

# Early Season Planning for Weed Control in Corn

Vijay Singh, Assistant Professor and Extension Weed Specialist

We are fast approaching planting season and now it's time to think ahead and plan for weed management options. We need to consider both weather challenges and herbicide resistance issues while making decisions for crop traits and herbicide programs. Herbicide availability can also be a constraint which may narrow down our options. Here are few suggestions which may help you in making a robust herbicide program for corn.

#### START CLEAN

Start clean using a combination of tillage or burndown herbicides. It may also include effective termination of cover crops, and dealing with volunteer corn plants, depending on your time of planting. For volunteer corn, Liberty, Select, or Gramoxone (paraquat) are good options. However, Liberty will not control Liberty Link hybrids. If you had Roundup Ready and Liberty Link hybrids in previous years alternatively, and not sure of the traits of volunteer corn, then Gramoxone and Select herbicides are the best choices. While using Select or clethodim products, wait for a minimum of 6 days (6 days at 6 oz/A and 30 days at higher rates) from time of application until planting corn due to risk of crop injury. Since Gramoxone is a fast-acting herbicide, mixing it with atrazine or metribuzin may help in slowing down the activity to improve control.

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## THE AGENT'S CORNER

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





#### **Paraquat/Gramoxone Training:**

An in-person Paraquat/Gramoxone Training was held at the Eastern Shore AREC on the morning of March 23rd. Thirty-five attendees of the course received certification from the National Pesticide Safety Education Center (NPSEC) for 3 additional years of using the product known as Gramoxone — active ingredient Paraquat dicholoride.

#### Farm Use Tags Meeting with Delegate Bloxom: \*\*Advertisement on page 4\*\*

Delegate Rob Bloxom will be on hand the morning of April 5th at 10:30am to discuss the new Farm Use Tag regulations bill that will take effect on July 1, 2024. Delegate Bloxom will address questions regarding this bill and how it affects your farm. Please see the attached flyer for more details. If you plan to attend RSVP to your county ANR Agent.



Pesticide container recycling occurred on March 13th - 14th on the Eastern Shore. VDACS has a new recycling contractor who is very specific regarding the cleanliness of the pesticide jugs. As a reminder all pesticide containers need to be triple rinsed, and all caps and labels removed before recycling them.





Private Pesticide Training at the Eastern Shore AREC on March 20th. Thirteen attendees received training and tested for the private pesticide applicator certification

Due to the excess amount of rejected containers at the Northampton Landfill, the drop-off storage container will be locked and people recycling will need to either contact Ursula Deitch, 757-678-7946 ext. 25 to schedule an appointment to drop off or go to the sign-in house and ask to have landfill supervisor, Ronald Rowe, come to inspect the containers prior to recycling them. We apologize for this inconvenience, however half of the jugs in the recycling container were rejected.

# SAVE THE DATE

# 2023 Eastern Shore Household Water Quality Clinic

August 28, 2023

Hosted by: Accomack & Northampton County Cooperative Extension Offices

### **UPDATES**

#### FROM THE ESAREC DIRECTOR

Dr. Mark Reiter, Director, Extension Specialist



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



#### **GPS Tower Installed at ESAREC**

Our John Deere real-time kinematic (RTK) global positioning system (GPS) tower is now installed and online. Look for more details on that in the future as our applied research programs incorporate additional precision ag technologies to advance agricultural production here on the Eastern Shore! We are working on details for future uses as RTK GPS technologies become more integrated into our agricultural systems.



#### **ESAREC Hosts Area Envirothon**

On March 1, the Eastern Shore AREC hosted the Area 6 Envirothon training being sponsored by the Eastern Shore Soil and Water Conservation District. Students from southeast Virginia, grades 6th through 12th, had stations where they learned hands-on from experts in the disciplines of soils, forestry, water quality, and wildlife. Students will compete later this month to test their knowledge and decide who moves on to the state competition! Let us know if you want to stop by and see the soil pit yourself...





ESAREC Faculty & Staff participated in O'Nancock's St. Patrick's Day Parade on March 18, 2023

# FARM USE TAGS

# **New State Regulation**



Join Delegate Rob Bloxom to discuss the new Farm Use vehicle tags bill and its implementation



AT 10:30 AM

Eastern Shore AREC 33446 Research Dr. Painter, VA 23420

Please RSVP with your local County Agent
Ursula Deitch, Northampton ANR Agent
ursula@vt.edu
(757) 678-7946 ext. 25

Theresa Pittman, Accomack ANR Agent tpittman@vt.edu (757) 787-1361 ext. 14

If you are a person with a disability and desire any assistive devices, services or other accommodations to participate in any activity, please contact Ursula Deitch at 757-678-7946\* (\*TDD number is (800) 828-1120) during business hours of 8:00 a.m. and 4:30 p.m. to discuss accommodations.



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# Disease Forecasting for Eastern Shore Potatoes — Late Blight and Early Blight

Dr. Doug Higgins, Plant Pathologist, Eastern Shore AREC

Late blight (*Phytophthora infestans*) and early blight (*Alternaria solani*) are two important airborne foliar diseases affecting potatoes on the Eastern Shore. Late blight is favored by moderate



temperatures and high relative humidity. Potato plants are especially susceptible to early blight during tuber formation when warm and humid conditions persist. Hourly temperature and relative humidity data can be used to predict when late blight and early blight outbreaks are most likely to occur.

The weather information needed to predict disease outbreaks can be collected without an in-field sensor reducing monitoring costs compared to in-field weather stations. For instance, DTN Agronomy (DTN, Burnsville, MN) is a commercial, subscription-based product. The product utilizes regional weather stations, mathematical models, and computer algorithms to generate weather data on the scale 1-km² (a little over a third of an acre) grid, without in-field sensors. However, conditions are expected to vary especially in potatoes grown under irrigation where wet, humid conditions can occur when the surrounding fields are dry. So How accurate is the weather data collected without an in-field sensor?

Weather stations with in-field sensors (see pictures) are being installed under irrigation systems in potato



fields in Cape Charles, Machipongo, Painter and Horntown. These stations will be compared to a remote sensing weather service to determine the best option for collecting the data needed to predict late blight and early blight disease outbreaks.

Disease forecasting values will be posted to Virginia AG Pest Advisory and distributed through an email server list (Accomack/Northampton County Extension) to potato growers throughout the season.

Subscribe to the Virginia AG Pest Advisory - HERE

#### Continued from Page 1

BURNDOWN AND COVER CROP TERMINATION OPTIONS
For the control of common weeds or terminating cover crops in

the spring before corn establishment, tankmix applications or combination of at least two herbicides should be considered instead of relying on glyphosate alone, especially for brassica species (mustards) and hairy vetch. For grassy weeds and cover crops, glyphosate is the best choice. But glyphosate alone is insufficient for many broadleaf weeds and cover crops, such as hairy vetch and mustards. For these situations, consider combining



2,4-D ester or dicamba with glyphosate. Liberty can also be used in this scenario. However, use Liberty only when temperatures are above 72° F with good sunlight. Gramoxone is a good option for fields that have either very small grassy weeds or only broadleaves. Tankmix 2,4-D with Gramoxone for improved control. Glyphosate + Sharpen is another good option for broadleaved weed control. For grass weeds and cover crops, such as, cereal rye and wheat, addition of Select with glyphosate will help in better control. If using 2,4-D or dicamba in combination, apply 7-14 days before planting of corn. Similarly, in case of Sharpen, maintain a 14 days window until planting.

#### STAY CLEAN: PREEMERGENCE OPTIONS

All Dual products, and other premixes with group 15 herbicides, are effective on sedges (yellow and purple nutsedge). Since we have triazine-resistant weeds widespread in Virginia, products without triazines (group 5) or a combination of two or three herbicides (example, Fierce, Acuron, Maverick) will be a better option. Use 20 GPA spray volume for better coverage.

#### POSTEMERGENCE OPTIONS

There are many POST options to control weeds in corn, however, consider using premix products or tankmixes with two or more group of herbicides. Avoid using group 2 or group 9 (glyphosate) alone as many weeds in Virginia have evolved resistance to these group of herbicides. Harmony SG (group 2 herbicide) can be used in a tankmix to control velvetleaf, pigweed, smartweed, wild mustard, and lambsquarters (including triazine-resistant species). Similarly, Permit (group 2) herbicide can be tankmixed to provide excellent control of yellow nutsedge. Use Enlist Duo only with Enlist corn. For rates, adjuvants, and other restrictions, please follow label guidelines.

| PRE herbicides     | Group   | Effective on<br>broadleaved or<br>grass weed |  |
|--------------------|---------|--|--|
| Atrazine           | 5       | Broadleaved                                  |  |
| Dual II magnum     | 15      | Grasses                                      |  |
| Bicep, cinch ATZ   | 5/15    | Both   |  |
| Fierce             | 14/15   | Both   |  |
| Virdict            | 14/15   | Both   |  |
| Acuron             | 5/15/27 | Both   |  |
| Maverick/ Resicore | 4/15/27 | Both   |  |

| POST herbicides        | Group   | Effective on<br>broadleaved or<br>grass weed |
|------------------------|---------|--|
| Accent Q               | 2       | Grasses & few<br>broadleaved                 |
| Aim                    | 14      | Broadleaved                                  |
| Glyphosate             | 9       | Both   |
| Liberty                | 10      | Both   |
| Enlist Duo             | 4/9     | Both   |
| Sinate                 | 10/27   | Both   |
| Halex GT/ Acuron<br>GT | 9/15/27 | Both   |

FOR MORE DETAIL, PLEASE REFER TO PEST MANAGEMENT GUIDE

## **4-H NEWS & UPDATES**

Erin Morgan - Northampton County 4-H Agent





# Eastern Shore Shooting Education Club Participates in the Spring Air Championship

Eastern Shore Shooting Education Club participated in the Spring Air Championship hosted by Virginia 4-H Shooting Sports. Seven shooting education clubs throughout the state of Virginia competed in the two-day competition held at W. E. Skelton 4-H Center located in Wirtz, VA. Teams competed in archery, air pistol, air rifle, BB gun, presentation, and public speaking. The Eastern Shore Shooting Education Club, whose motto is "Learn by Doing," had seven students ranging in age from 8-18 participate in the



weekend's activities. Olivia Rinaldo took first place in the public speaking event. Sophia Lopez won third place overall in the Senior Genesis Archery division. Olivia Sams, Joshua Maynard, and Olivia Maynard placed third in Junior Team Genesis Archery. Connor Maynard was awarded a gold ribbon, and Julia Rinaldo received a silver ribbon in Junior Compound Archery. Olivia Rinaldo won a silver ribbon in Senior Compound Archery. Olivia Sams took home a silver ribbon, and Joshua Maynard received a bronze ribbon in Junior Genesis Archery. Olivia Sams also won a bronze ribbon in Junior Air Rifle Silhouette.



Kids from up and down the Eastern Shore comprise this club and desire to learn how to safely and effectively handle firearms, grow in their leadership development, and serve their community, through community service projects, to further themselves as self-directing, contributing, and productive members of society. For more information or to join the Eastern Shore Shooting Sports Club, please contact Erin Morgan with Northhampton 4-H at esill@vt.edu or (757) 678-7946, ext. 15.



### **4-H Embryology**

Northampton 4-H is Eggs-pecting!

EGGS ARRIVING AT: BROADWATER ACADEMY (DUCKS), CAPE CHARLES CHRISTIAN, KIPTOPEKE AND OCCOHANNOCK ELEMENTARY SCHOOLS, AND SHORE CHRISTIAN (DUCKS)

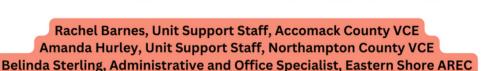
**Baby Chicks and Ducks hatching in April and May** 



TO JULIE HEAD AND TRIPLE S FARMS FOR PROVIDING THE EGGS FOR THIS 4-H PROJECT



# Happy ADMINISTRATIVE PROFESSIONALS Way!





April 26, 2023 is a day to recognize and celebrate the amazing work that VCE's administrative professionals do every day. We are so grateful to have so many talented and dedicated administrative professionals on our team. Thank you for all your hard work, dedication, and commitment to excellence. We couldn't do it without you!





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.

# What's That Bug??

Hélène Doughty, Research Specialist Sr., invites you to test your entomology knowledge. Take a guess on the pest and email her your answer!

Email: <a href="mailto:hdoughty@vt.edu">hdoughty@vt.edu</a>



VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

### Meet the New VDACS Pesticide Investigator

Hello I'm Christine Haslam... I am very happy to be the new pesticide investigator for the Eastern Shore/Virginia Beach/Norfolk territory. My background in the industry began later in life, attending college in my 40's, graduating from West Virginia University with a degree in plant and soil science in 2018. After school, I spent 4 years mapping and treating noxious plant species all over Colorado before returning to Virginia to be closer to my family. I am a commerical applicator carrying agriculture, right-of-way, and aquatic categories. Currently, I live in Williamsburg with my boyfriend and 2 dogs. I love the outdoors and all things green...excited to meet and work with everyone!!



The Farm Bureau Young Farmers celebrated National Agriculture Week, March 21st - 27th, 2023, by recording Eastern Shore Ag Facts to be played all week on WESR radio. Special thanks to 103.3 WESR and to recorders Kyle Sturgis, Logan Holland, Ursula Deitch, Jarrett Sturgis, Sands Gayle, Colin Hopper, Claire Holland and Sawyer Johnson. See pg 6 for more info

### Eastern Shore Master Gardeners Celebrate National Agriculture Week

The Eastern Shore Chapter of the VCE Master Gardeners also celebrated National Agriculture Week with a positive message during their weekly radio spot. The ESMG recording can be heard on WESR each weekday at approximately 12:30 pm. We greatly appreciate the staff at WESR for the opportunity to educate our community on environmental horticulture subjects as well as Eastern Shore agriculture. Below is the radio script played from March 20th - 24th, 2023

Hi, this is Theresa Pittman, Accomack County Agricultural Extension Agent and an Eastern Shore farmer's daughter, bringing you information on Shore-friendly living and gardening from the Eastern Shore Master Gardeners and Virginia Cooperative Extension.

Tuesday, March 21st is National Agriculture Day and this week is National Agriculture Week. I'm honored to tell you about National Agriculture Day. American agriculture is the foundation of our country. It's the backbone of a healthy and prosperous nation, made possible by the hard work of America's farms and farm families who lead the way in preservation and innovation for the health of our planet.

Every week and more especially this week, there is a nationwide effort to tell the true story of American agriculture and remind citizens that agriculture is a part of all of us. Many agricultural associations, corporations, students and government organizations involved in agriculture are participating in the educational effort.

Our goal is to encourage Americans while educating them on how food and fiber products are produced. All this week you will hear members of the Eastern Shore Farm Bureau Young Farmers on the radio who have recorded some agricultural facts. We hope that these statistics about local farmers and waterman will show how much the agriculture industry impacts our Eastern Shore Community.

The Agriculture industry is essential not only to our community but to our nation. It is critical to acknowledge and consider that the strength of our local agriculture industry contributes to a strong Eastern Shore economy. The farmer's efforts in growing and tending to crops and livestock, plays a particularly important role in the safe, abundant and affordable products we consume.

While National Agriculture Day allows us to recognize and celebrate the pivotal role of the Eastern Shore agriculture industry, I encourage everyone to join me in being an AGvocate every day! Let's all do our part to share and support the amazing story of Eastern Shore agriculture. (https://www.agday.org/)

For more information on Eastern Shore agriculture, or for answers to other questions, contact your local Accomack or Northampton County Extension Office. Here on the Shore call 678-7946 or 787-1361





# Eastern Shore Ag Facts 2023

- 1) Consider this: just about everything we eat, wear and use comes from American agriculture. Agriculture & Forestry is Virginia's #1 industry and contributes 91 billion dollars annually in sales and provides 442 thousand jobs in the Commonwealth.
- 2) Individual farmers provide food for 6 times as many people as they did in the 1960s.
- 3) We rely on agriculture for the very necessities of life. From beef and pork to cotton and corn, agriculture is working harder than ever to meet the needs of Americans and others around the world. Our industry is dedicated to providing plentiful and safe food and fiber for consumption.
- 4) 90% of Virginia farms are owned by families or individuals, not corporations.
- 5) According to the most recent U.S. Agricultural Census, Northampton & Accomack produced over 259 million dollars in total crop sales.
- 6) Clams and oysters are considered livestock by the US Department of Agriculture. The total livestock sales for Accomack County is 116 million dollars and 28 million dollars in Northampton County.



- 7) Accomack County is ranked as the 3rd largest agricultural producing county based on farm receipts. Northampton County is ranked as the 7th largest agricultural county in Virginia based on farm receipts.
- 8) Agriculture & Forestry is Virginias #1 industry. Every job in Agriculture and Forestry supports 1.7 jobs in other parts of Virginia's economy.
- 9) New technology means farmers are more environmentally friendly than ever before. Eastern Shore growers utilize nutrient management plans for over 65,000 acres of crops and plant over 50,000 acres of cover crops in order to preserve the natural resources for which the Shore is so well known.
- 10) Northampton County is the leading vegetable producing county in Virginia based on cash receipts.
- 11) Accomack County is the leading soybean producing county in the Commonwealth with production totaling over 1.2 million bushels from 34 thousand acres.

#### **SOURCES**

https://www.vafb.com/membership-at-work/agriculture/agriculture-facts

https://www.agday.org/sample-scripts

https://www.nass.usda.gov/Publications/AgCensus/2017/Online\_Resources/County\_Profiles/Virginia/index.php

Eastern Shore Soil and Water Conservation District Manager, 2023

http://www.vdacs.virginia.gov/press-releases-170224-nass.shtml

# CAPE CHARLES ARBOR DAY 2023

Saturday, April 29, 2023

9:00 am - 12:00 pm

Strawberry Plaza (corner of Mason Avenue and Strawberry Street), Cape Charles

#### **Planned Activities include:**

- Arbor Day Proclamation (Mayor of Cape Charles)
- Cape Charles Tree City USA designation (Mayor of Cape Charles)
- FREE plant giveaway: Seedlings and other native plants provided by ESSWCD
- Master Gardener plant clinic
- Information on trees
- Other fun activities

#### **Partners:**

- Eastern Shore Soil and Water District
- Cape Charles Tree Advisory Board
- Eastern Shore of Virginia Master Gardeners
- Virginia Department of Forestry
- Town of Cape Charles



| VCE & ESAREC Contact Information  |                  |   |                      |                                  |  |  |
|---|------------------|---|----------------------|----------------------------------|--|--|
|   | Faculty/Staff    | Title   | Email                | Work/Cell Phone                  |  |  |
| Northampton County<br>Cooperative Extension<br>16392 Courthouse Rd<br>PO Box 457<br>Eastville, VA 23347   | Ursula Deitch    | ANR Agent   | ursula@vt.edu        | 757/678-7946                     |  |  |
|   | Erin Morgan      | 4-H Agent   | emorgan2@vt.edu      | 757/678-7946                     |  |  |
|   | Amanda Hurley    | Unit Support Staff                                  | amandalh@vt.edu      | 757/678-7946                     |  |  |
|   | Faculty/Staff    | Title   | Email                | Work/Cell Phone                  |  |  |
| Accomack County Cooperative Extension 23185 Front St. PO Box 60 Accomac, VA 23301   | Theresa Pittman  | ANR Agent   | tpittman@vt.edu      | 757/787-1361                     |  |  |
|   | VACANT           | 4-H Agent   |                      | 757/787-1361                     |  |  |
|   | Rachel Barnes    | Unit Support Staff                                  | mrbarnes@vt.edu      | 757/787-1361                     |  |  |
|   | Faculty/Staff    | Title   | Email                | Work/Cell Phone                  |  |  |
| Eastern Shore Agricultural Research & Extension Center 33446 Research Dr. Painter, VA 23420 https://www.arec.vaes.vt.edu /arec/eastern-shore.html | Mark Reiter      | Director/Professor, Soils &<br>Nutrient Management  | mreiter@vt.edu       | W 757/807-6576<br>C 757/693-2556 |  |  |
|   | Vijay Singh      | Assistant Professor,<br>Weed Science                | v.singh@vt.edu       | W 757/807-6579<br>C 479/713-0094 |  |  |
|   | Emmanuel Torres  | Assistant Professor,<br>Horticulture                | etorres@vt.edu       | C 352/682-0708                   |  |  |
|   | Doug Higgins     | Assistant Professor,<br>Plant Pathology             | doughiggins@vt.edu   | C 517/803-0636                   |  |  |
|   | Lorena Lopez     | Postdoctoral Associate,<br>Entomology               | lorelopezq257@vt.edu | C 954/529-9042                   |  |  |
|   | John Mason       | Research Specialist, Soils &<br>Nutrient Management | masonje@vt.edu       | W 757/807-6582                   |  |  |
|   | VACANT           | Research Specialist,<br>Weed Science                |                      | W 757/807-6596                   |  |  |
|   | RC Cooley        | Research Specialist,<br>Horticulture                | robertc42@vt.edu     | W 757/807-6583                   |  |  |
|   | Hélène Doughty   | Research Specialist,<br>Entomology                  | hdoughty@vt.edu      | W 757/807-6592<br>C 757/999-0780 |  |  |
|   | VACANT           | Farm Manager  |                      | W 757/807-6596                   |  |  |
|   | Andrew Fletcher  | Asst. Farm Manager                                  | alf20007@vt.edu      | W 757/807-6596                   |  |  |
|   | Belinda Sterling | Administrative & Office Specialists                 | belindas@vt.edu      | W 757/807-6586                   |  |  |







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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If you are a person with a disability and desire any assistive devices, services or other accommodations to participate in any activity, please contact Amanda Hurley at 757-678-7946\* (\*TDD number is (800) 828-1120) during business hours of 8:00 a.m. and 4:30 p.m. to discuss accommodations.