to watermelon is worth it. I was asked a similar question from a couple of Eastern Shore growers awhile back and I said I was not sure and I'd look into it. So this is going to be a quick summary of the results for the three trials, two over on the Eastern Shore and one on the Western Shore. Seeded watermelon was used in 2 years of the study with seedless watermelon used in one year of the study. The set-up is pretty straight forward: soil samples were taken to see what nutrients were needed. Based on this we added the recommended amount of sulfur (we used different soil testing labs and used multi samples with similar results and recs). The average amount of sulfur to add was between 15 and 25 lbs/a for the 3 trials. Once sulfur and the other nutrients were added the treatments were: 0, 10, 20, 30 and 40 lbs per acre of extra sulfur being added to the plots. Petiole samples were taken and notes on first flowering, first female flowers, % fruit set, etc. were noted. To save time and because this year's results were equivalent to the first 2 years of the trial I'll only show this season's results. Crimson Sweet was the cultivar used for 2016.

Yields of watermelon were significantly greater in the 20 and 30 extra pounds of sulfur compared with the control (Fig. 1). Over the 3-years of trials there was no significant difference between 20 and 30 lbs. and very little difference between 30 and 40 lbs. So an average addition of 20-30 lbs. is a good starting place.

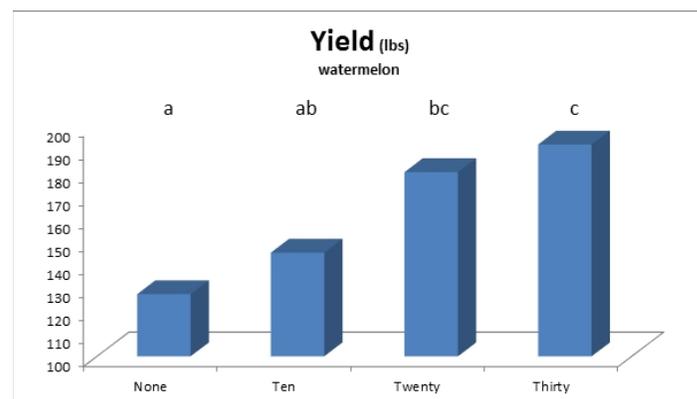


Figure 1. Yield of watermelon with added amounts of sulfur (lbs/a)

Usually there was no difference in the percent sugar content of the watermelons among any of the sulfur treatments, although for 2016 only the

30 lbs of extra S was significantly greater than the control (Fig. 2). There were no other differences in any of the other measurements between treatments. After two trial years I quit using the 40 lbs of sulfur treatment because that level of sulfur never was much different from the 30 lbs. treatment. I will need to do this study at additional locations for a number of years to be more confident of these results.

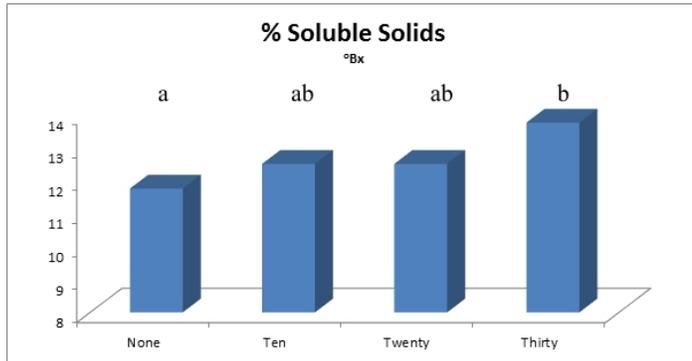


Figure 2. Percent sugars in watermelon fruit with differing levels of sulfur.

The reason I am talking about it now is because of what else I did this past year that I should have started 4 years ago. This year I randomly took petiole samples from the watermelon fields. The one thing most of them had in common was a deficiency in sulfur (Fig. 3).

There may have been other deficiencies such as with phosphorous or manganese or nitrogen, etc. but only sulfur was consistently found to be deficient in 52% of the samples with an additional 23% being on the low end of "low". This was not a big survey (27 fields total; 65% from the Western Shore, 35% from the Eastern Shore) and it was done during a strange weather year and S levels may have been abnormally low. Nevertheless the results of the survey amazed me, so I decided to talk about my sulfur study a little early. For now what growers should do next year, if they are not already doing it, in their watermelon fields is take petiole samples a couple of weeks before first harvest to see where they stand.

I will take more petiole samples from watermelon fields in the coming seasons and repeat the sulfur-additions studies to see if the results hold up. I will talk about the results of the 3-year study in more detail at some of the

winter meetings that are coming up. If anyone has any suggestions as to anything else I need to look at in these studies please let me know.

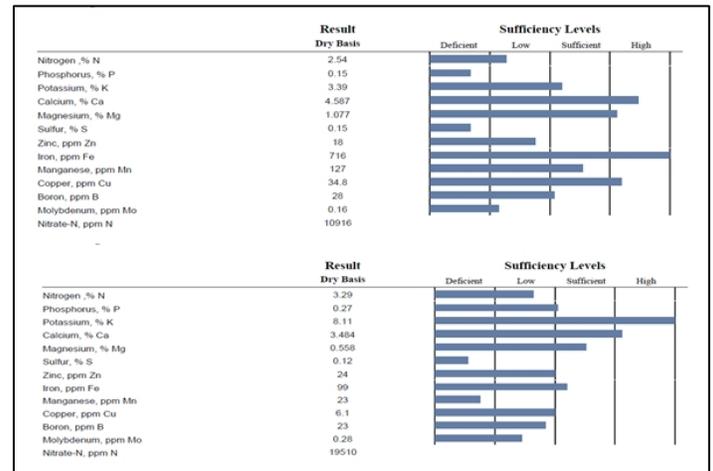


Figure 3. Two examples of petiole nutrient sample results taken from 2 different watermelon fields in 2016.

**Best Management Practices for Dickeya in 2017 Potato Crop - Nathan Kleczewski, Extension Specialist - Plant Pathology; [nkleczew@udel.edu](mailto:nkleczew@udel.edu) and Andy Wyenandt, Specialist in Vegetable Pathology, Rutgers University; [wyenandt@aesop.rutgers.edu](mailto:wyenandt@aesop.rutgers.edu)**

1. Avoid purchasing varieties (with lot numbers) which are known to have Dickeya from any source.
2. Do not purchase seed from those growers/brokers with a known history of Dickeya.
3. Do not rely on Blackleg tolerance levels reported on the North American Seed Health Certificates or the Florida Test results for presence of Dickeya in ANY seed lot from ANY source.
4. Request PCR testing for *Dickeya dianthicola* from supplier (directly from grower/or broker) using an independent lab. Reject any load if no Dickeya test results are available or those seed lots that have tested + for Dickeya.
5. All equipment during seed piece cutting needs to be disinfested on a regular (daily) basis,

and/or disinfested between lot numbers and/or varieties. Quaternary ammonium is a good option for this purpose.

6. Fields with a known history of *Dickeya* should not be planted back into potato for at least 3 years or longer.

7. Avoid planting brassicas and onions in potato rotations, especially in fields with history of *Dickeya*. This includes cover crops containing brassicas.

8. Wash/dump water needs to be displaced in an area away from packing shed, particularly those sheds near any production field or source of ground water that may be used for irrigation.

9. Culled potatoes need to be dumped away from any production field, source of ground water, or any area where contamination of equipment may occur.

10. Rogue or volunteer plants appearing in fields with known *Dickeya* infestation the previous year or any prior year need to be removed, and/or sampled and tested if "Blackleg" symptoms are present.

11. There is no chemical control for *Dickeya*. Copper sprays, etc. will not help with controlling this disease.

12. All potato growers with fields with *Dickeya*-suspect symptoms need to be sampled and tested during the growing season.

13. Any grower which rejects a load of seed for suspect *Dickeya* should report information to your local Extension Agent, specialist, or Potato Growers Association.

14. Sample and re-test truckloads of seed potato for *Dickeya* once delivered. All results should be reported to your local Extension Agent, specialist, and/or Potato Growers Association.

15. All growers are encouraged to report every variety, lot number (North American Seed Cert), field (general) location, and testing results each spring so *Dickeya* can be tracked and that this

information be publically available to all potato growers in and out of the state.

16. Growers using surface water (pond or stream) should be encouraged to do monthly water testing for *Dickeya*, especially if water source is near a field with known *Dickeya* infestation.

## Agronomic Crops

**Addressing New Pest Developments in Small Grain IPM Systems** - *Joanne Whalen, Extension IPM Specialist; [jwhalen@udel.edu](mailto:jwhalen@udel.edu), Nathan Kleczewski, Extension Specialist - Plant Pathology; [nkleczew@udel.edu](mailto:nkleczew@udel.edu), Mark VanGessel, Extension Weed Specialist; [mjv@udel.edu](mailto:mjv@udel.edu), Bill Cissel, Extension IPM Agent; [bcissel@udel.edu](mailto:bcissel@udel.edu)*

This was the final season of our Small Grain IPM project addressing the following two objectives: (1) aphid and barley yellow dwarf virus (BYD) management and (2) weed management of newly emerging weeds and resistance management. Yearly summaries of our statewide survey results (2013-2016) for aphids, BYD and weeds can be found on our IPM webpage (<http://extension.udel.edu/ag/insect-management/e-ipm-implementation-projects/>).

In addition to the reports, we also developed the following educational materials to address monitoring and management of aphids, BYD, and weeds in small grains:

BYD Management in Small Grains (fact sheet)  
<https://cdn.extension.udel.edu/wp-content/uploads/2015/10/14051904/BYDV-Final-Draft-9-12-16.pdf>

Scouting for Aphids in the Fall in Small Grains  
[https://www.youtube.com/watch?v=He3nTpL6k\\_U&nohtml5=False](https://www.youtube.com/watch?v=He3nTpL6k_U&nohtml5=False)

Photo Library of Aphids Infesting Small Grains  
<https://www.flickr.com/photos/139973317@N03/sets/72157664513242564/>

Photo Library of BYD Virus Symptoms in Small Grains  
<https://www.flickr.com/photos/139973317@N03/sets/72157666301880210/>

Weed Management Guides (regional publication)  
<http://extension.udel.edu/ag/weed-science/weed-management-guides/>

*A couple of key findings:*

- Although BYD incidence levels were relatively low throughout the state, there were fields where management should be considered. The best management options are to avoid early planting, use an insecticide treatment if you do plant early (NOTE - seed treatments only will provide 2-3 weeks control), ensure a good burndown of all grassy weeds that could be a host for the virus at least 2 weeks prior to planting, and selection of a tolerant variety.
- The “experimental” thresholds that we tested from the South appear to be too low for our area. Unfortunately we do not have any research based aphid thresholds for fall management of aphids. Foliar aphid controls may be considered if you have a history of BYD in your fields, aphids are present and factors occur that increase the risk of BYD (early planting, use of a BYD susceptible variety, proximity to pastures or large wooded areas, late warm fall and/or early warm spring)
- Surveying small grain fields in the fall last past three years we found henbit and common chickweed to be the two most common species (in almost 90% of the fields); field pansy and annual bluegrass were present in 60 to 65% of the fields, and cress (a small mustard species) and ivyleaf speedwell were found in 30 to 40% of the fields. See the following article for more information on managing some of these common species.

We hope you find these resources useful. We will be looking for your input this fall after you have had time to review the information. In the meantime, if you were able to watch the aphid scouting youtube video, please consider clicking on the following survey link and answer two poll questions

<https://www.surveymonkey.com/r/75BRV9W>

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## Considerations for Small Grain Weed

**Control** - Mark VanGessel, *Extension Weed Specialist*; [mjv@udel.edu](mailto:mjv@udel.edu)

For no-till small grain fields, a non-selective herbicide needs to be used prior to planting. If grasses or perennial weeds are present, glyphosate is a better choice than paraquat. Fields worked with a vertical tillage implement for residue management often need a non-selective herbicide since these implements are not very effective tools for weed control.

There are few effective herbicides labeled for preemergence applications. Sharpen is labeled for wheat and barley but we have limited data in the region. Valor or Afforia can be used with the burndown application, but there must be a 7-day period between application and planting wheat. We have seen some wheat stunting and injury on coarse-textured soils, particularly if there is rainfall shortly after planting. Plant wheat at least 1-inch deep, otherwise risk of injury is increased. Neither product is appropriate for fields planted by “spinning the seeds” on the soil surface and shallow incorporation with a disk or turbo-till. Valor and Afforia are not labeled for barley.

Axiom, Anthem Flex and Zidua can be used after wheat emergence, typically spike stage. These products are only labeled for winter wheat, not barley. They do not provide control of emerged weeds but can have utility in situations requiring residual control shortly after planting. They all have good activity on annual ryegrass, but they may not provide full-season control. In limited trials, Anthem Flex and Zidua have provided good control of annual bluegrass. The labels of all three products do not allow spinning the seeds onto the soil surface and shallow incorporation. Seeds need to be planted with a drill and refer to the labels for precautions on seeding depth.

Products that provide postemergence control include: Glory, Harmony, Harmony Extra, Huskie, Starane Ultra, Osprey, PowerFlex, Axial XL, or 2,4-D. Other labeled herbicides with a limited fit include Finesse, Maverick and Prowl H2O.

Control of annual ryegrass has been good with Osprey, PowerFlex, or Axial XL. However, ALS-resistant ryegrass has been identified in Delaware and these populations will not be controlled by Osprey or PowerFlex. Furthermore, Finesse will not control these populations. In situations where ALS resistance is suspected, use of Axiom or Zidua shortly after planting, followed Axial XL is the best program.

ALS-resistant common chickweed has been confirmed in Delaware. These biotypes are not controlled with Harmony Extra, Osprey, PowerFlex or Finesse. UD Weed Research Program has had good control with Glory. There is a 24-c label for Glory in Delaware (in other states, check before applying). Applications in the early spring have provided better crop safety than fall application. Be sure to read the label for application rates (which change with application timing). Some wheat and barley varieties are sensitive to Glory, so be careful to use on varieties with known crop safety. The other option for common chickweed control is Starane Ultra which has shown fair to good control, but often not killing common chickweed, but providing good suppression. Starane Ultra can be used either in the fall or spring.

Jagged chickweed control was evaluated last year in UD trials, and Glory and Huskie provided good postemergence control.

Henbit control with Harmony Extra has been inconsistent in our trials and many reports from the industry have confirmed our observations. Starane Ultra, Glory or Huskie have all provided good to excellent henbit control.

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**Thinking About Canola? Think About White Mold.** - Nathan Kleczewski, Extension Specialist - Plant Pathology; [nkleczew@udel.edu](mailto:nkleczew@udel.edu)

Several growers are considering planting canola this fall as a result of a recent contract placed by Perdue. If you do decide to plant canola this fall be aware that this plant is an excellent host for Sclerotinia white mold (Figure 1). Our collaborators in New Jersey recently spent three years looking at canola production. They told a

story about their experience with canola at the Rutgers vegetable research farm in Bridgeton. A single season of canola resulted in immense development of white mold in the canola and subsequent issues with white mold at the farm on other vegetable crops.



Figure 1. Canola with signs of white mold.

When deciding on fields for canola, avoid those with any history of white mold, whether it be in vegetables, sunflowers, or soybeans. In addition, ensure that you do not plant canola in front of vegetable crops or soybeans, where white mold can be an issue. Cucurbits would likely be the best option for a crop following canola. For more information on Sclerotinia on canola see [www.ag.ndsu.edu/pubs/plantsci/crops/pp1410.pdf](http://www.ag.ndsu.edu/pubs/plantsci/crops/pp1410.pdf)

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**Small Grain Variety Selection in 2016/17 -**  
*Nathan Kleczewski, Extension Specialist - Plant Pathology; [nkleczew@udel.edu](mailto:nkleczew@udel.edu)*

Growers are currently selecting wheat varieties for the 2016/17 season. There are many new wheat releases that yield very well and are not magnets for Fusarium head blight (FHB). This differs from years past, where varieties with moderate resistance to FHB were not the best yielders. **Thus, growers using these varieties should be in a better position from a quality and yield perspective in a year favorable for FHB and not suffer yield penalties in seasons where FHB is not a concern.**

According to our misted nursery data from this last season, the following varieties provided the best resistance to FHB and DON (listed according to DON levels in grain):

**MBX 15-E-229** (a new release from Jose Costa's breeding program at UMD that should be available this season)

**FS 860**

**USG3197**

**FSX 871**

**SS 8530**

The full dataset from the misted nursery can be found at the SCABSMART website:

[http://scabsmart.org/soft\\_red\\_winter\\_wheat\\_southern\\_region](http://scabsmart.org/soft_red_winter_wheat_southern_region)

Information on yield for these varieties can be found in the UD and UMD small grains variety trials: <http://extension.udel.edu/ag/field-crop-resources/variety-trials-corn-hybrids-small-grains-soybeans/> and <http://www.psla.umd.edu/extension/extension-project-pages/small-grains-maryland>. **You will notice that many of these varieties were near the top in yield for both states in 2015/16.**

Growers are encouraged to try some of these varieties out and see how they fit in their production systems.

We also are collecting baseline data on the FHB misted nursery this season. Please follow the link to take a brief survey on the nursery and how we can make it work better for you:

[https://ume.qualtrics.com/SE/?SID=SV\\_a3kV9o79EfgXp5j](https://ume.qualtrics.com/SE/?SID=SV_a3kV9o79EfgXp5j)

## General

### Delaware Sustainable Energy Utility and EnSave Announce New Program for Delaware Farms

The Delaware Sustainable Energy Utility is pleased to announce the launch of the Energize Delaware Farm Program to help Delaware agricultural producers reduce their energy costs.

The program will offer energy audits to identify opportunities to save energy and money. Producers can then apply for a range of services including low-interest loans, grants for energy efficiency projects, free direct-installed lighting measures and solar renewable energy credit (SREC) purchases.

A key part of the program will be connecting participants with programs that can provide additional funding — such as Delaware's Green Energy Grant, the United States Department of Agriculture's Rural Energy for America (REAP) and Environmental Quality Incentives (EQIP) Programs. This will leverage additional funds and maximize energy and cost saving opportunities available to the farm.

"This program offers something for every producer in Delaware by providing funding options for both energy efficiency and renewable energy," says Tony DePrima, Executive Director of the Delaware Sustainable Energy Utility. "While some Delaware producers have already made great strides in reducing their energy use, there is still a great need for technical assistance and funding. By providing these services, we are helping these hard-working Delaware businesses position themselves for greater energy independence."

The DESEU has selected EnSave, Inc., an energy efficiency consulting firm dedicated to providing agricultural energy efficiency programs and energy audits, to implement the program. Many producers in the Delmarva peninsula are familiar with EnSave's work, as the firm has completed over 300 audits in Maryland and Delaware since 2009. "We are pleased to continue our long-standing relationships in Delaware by working with the Sustainable Energy Utility on this

dynamic program," says Craig Metz, EnSave CEO. "Delaware has a wonderfully close-knit agricultural community, and we are looking forward to working with these farms to save energy, save money, and reduce greenhouse gas emissions."

The program is currently accepting applications on a first-come, first-served basis. To apply for the program or to learn more, call EnSave at (800) 732-1399, or visit <http://www.energizedelaware.org/Energize-Delaware-Farm-Program/>.

*EnSave is a diversified energy and environmental services company specializing in turn-key program development and implementation. Since 1991, EnSave has designed and implemented energy efficiency programs for a variety of clients including state and federal agencies, investor-owned utilities, and rural electric cooperatives. Having focused heavily on the agricultural and food processing sectors, EnSave has developed a reputation as the leader in agricultural energy efficiency. Additionally, EnSave has a rapidly growing industrial energy auditing and sustainability consulting division.*

## Announcements

### Free Webinars, Sponsored by the Mid-Atlantic Women in Agriculture

**9/28: SARE Farmer Grower Grants** - The goal of the USDA Northeast Sustainable Agriculture Research & Education (SARE) Farmer Grant program is to help farmers explore sustainable and innovative production and marketing practices, often through an experiment, trial, or on-farm demonstration. SARE defines sustainable practices as those that are profitable, environmentally sound, and beneficial to the wider farm community. This unique grant program funds a wide variety of on-farm projects, and has a simple application process geared towards farmers. This webinar will provide insight into this specific grant program including proposal guidelines, how to apply and tips on writing a good proposal. Note: Proposal deadlines are November 29 with awards announced in March. <http://www.nesare.org/Grants/Get-a-Grant/Farmer-Grant>

**10/12: Live Streaming for Advocating and Direct Marketing** - Live streaming video is the hottest technique in social media. Meerkat and Periscope were early favorites, and now Facebook has gotten in on the act! with much success. Live streaming is an in-the-moment, authentic way of communicating. Learn what equipment you need and the basic guidelines for sharing your interests, cause or business to a wider audience, perhaps global one!

**10/26: Understanding Buying and Selling Farmland** - Learn about every aspect of a typical real estate transaction. Understand the roles of the players involved- the real estate agents, the title company and the lawyers. Understand the meaning of the legalese in a typical farmland purchase contract, deed, mortgage and title insurance policy. Don't go through another settlement signing paperwork you don't understand! This webinar will make you a smarter buyer and seller of farmland.

**11/9: Energy Leases: Understanding What They Mean and How They Can Impact You** - Landowners around the Mid-Atlantic have received offers to lease their land for wind, solar or other renewable energy leases. These leases can often be long documents and difficult to understand. Ashley Ellixson and Paul Goeringer will walk you through the legal implications of these leases to better aid you in making a decision.

**12/14: Creating a Farm Loan Package** - This webinar will provide a basic overview of a farm loan package. It is a practical program with real-world examples and helpful tips. The course is directed to those interested in borrowing money to start, grow or expand their business.

To register:

<http://www.eventbrite.com/e/wednesday-webinars-registration-11452674257>

Webinars begin at noon EST. Duration is approximately 1 hour. For optimal performance we suggest using Internet Explorer as your web browser and connecting via Ethernet connection instead of wireless (wireless will work, but a hard line is more stable)

See website for more information and other upcoming topics: <https://extension.umd.edu/womeninag/webinars>

If you do not have access to high speed internet and would like to participate in one of the above webinars, contact Tracy Wootten at [wootten@udel.edu](mailto:wootten@udel.edu).

## Cover Crops Workshop & Field Day

Thursday, September 29 8:30 a.m. - 3:00 p.m.  
DSU Outreach and Research Center  
884 Smyrna-Leipsic Rd., Smyrna, DE

### Guest Speaker: *Steve Groff*

Steve Groff grows 200 acres of grain crops, 30 acres of pumpkins, and two acres of high tunnel heirloom tomatoes in Lancaster County, PA. Each year, he oversees hundreds of replicated research plots, focusing on the economics and nutritional influence of cover crops. He is a cover crop innovator who, along with Dr. Ray Weil, was instrumental in developing the Tillage Radish® over a 10-year period.

### Topics:

- How to choose the right varieties to achieve your goals
- Strategies to take cover crops to the next level
- Chance to see summer cover crops
- Information for all farmers; vegetable and grain
- Cover Cropping as part of a nutrient management plan
- And much more...

**Credits:** 4 CEU credits for Certified Crop Advisors  
4 Delaware Nutrient Management Credits

*For more information, assistance due to disabilities, or to register for this free DSU Cooperative Extension workshop, which includes lunch contact Jason Challandes: [jchallandes@desu.edu](mailto:jchallandes@desu.edu), 302.388.2241*

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## Mid-Atlantic Crop Management School

November 15-17, 2016  
Princess Royale Hotel in Ocean City, MD

Registration will open on Tuesday September 27, 2016 for the 22<sup>nd</sup> annual Mid-Atlantic Crop Management School. This year's school will feature 2 ½ days of timely presentations in the areas of crop management, nutrient management, pest management, soil and water management, and climate. This year, the school will also feature the popular Crop School on Wheels field tour (limited to 50 participants). Nutrient management, pesticide, and CCA credits available. Register early for the best selection of sessions.

The session schedule is online at:  
<https://cdn.extension.udel.edu/wp->

[content/uploads/sites/12/2016/09/23151701/2016\\_CM\\_S\\_Program\\_Final.pdf](#)

Registration information will be posted at  
<http://www.event.com/events/2016-crop-management-school/event-summary-bbd4a7d2717545af9770626ef761a930.aspx?tw=E3-C1-0B-14-32-A0-CB-AB-1C-D6-9A-06-46-74-20-5F>.

Contact Amy Shober ([ashober@udel.edu](mailto:ashober@udel.edu)) or Jarrod Miller ([jarrod@umd.edu](mailto:jarrod@umd.edu)) with questions about the school. We look forward to seeing you there.

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## Farm Transfer Communication Webinar The Farm Whisperer by David Specht

Tuesday, November 29, 2016 7:00 p.m.  
University of Delaware Paradee Center  
69 Transportation Circle, Dover, DE 19901

Farm succession planning is a business and risk management practice that is critical to the agricultural industry and to the health of families and farm businesses. These sessions will present farmers with the knowledge to begin or continue the process of succession planning. Families are encouraged to attend the workshop together.

### Please arrive 15 minutes early

*For more information and to pre-register please contact:*

**Dan Severson**  
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## Delaware Agriculture Week 2017 Monday, January 9 – Thursday, January 12

Delaware Agriculture Week will be held in Harrington at the Delaware State Fairgrounds from January 9-12, 2017. Delaware “Ag Week” is in its 12th 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 9 to Thursday January 12.

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

#### **TENTATIVE SESSION SCHEDULE**

##### **Monday, January 9**

Poultry  
Beef  
Fruit

##### **Tuesday, January 10**

General Vegetables  
Fresh Market Vegetables  
Equine  
Hay and Pasture  
Grain Marketing  
Small Ruminant

##### **Wednesday January 11**

Processing Vegetables  
Vegetables – Special  
Precision Ag  
Woodlot Management  
Direct Marketing  
Risk Management  
Small Flock Poultry

##### **Thursday January 12**

Agronomy/Soybean  
Soil Health  
Grain Marketing  
Urban Farm and Food

## **Weather Summary**

Carvel Research and Education Center Georgetown, DE

**Week of September 15 to September 21, 2016**

**Readings Taken from Midnight to Midnight**

#### **Rainfall:**

4.15 inches: September 19  
0.05 inch: September 20  
0.01 inch: September 21

#### **Air Temperature:**

Highs ranged from 89°F on September 18 to 73°F on September 15.

Lows ranged from 71°F on September 20 to 55°F on September 17

#### **Soil Temperature:**

74.2°F average

Additional Delaware weather data is available at  
[http://www.deos.udel.edu/monthly\\_retrieval.html](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, Associate Scientist - Vegetable  
Crops*

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