

# WEEKLY CROP UPDATE



UNIVERSITY OF DELAWARE  
COOPERATIVE  
EXTENSION

Volume 32, Issue 1

January 19, 2024

## Notes

### Agricultural Pest Management Needs Assessment Survey

David Owens, Extension Entomologist,  
[owensd@udel.edu](mailto:owensd@udel.edu)

We are in the process of writing a grant proposal that funds a very significant chunk of UD and DSU integrated pest management extension programs and we would like to hear from you to help guide our narrative and proposed outputs. Please take a few moments to answer a very short, 7 question survey:

[https://delaware.ca1.qualtrics.com/jfe/form/SV\\_8IkutN5bHUbib7o](https://delaware.ca1.qualtrics.com/jfe/form/SV_8IkutN5bHUbib7o) or by following the QR code:



### Avipel Update

Drew Harris, Kent Co. Ag Extension Agent;  
[raharris@udel.edu](mailto:raharris@udel.edu)  
Nick Adams, New Castle Co. Ag Extension Agent;  
[naadams@udel.edu](mailto:naadams@udel.edu)  
Cory Whaley, Sussex Co. Ag Extension Agent;  
[whaley@udel.edu](mailto:whaley@udel.edu)  
David Owens, Extension Entomologist,  
[owensd@udel.edu](mailto:owensd@udel.edu)

The hopperbox Avipel treatment registration was pulled last year by EPA just before the planting

season. It will not return in time for the 2024 planting season. There is a liquid version available for seed treatment; available in quart or gallon sized containers. It should be applied at a rate of 13.5 fluid ounces per 100 pounds of seed. There is a seed treater in PA that has been working with Arkion to apply the seed treatment. Your local seed dealer or treater might not be familiar with the liquid treatment, in which case it would be good to start the conversation with them early. If any seed treaters or chemical dealers have questions, they can contact Jeremy Van Oort with Arkion Life Science, [j.vanoort@att.net](mailto:j.vanoort@att.net).

### Slides from Ag Week Fruit and Vegetable Sessions

Emmalea Ernest, Extension Fruit & Vegetable Specialist; [emmalea@udel.edu](mailto:emmalea@udel.edu)

Slides and handouts from the fruit and vegetable sessions at Ag Week are shared at the links below with the permission of the presenters.

#### FVGAD Fruit Session

##### Key Insect Pests to Monitor in Fruit

Dr. David Owens, Extension Entomologist,  
University of Delaware  
[SLIDE SET](#)

##### Anthracnose in Strawberries

Dr. Mengjun Hu, Assistant Professor,  
Department of Plant Science & Landscape  
Architecture, University of Maryland  
[SLIDE SET](#)

### **Indoor Strawberry Production in a Retrofitted Poultry House**

*Dr. Gordon Johnson, retired Extension Fruit & Vegetable Specialist, University of Delaware*  
[SLIDE SET](#)

### **Identification and Management of Two Recently Identified Strawberry Pathogens: Neopestalotiopsis and Phytophthium**

*Jill Pollok, Plant Diagnostician, University of Delaware*  
[SLIDE SET](#)

### **First Impressions from the Carvel Fruit Demo Plot with a Focus on Bramble Varieties**

*Dr. Emmalea Ernest, Extension Fruit & Vegetable Specialist, University of Delaware*  
[SLIDE SET](#)

### **FVGAD General Vegetable Session**

#### **Update on Produce Food Safety Regulations**

*Justin Grimminger, Delaware Department of Agriculture*  
[SLIDE SET](#)

#### **Update on Produce Food Safety Research and Outbreaks**

*Kyle McCaughan, Graduate Student, University of Delaware*  
[SLIDE SET](#)

#### **NRCS Farm Bill Funding Opportunities**

*Brooke Jones, Assistant State Conservationist-Programs*  
[SLIDE SET](#)

#### **Maintaining and Building Soil Organic Matter**

*Dr. Sjoerd Duiker, Professor of Soil Management & Applied Soil Physics, Penn State*  
Slides Currently Unavailable

#### **Willing to Change: Farming in South Texas**

*Kent Schwartz*  
Slides Unavailable

### **FVGAD Fresh Market Session**

#### **What Happened to the Insect Pests in 2023?**

*Dr. David Owens, Extension Entomologist, University of Delaware*  
[SLIDE SET](#) | [HANDOUT](#) (Protecting Sweet Corn from Corn Earworm)

### **Marketing Expense Calculator**

*Nate Bruce, Farm Business Management Specialist, University of Delaware*  
[SLIDE SET](#) | [EXCEL TOOL](#) (Direct to Consumer Market Analysis)

### **Managing Bacterial Disease in Vegetables**

*Dr. Alyssa Koehler, Extension Field Crops Pathologist, University of Delaware*  
[SLIDE SET](#)

### **Update on Weed Science Research and a Refresher on Reading Labels**

*Dr. Mark VanGessel, Extension Weed Science Specialist, University of Delaware*  
[SLIDE SET](#)

### **Dealing with High Salts in High Tunnels**

*Dr. Elsa Sanchez, Professor of Horticultural Systems Management, Penn State*  
[SLIDE SET](#)

### **Delaware Farm Fresh: A New Marketing Co-Op**

*Terry Baker*  
[SLIDE SET](#)

### **Heat Stress Management in Lettuce and Bell Peppers; Variety Trial for Snow and Snap Peas; Specialty Pumpkins that are Edible and Ornamental**

*Dr. Emmalea Ernest, Extension Fruit & Vegetable Specialist, University of Delaware*  
[SLIDE SET](#)

### **FVGAD Processing Vegetable Session**

#### **Pythium Management to Maintain Stands and Vigor in Sweet Corn and Snap Beans**

*Dr. Alyssa Koehler, Extension Field Crops Pathologist, University of Delaware*  
[SLIDE SET](#)

#### **Seedcorn Maggot and Corn Earworm Updates and Outlooks**

*Dr. David Owens, Extension Entomologist, University of Delaware*  
[SLIDE SET](#) | [HANDOUT](#) (Protecting Sweet Corn from Corn Earworm)

#### **No-Till Sweet Corn**

*Dr. Elizabeth Maynard, Clinical Engagement*

Professor of Horticulture, Purdue University  
[SLIDE SET](#)

### **Snap Bean Variety Trials, Lima Bean Breeding and Research Updates**

Dr. Emmalea Ernest, Extension Fruit & Vegetable Specialist, University of Delaware  
[SLIDE SET](#)

### **Soybean Insect Pest Impact Survey**

David Owens, Extension Entomologist,  
[owensd@udel.edu](mailto:owensd@udel.edu)

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### **2024 AI-CLIMATE Stakeholder Survey**

Rose Ogutu, Horticulture Specialist, Delaware State University [rogutu@desu.edu](mailto:rogutu@desu.edu)

The AI-CLIMATE Institute for Climate-Smart Agriculture was established in 2023 to help improve farmers', foresters', and ranchers' ability to make more informed decisions and respond to climate change  
(<https://cse.umn.edu/aiclimate>).

Climate change is causing disruptions to agricultural and forestry systems through its impact on temperatures, precipitation, extreme weather events, uncertainty and variability, and changes in weeds, pests, and diseases.

Machine learning (artificial intelligence or AI) is the science of developing computer systems that can perform tasks that normally require human intelligence, such as recognizing patterns or making decisions. AI technology can process large amounts of data to improve decision-making.

Our team is exploring compelling AI-powered knowledge and solutions - for example to enhance the measurement of greenhouse gases (GHGs) and create specialized decision-support tools for farms. The new institute is a collaboration among the University of Minnesota, Colorado State, Cornell, **Delaware State**, North Carolina State, Purdue, the USDA National Institute for Food and Agriculture, and the National Science Foundation. Watch a video about the work of our team: "Curbing Climate Change with Artificial Intelligence," UMN Dept.

of Computer Science and Engineering, December 6, 2023.

We need your input to develop the most useful AI-inspired data and tools possible! Please take 3-5 minutes to fill out this short questionnaire to give us your input on the needs for AI in Climate-Smart Agriculture and Forestry.

Please follow the following link to complete the survey;

Farmer-Questionnaire-

[https://docs.google.com/forms/d/e/1FAIpQLScXR7ihtuNJoEOcx3J7uOx63FVrc3d3OYhwS1tBESuKzyzarA/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLScXR7ihtuNJoEOcx3J7uOx63FVrc3d3OYhwS1tBESuKzyzarA/viewform?usp=sf_link)

Non-Farmer Questionnaire-

<https://forms.gle/arSimfzkfZjRx8RBA>

Non- farmer Questionnaire



Farmer Questionnaire



Thank you very much for providing us with your feedback!

Rose Ogutu (Horticulture Specialist- Delaware State University) on behalf of The AI-CLIMATE Team, [ai-climate@umn.edu](mailto:ai-climate@umn.edu)

## **Announcements**

### **Delaware Grain Marketing Club Meeting**

Wednesday, January 24, 2024 6:00-8:00 p.m.

University of Delaware

Paradee Center

69 Transportation Road, Dover, DE

The Delaware Grain Marketing Club will have its first quarter meeting of 2024 on January 24<sup>th</sup> at the Kent County Extension Office. Topics will include the opportunity cost of grain discounts and using revenue protection in a marketing plan. Dinner will be provided.

*To register, please contact Karen Adams.*

E: [adams@udel.edu](mailto:adams@udel.edu)

**P: 302-831-3328**

Please contact Nate Bruce [nsbruce@udel.edu](mailto:nsbruce@udel.edu) with any questions.

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### **Produce Safety Alliance Training**

Friday, January 26, 2024 8:00 a.m.-4:30 p.m.  
New Castle County Extension Office  
461 Wyoming Road, Newark, DE 19716

Offered by the University of Delaware, Cooperative Extension and the Department of Animal and Food Sciences.

#### **Who should Attend**

Fruit and vegetable growers and others interested in learning about produce safety, the Food Safety Modernization Act (FSMA) Produce Safety Rule, Good Agricultural Practices (GAPs), and co-management of natural resources and food safety. The PSA Grower Training Course is one way to satisfy the FSMA Produce Safety Rule requirement outlined in § 112.22(c) that requires *‘At least one supervisor or responsible party for your farm must have successfully completed food safety training at least equivalent to that received under standardized curriculum recognized as adequate by the Food and Drug Administration.’*

#### **What to expect at the PSA Grower Training Course**

The trainers will spend approximately seven hours of instruction time covering content contained in these seven modules:

- Introduction to Produce Safety
- Worker Health, Hygiene, and Training
- Soil Amendments
- Wildlife, Domesticated Animals, and Land Use
- Agricultural Water (Part I: Production Water; Part II: Postharvest Water)
- Postharvest Handling and Sanitation
- How to Develop a Farm Food Safety Plan

In addition to learning about produce safety best practices, key parts of the FSMA Produce Safety Rule requirements are outlined within each module. There will be time for questions and discussion, so participants should come prepared to share their experiences and produce safety questions.

#### **Benefits of Attending the Course**

The course will provide a foundation of Good Agricultural Practices (GAPs) and co-management information, FSMA Produce Safety Rule requirements, and details on how to develop a farm food safety plan. Individuals who participate in this course are expected to gain a basic understanding of:

- Microorganisms relevant to produce safety and where they may be found on the farm
- How to identify microbial risks, practices that reduce risks, and how to begin implementing produce safety practices on the farm
- Parts of a farm food safety plan and how to begin writing one
- Requirements in the FSMA Produce Safety Rule and how to meet them.

After attending the entire course, participants will be eligible to receive a certificate from the Association of Food and Drug Officials (AFDO) that verifies they have completed the training course. To receive an AFDO certificate, a participant must be present for the entire training and submit the appropriate paperwork to their trainer at the end of the course.

For additional information, or to register contact Jennifer Jones at 302-856-7303 or email at [jbjones@udel.edu](mailto:jbjones@udel.edu)

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### **Hiring and Retaining Farm Employees – What you Need to Know and Do Workshop**

#### **A Labor Workshop Planned for Agricultural Employers**

Tuesday, January 30, 2024 9:00 a.m. -3:00 p.m.  
University of Delaware  
Carvel Research and Education Center  
16483 County Seat Highway, Georgetown, DE

Do you have a hard time keeping good employees? Do you know what laws and rules you need to follow to reduce your liability? Did you know that employees want and expect benefits? This workshop will provide you with information and resources to help you think through your options as farm operation who wants to hire and retain great employees.

This program will cover developing an employee handbook for your operation, basic legal requirements, and how to incorporate benefits that agricultural

employers deal with. The funding for this program, including the complimentary lunch, is thanks to the Northeast Risk Management Education Center.

The speakers include Nate Bruce, Farm Business Management Specialist, and Maria Pippidis, Financial Wellbeing Agent, with the University of Delaware Cooperative Extension, and Paul Goeringer, an Extension Specialist in agricultural law, and Dr. Jesse Ketterman, a Senior Agent, with the University of Maryland Extension. Bruce will address tax issues associated with benefits. Goeringer will address the employee handbook and common legal issues. Pippidis and Dr. Ketterman will discuss incorporating health, retirement and other benefits.

Lunch is provided.

**To register, please use weblink below:**

[https://docs.google.com/forms/d/e/1FAIpQLSfrxxV5\\_3ym0YBBZzSUnchPzV4iY2EK0nnM4VZgSJ9BWF7Z\\_w/viewform](https://docs.google.com/forms/d/e/1FAIpQLSfrxxV5_3ym0YBBZzSUnchPzV4iY2EK0nnM4VZgSJ9BWF7Z_w/viewform)

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### **Exploring Agricultural Enterprise Development**

Thursday, February 15, 2024 6:00-8:00 p.m.  
Thursday, February 22, 2024 6:00-8:00 p.m.

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

University of Delaware Cooperative Extension, the Chesapeake Agriculture Innovation Center, and Delaware Department of Agriculture will be hosting a two-week program geared towards producers considering starting a new enterprise on their farm operation. The program will cover market research, business finances, market positioning, and signs when it is time to make business changes.

**To register, please contact Karen Adams.**

**E:** [adams@udel.edu](mailto:adams@udel.edu)

**P:** 302-831-3328

Please contact Nate Bruce [nsbruce@udel.edu](mailto:nsbruce@udel.edu) with any questions.

### **2024 Delaware Risk Management Conference**

Monday, March 4, 2024 8:00 a.m.-4:00 p.m.  
Harrington Fire Hall  
20 Clark Street, Harrington, DE 19952

University of Delaware Cooperative Extension and Delaware Farm Bureau's 2024 Risk Management Conference will held be on March 4<sup>th</sup> from 8:00 am to 4:00 PM at the Harrington Fire Hall. Lunch will be provided. Topics will include:

- 2024 Commodity Crop Enterprise Budgets
- USDA Farm Services Agency Update
- USDA Risk Management Agency Update
- Fertilizer Market Update
- Grain Market Update
- Dryland Yield Modelling for Crop Insurance
- Delaware Solar Farm Development Update

**To register, please use online weblink below:**

<https://defb.org/risk-management-conference/>

**If you have any additional questions about registration, please contact Mikayla Paul.**

**E:** [mikayla.paul@defb.org](mailto:mikayla.paul@defb.org)

**P:** 302-697-3183

Please contact Nate Bruce [nsbruce@udel.edu](mailto:nsbruce@udel.edu) with any questions about the conference.

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**Weekly Crop Update is compiled and edited by Emmalea Ernest, Extension Fruit & Vegetable Specialist and Drew Harris - Kent Co. Ag Agent**

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