Vol. 4 · May 2023



Accomack & Northampton County Cooperative Extension Eastern Shore Agricultural Research & Extension Center

Protect your wheat during flower when wet weather is in the forecast!

Dr. Doug Higgins, Plant Pathologist, Eastern Shore AREC

As I write this article, a string of dry weather through mid-April is just being broken by some much needed rain. Dry weather translates into low Fusarium head blight risk. However, conditions can change rapidly. With wet weather there is a higher risk of disease. To get the most up-to-date disease forecasts for the Eastern Shore refer to the FHB Prediction Center and Risk Assessment Tool (<u>https://scabusa.org/tool</u>s).

Wheat heads are susceptible to Fusarium infection during flowering. Some varieties of wheat are less susceptible to Fusarium head blight than others. Fusarium head blight resistance ratings for Virginia wheat varieties can be found here: <u>https://www.pubs.ext.vt.edu/content/pubs_ext_vt_edu/en/SPES/spes-</u>420/spes-420.html.



If you look closely, you can see the yellow anthers of the wheat flower. Apply your fungicide when around half of the wheat heads in your field are just starting to flower (Feekes 10.5.1) as seen here.

A well-timed fungicide application when Fusarium head blight risk is medium to high can help reduce disease and lower mycotoxin levels, especially in susceptible wheat varieties. The fungicide should be applied at early wheat flowering (Feekes 10.5.1; see image). If the fungicide cannot go on exactly at early flowering, it is still worthwhile to apply the fungicide up to several days later. Do not use fungicides that contain Qols (strobilurin; FRAC 11) after the flag leaf stage, they can increase mycotoxin (deoxynivalenol) levels. In national fungicide trials, Camabra, Proline, Miravis Ace, Sphaerex and Prosaro Pro are the most effective fungicides in reducing Fusarium head blight.



Just emerged potatoes in Northampton County

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THE AGENT'S CORNER

Ursula Deitch - Northampton County ANR Agent Theresa Pittman - Accomack County ANR Agent





Farm Use Tags New Legislation Meeting

State Delegate Robert Bloxom met with growers from Northampton and Accomack Counties on the morning of April 4th at the Eastern Shore AREC to discuss the new regulations related to Farm Use Tags on Farm Vehicles. During the meeting, Delegate Bloxom provided a <u>handout</u> created by Virginia Farm Bureau outlining the new laws that will be enacted on July 1, 2024.



Delegate Bloxom championed this bill during session trying to help members of the general assembly understand what farm vehicles should be included in this permanent farm use tag regulation and which should be exempt. Thank you Delegate Bloxom for taking your time to talk to Eastern Shore farmers about this issue. Please see the <u>handout</u> on pages 9 & 10 for more information on this law.



In-service attendees at the Keystone Tractor Museum on April 13th

Metompkin Elementary Career Day

Accomack County VCE was invited to participate in the Metompkin Elementary Career Day on April 19, 2023. Theresa Pittman spoke to 500+ students in grades Pre-K through 5th grade about the farming industry, what farmers do day-to-day and how to become a farmer in the future.

Garden Tour of the Eastern Shore

The Northampton ANR Agent participated in the Historical Garden Tour on Saturday, April 22, 2023 put on by the Eastern Shore of Virginia Garden Club. Stationed at the local historical home, Wharton Place, she spoke to over 742 attendees about the gardens, landscaping plants, and the crops grown in surrounding agricultural fields.



Farm use tags legislative meeting on April 4th with Delegate Rob Bloxom

Commercial Vegetable Training

Faculty members from the Eastern Shore AREC hosted a twoday Commercial Vegetable Crop In-Service for Agricultural Extension Agents at VSU's Randolph Farm on April 13th & 14th. Approximately 25 VCE Agent attendees from throughout the state, including the Northampton ANR Agent, learned about topics including Protected Ag & Hydroponic Systems, Nutrient Management in Vegetables, Disease and Weed Management in Vegetables, and a section on "Know Your Pest". The highlight of the event was the wonderful dinner on the evening of April 13th at the Keystone Tractor Museum. It was a great networking event and it was neat to see the old tractors!



ANR Agent Theresa Pittman talks to students on career day on April 19th

UPDATES FROM THE ESAREC DIRECTOR

Dr. Mark Reiter, Director, Extension Specialist



VIRGINIA AGRICULTURAL EXPERIMENT STATION EASTERN SHORE AGRICULTURAL RESEARCH AND EXTENSION CENTER VIRGINIA TECH...



Run In Remembrance

On April 17, 2023, faculty, staff, and students at the Eastern Shore AREC paused to celebrate the life of 32 students and faculty who were tragically taken from our campus community in 2007. We held vigil and then completed our Eastern Shore AREC version of the Run In Remembrance by circling our research farm, checking on crops, and enjoying camaraderie amongst our current employees. This journey of research and Extension surrounding our Eastern Shore crops is exciting and fast paced, so remember to enjoy those around you as we circle the sun.



VT Run In Remembrance on April 17th at Eastern Shore AREC



Welcome Calyn Adams!

Calyn is the station's newest Research Specialist, Sr. in Plant Pathology. She is a Virginia native who completed both her B.S. in Agriculture Science (2019) and M.S. in Agronomy (2023) at Mississippi State University. She played colligate softball at MSU and is an avid duck hunter. Gray leaf spot is her favorite plant disease! We are excited to have Calyn at the Station and welcome her to the Eastern Shore.

International Soil Tillage Research Organization (ISTRO) coming to Virginia

Dr. Mark Reiter, President of the International Soil and Tillage Research Organization (ISTRO) since 2018, will be hosting the 22nd International Conference in Virginia Beach in September 2024. The goal of ISTRO is to promote contacts among scientists undertaking research in soil tillage and field traffic and their relationship with the soil environment, land use and crop production, to stimulate scientific research in the domain of soil tillage and related fields, and to further the application of the results of such research into agricultural practice. The ISTRO board, comprised of 11 individuals from 10 countries, will meet in April to finalize the conference that will take place from September 23 to 28, 2024 at the Wyndham Virginia Beach Oceanfront Hotel and Conference Center. For additional information, refer to the <u>ISTRO Conference link</u> on the ESAREC page.



RESEARCH FROM ESAREC FACULTY & STAFF



VIRGINIA AGRICULTURAL EXPERIMENT STATION EASTERN SHORE AGRICULTURAL RESEARCH AND EXTENSION CENTER VIRGINIA TECH...

USDA-Natural Resources Conservation Services Conservation Innovation Grant

On April 6, 2023, Secretary of Agriculture, Tom Vilsack, announced that a grant application submitted by the Eastern Shore Agricultural Research and Extension Center would be funded. The project will focus on the Integration of Climate Smart Technologies for Sustainable Crop Systems with a budget of \$999,277. This 3-year project is led by project investigator Dr. Mark Reiter with co-investigators Drs. Emmanuel Torres Quezada, Vijay Singh, Doug Higgins, and Ms. Hélène Doughty. This project is part of USDA's \$15 million investment this year for the Conservation Innovation Grants (CIG) Classic program. Through CIG, grantees work to address our nation's water quality, water quantity, air quality, soil health and wildlife habitat challenges, all while supporting agricultural production. This year's funding priorities are climate-smart agriculture, addressing invasive species and conservation in urban agricultural systems.

The Eastern Shore AREC's project will demonstrate the integration of cover crops and precision tillage as climate-smart technologies to increase resiliency to short-term droughts, improve soil health parameters, and reduce atmospheric carbon concentrations by decreasing emissions and increasing sequestration. In-field data layers (soil mapping, moisture, compaction) will be coupled with soil health parameters, disease/insect/weed surveys, and cash crop yield to quantify different management systems. Cover crop biomass data will be coupled with real-time CO2 data and tillage data to quantify carbon savings and sequestration due to introduced smart farming practices. We are excited to implement some of our new technologies recently installed at the Eastern Shore AREC that includes smart tractors that will allow precision tillage and a real time kinematic (RTK) tower that will allow precision location services to ensure optimal data collections and datasets for research and Extension programing. Tune in to learn more over the next few years as we work on this project!



Italian Ryegrass

Do you see lot of weed escapes in wheat this year? Are you not getting desired control of Italian ryegrass even after using best herbicides options?

If you are not sure about the status of herbicide resistance, please collect Italian ryegrass seeds from few plants when they mature and send to weed science group at Eastern Shore AREC, 33446 Research Dr, Painter, VA, 23420

You may email Dr. Vijay Singh (<u>v.singh@vt.edu</u>) for more questions and sending location of herbicide-resistant weeds, and our team will help you in sample collection during summers. Once herbicide-resistance is determined, we will provide alternate management options.

RESEARCH FROM ESAREC FACULTY & STAFF



VIRGINIA AGRICULTURAL EXPERIMENT STATION EASTERN SHORE AGRICULTURAL RESEARCH AND EXTENSION CENTER VIRGINIA TECH.

Bojac Sandy Loam

The Eastern Shore of Virginia boasts some productive and fertile soils for agricultural production. One of the most prominent soils on the Eastern Shore is Bojac sandy loam (pictured, right).

Horizons:

Ap - A horizons (topsoil) are typically the most fertile soil horizon. They are usually darker than other horizons due to higher amounts of organic matter. The first inset image shows the separation of the A horizon from a hardpan. Hardpans form at the plow depth and can limit root growth.

Bt – Bojac sandy loam features several B horizons. B horizons are subsoil profiles. In this case, they have an increase in clay, and the orange color is a demonstration of the oxidized iron attached to clay particles.

C - C horizons are the original parent material of the soil. In this horizon, we see the light colored sand present at the bottom of the column and in the bottom right inset picture. This is coastal plain sand.

Parent Materials - Sometimes, soil profiles can have multiple parent materials. The profile pictured here has evidence of two parent materials! The remaining inset pictures to the right are showing smooth quartz pebbles distributed throughout the soil profile above the C horizon. Some are even oriented vertically, meaning they were probably deposited very quickly with other sediments. This is evidence of alluvial or fluvial deposits (by water).



Alluvium and fluvium are created by the action of streams and rivers depositing and moving sediments.

With this information we know that the site's history was a former stream terrace that experienced periods of flooding, or was within the course of a stream or river. This left behind the fertile soils that Eastern Shore communities have used for centuries!

- Thomas "Beau" Badon, Graduate Research Assistant, Soils and Nutrient Management

4-H NEWS & UPDATES

Erin Morgan - Northampton County 4-H Agent



Northampton 4-H Engaging Students through Embryology



Embryology is the hatching of chicks in the classroom, providing students with a hands-on learning of life cycles. This project targets second grade as it fits perfectly with Virginia Standard of Learning (SOL) 2.4 and 2.5, the study of life systems.



This year, Cape Charles Christian, Occohannock, and Kiptopeke elementary are participating by incubating chicken eggs, Broadwater Academy is participating by incubating duck eggs, and Shore Christian with duck and turkey eggs.

Candling a chicken egg

It takes 21 days to incubate a chicken egg and 28 days for duck and turkey eggs. During that time the eggs are left in an incubator for the students to observe at a distance. Erin visits the classrooms at least once during the project to candle the eggs, a process that uses a light to see into the eggs, to determine if the egg is viable.

Each year, this program reaches approximately 150 students attending school in Northampton County.



See <u>flyer</u> on page 11 for details!



WHAT'S THAT BUG?

s a

Hélène Doughty, Research Specialist Sr., invites you to test your entomology knowledge. Take a guess on the pest and email her your answer! <u>hdoughty@vt.edu</u>

April's Answer: Carabid beetle larva. These larvae live in the soil until they pupate to later emerge as adult ground beetles. Ground beetles/Carabid beetles are beneficial insects as predators of other insects. They can often be confused with wireworms in their larval stage due to their appearance and color. However, wireworms lack certain characteristics that the ground beetle larvae have such as curved mandibles and a pair of long structures sticking out from the abdomen.



VIRGINIA TECH.

2023 Summer Internships and Part-Time Employment The Eastern Shore Agricultural Research and Extension Center (AREC) located in Painter, VA is searching for summer interns and hourly workers. We encourage senior high school and college students and others that may be interested in learning more about Eastern Shore agricultural production to apply. Workers and interns will work directly with scientists and current graduate students on plant pathology and entomology projects that have direct financial and environmental impacts for our Eastern Shore agricultural community. By the end of the summer, hourly workers, students, and interns will have first-hand experiential knowledge of many scientific components that will propel them in the workforce.

Interested applicants should submit a resume to esarec@vt.edu

Virginia Tech is an equal opportunity and affirmative action employer.

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VIRGINIA AGRICULTURAL EXPERIMENT STATION EASTERN SHORE AGRICULTURAL RESEARCH AND EXTENSION CENTER

Careers at Virginia Tech - Research Specialist, Sr. (Job no. 521473); work type: Staff

Come work with us at the Eastern Shore AREC, Virginia Tech in Painter, VA! We are looking for someone with dedication to the agricultural profession to help our weed science team combat pressing issues related to herbicide resistant weeds, new herbicides, UAVs, and precision agriculture. A B.S. in a weed science related discipline is desired, but not required (agronomy, horticulture, etc.). Operation of farm equipment is also desired. Candidates with a high school education with significant practical field experience will also be considered. Shortlisting of candidates will start after April 15, 2023 and continue until the position is filled. For questions, call Vijay Singh at 479-713-0094 or email vijaysingh@vt.edu Interested candidates, please visit this link and apply online.



SAVE THE DATE - May 19, 2023

2023 Eastern Shore Sheep Shearing Program

For more information, Contact the Accomack County Extension Office - 757.787.1361 or tpittman@vt.edu

SAVE THE DATE 2023 Eastern Shore Household Water Quality Clinic

August 28, 2023

Hosted by: Accomack & Northampton County Cooperative Extension Offices

CLARIFYING THE UNLICENSED FARM USE VEHICLE PROGRAM

What did the General Assembly approve in 2023?

The new legislation clarifies and makes improvements to the unlicensed farm use vehicle program administered through the Department of Motor Vehicles (DMV). These changes work to clearly define the program, how the exemption can be used, protects personal information and delays the enforcement of the program to July 1, 2024.



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The final plate design will begin with the letters "FV" followed by numbers.

Farm Use Placard Requirements

- Continues the longstanding requirement for a title on any pickup truck, panel truck, and sport utility vehicle obtaining a farm use placard, if a title is needed, there is a separate \$15 titling fee; however, no sales and use tax would be imposed as long as the vehicle claims the exemption
- The farm use placard is required for pickup trucks, panel trucks and SUVs. The placard costs \$15 and is good for the life of vehicle, but is not transferrable

- Limits the information needed for the application:
 - 1. Name of owner or lessee of the vehicle
 - 2. Approximate farm location and acreage where the vehicle is used
 - 3. The type of agricultural commodities produced on the farm
 - Statement signed by the owner or lessee that the vehicle will only be used for the purposes allowed under the farm use exemption
 - 5. Statement signed by the owner or lessee that the vehicle is an insured motor vehicle

CLARIFYING THE UNLICENSED FARM USE VEHICLE PROGRAM

What specific changes were made?

- 1. Clarifies what vehicles are allowed to claim the farm use exemption:
 - a. Pickup and panel trucks
 - b. SUVs
 - c. Trailers and semitrailers

d. Vehicles other than pickup or panel trucks, SUVs, trailers or semitrailers having a gross weight rating greater than 7,500 pounds

2. The only vehicles that are required to obtain the permanent farm use placard from the DMV are pickup trucks, panel trucks and SUVs

a. Trailers and emitrailers and vehicles over 7,500 pounds are NOT required to obtain the placard, but still qualify for the farm use exemption

- 3. Prohibits the DMV from sharing personal, proprietary information from the placard application with anyone
- 4. Clarifies that the vehicle obtaining the farm use placard is exempt from paying sales and use tax

a. However, sales and use tax will be imposed upon the current market value of the vehicle at the time that the vehicle is registered for a nonexempt use or sold to a person who does not qualify for the farm use exemption

5. Allows farmers or employees operating a farm use vehicle to:

a. Stop for a meal

b. Dispose of incidental trash from the farmer's or employee's home along with trash generated on the farm

- 6. Using either the permanent placard from the DMV or your current farm use marker, you can travel up to 75 miles or to a storage house, packing plant, market or between your tracts of land.
- Delays the enforcement date to July 1, 2024, to allow for successful implementation

For more information, contact:

Zach Jacobs Legislative Specialist, Governmental Relations Virginia Farm Bureau Federation® (o) 804-290-1220 (c) 804-205-8740 (e) zach.jacobs@vafb.com

Suffolk/Greensville/Emporia/Accomack/Northampton
AIRFIELD 4–H CENTER

WAKEFIELD, VA

For all youth, ages 9-13 (as of September 30, 2023)

\$400

- Registration form and \$150 deposit due by June 1
- Final payment due by July 1
- Scholarships may be available

For registration form and more info: https://northampton.ext.vt.edu/

> Erin Morgan, 4-H Agent Northampton County emorgan2@vt.edu 757-678-7946 x15

If you are a person with a disability and desire any assistive devices, services or other accommodations to participate in this activity, please contact Erin Morgan in the Northampton office at 757-678-7946 during business hours of 8:00 a.m. and 4:30 p.m. to discuss accommodations 5 days prior to the event. *TDD number is (800) 828-1120.

www.ext.vt.edu.

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Virginia Cooperative Extension





VIRGINIA AGRICULTURAL EXPERIMENT STATION EASTERN SHORE AGRICULTURAL RESEARCH AND EXTENSION CENTER VIRGINIA TECH

Virginia Cooperative Extension brings the resources of Virginia's land-grant universities, Virginia Tech and Virginia State University, to the people of the commonwealth. VCE provides education through programs in Agriculture and Natural Resources, Family and Consumer Sciences, 4-H Youth Development and Community Viability.

The Virginia Tech, Eastern Shore AREC is committed to supporting commercial vegetable, grain, oilseed, and fiber production throughout the Commonwealth of Virginia. Centrally located on Virginia's Eastern Shore, the center conducts basic and applied research on more than 25 agricultural crops.

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