Views From The Foothills A Publication of the Culpeper Soil & Water Conservation District Vol. 24 Issue 3 Serving Culpeper, Greene, Madison, Orange & Rappahannock Counties Summer 2024 www.culpeperswcd.org

The Culpeper Soil and Water Conservation District Presents the

THIRD ANNUAL

NEW LANDOWNER CONSERVATION SERVICES WORKSHOP

SEPTEMBER 13, 2024 9:00AM - 2:00PM

GRAVES MOUNTAIN LODGE, SYRIA, VIRGINIA



具**達** stevier@culpeperswcd.org (540) 825-8591

REGISTRATION REQUIRED

Limited to 75 attendees

LUNCH **INCLUDED!**





- Culpeper Soil and Water Conservation District
- ✓ Natural Resource Conservation Service
- ✓ VA Department of Forestry
- ✓ VA Cooperative Extension
- ✓ VSU Small Farm Outreach Program
- ✓ Virginia Outdoors Foundation
- ✓ Piedmont Environmental Council
- ✓ Smithsonian VA Working Landscapes
- ✓ Ponds



United States Department of Agriculture

Natural Resources Conservation Service



Virginia Tech · Virginia State University













NEW YEAR — NEW FUNDING

This article is lightly edited from last July. The story of robust funding continues, even increases. Record setting year after year — that's what has been occurring here at Culpeper Soil and Water the most recent few years. Newsletter readers and recipients of our outreach letters have heard from us numerous times over recent years "chatting up" all the financial commitments made by our Virginia General Assembly towards accomplishing water quality improvements and protections in Virginia. Well here we are once again. Robust funding. During the most recent fiscal year which just ended our staff allocated \$7 million in conservation incentive funding across our five counties. That is a real bell ringer for sure. To put that in perspective, it wasn't that many years ago that \$7 million was the level of all state funding for the Chesapeake Bay watershed in Virginia and now it's happening in just our five counties. And ... as you read this, staff here are already allocating the next \$9 million which we recently received for this year that just commenced. That's correct. Another \$9 million for on the ground management practices that benefit the farm, benefit the environment and help Virginia continue on its trajectory towards Chesapeake Bay restoration. So big kudos to Culpeper District staff for all their hard work and enduring efforts, kudos to all the land owners and producers who keep stepping up to engage our services and the incentive programs and make a difference in Virginia and kudos to the General Assembly and all those along the way who are involved in securing competitive levels of funding to "move the needle" on the "Bay meter". As we have said before and probably will say again, we are 100 percent in favor of the voluntary approach to environmental management. It is the preferred pathway forward and certainly involves education AND IT NECESSARILY IN-VOLVES YOU. So stay tuned. And call us. An assessment of your opportunities and strategizing a possible path forward come at no cost and no obligation from you. You can turn this page and see a chart of the most common Best Management Practices utilized in the District. This newsletter comes out quarterly each and every year, there are numerous workshops coming soon and if you are a new landowner or operator — put Friday September 13, 2024 on your calendar right now (see front page). You need to hear all this. Call Stevie at 540-825-8591 and make the reservation. Lunch provided.

CROP PRODUCERS COVER CROP SIGNUP ALERT: Planting Payments Increased

Signup is currently underway with the Culpeper Soil and Water Conservation District for this fall's cover crop program. Significant changes were recently adopted that have considerably improved options for producers to participate, and even increase their acreage in cover crops. Planting date deadlines were extended for both the nutrient management cover crop program (crop is terminated in the spring) and the harvestable cover crop program. These deadlines were extended to better accommodate producers and provide more flexibility during the demanding fall harvest. The deadline for harvestable cover crops and early planting of nutrient management cover crops is October 25, 2024, while the new deadline for regular planting of nutrient management cover crops is November 15, 2024. According to many producers in the District, this change has been a significant improvement to the program.

Cover crop support payments have also been increased for the current program year due to the increase in virtually all input costs. Current payment rates are structured as follows; \$20 per acre for har-vestable cover crops; \$40 per acre base for nutrient management cover crops, plus options for additional \$30 per acre for early planting of nutrient management cover crops and additional \$20 per acre if the producer uses one of the select rye cultivars that have been identified as particularly good scavengers of nutrients. This could allow producers to receive a cumulative payment of up to \$90/acre.

Producers also have options for other agronomic practices such as grass filter strips along live or intermittent water bodies (which now have enhanced payment options that include \$80/acre rental payments for the life of the contract paid up-front), grassed waterways for areas of crop fields susceptible to channelized water flow, payments for adopting or continuing no-till crop planting, and precision placement of fertilizer on cropland.

For more information, contact 540-825-8591.

Agricultural Cost Share Practices

Culpeper & Rappahannock (540) 825-8591

- David Massie davidm@culpeperswcd.org ext. 1004
- Amanda McCullen amandac@culpeperswcd.org ext. 1003
- Cheyenne Sheridan <u>cheyenneS@culpeperswcd.org</u> ext. 1008

Green, Madison & Orange

- Spencer Yager spencery@culpeperswcd.org ext. 1012
- Kendall Dellinger kendalld@culpeperswcd.org ext. 1009
- Lily Smith lilys@culpeperswcd.org ext. 1010

Practice	Details
Grazing Land Management with Stream Exclusion	 Stream exclusion fencing & water development. Includes fence, well, water troughs, pipe, stream crossings, rotational fences, etc. Covers 85% of <i>estimated</i> cost with 35' buffer & 100% with 50' buffer. Buffer payment rate of \$80/acre/year paid upon installation of all practices. 10 and 15 year contracts available.
Stream Exclusion with Narrow Width buffer	 Stream exclusion fencing & water development with reduced setback. Includes fence, well, water troughs, pipe, stream crossings, rotational fence, etc. Covers 60% of <i>estimated</i> cost with 10' buffer & 75% with 25' buffer. 10 and 15 year contracts available.
Afforestation of Crop, Hay & Pastureland	 75% of eligible cost for planting trees (hardwood or conifers). \$100/acre for 10 year incentive & \$150/acre for 15 years.
Woodland Buffer Filter Area	 Planting trees in riparian areas. 95% of eligible cost for planting hardwoods or conifers. Conifers: \$100/acre for 10 years OR \$150/acre for 15 years. Hardwoods: \$100/acre for 10 years OR \$250/acre for 15 years. Buffer payment rate of \$80/acre/year paid upon installation.
Cover Crops	 October 25th cut off for harvestable cover crop & early planting date for cover crops to be killed in the spring November 15th, cut off planting date for kill down crops. Note: Dates have been extended by two weeks. Producer input led to this change! Rates: \$20/acre to harvest, up to \$90/acre to kill & \$45/acre for legumes.
Nutrient Management Planning	 Up to \$4/acre to have a nutrient management plan written for your farm. A great way to save money on input costs!
Precision Nutrient Management on Cropland	 Up to \$8/acre for the precision application of nitrogen & phosphorus to cropland. Must have current nutrient management plan: provide records, maps & a bill for nitrogen/phosphorous application.
No-Till & Cropland Conversion	 Up to \$70/acre to convert from conventional tillage to a no-till system for 5 years. Up to \$410/acre to convert cropland to permanent hay or pasture. 10 or 15 year contracts available.
Sod Waterway, Grass Filter Strips & Critical Area Seeding	 Up to 75% to grade & seed gully erosion. Up to 75% to establish grass filter strips along waterways adjacent to crop, hayland or animal holding areas. NEW! Buffer payment rate of \$80/acre/year paid upon installation. Up to 75% to grade, fill & seed critically eroding areas.
Continuing Conservation Initiative	 \$0.50-\$1.25/linear foot of stream bank protected with fencing. \$250-\$1,000 per water system, water trough or stream crossing. A great way to receive funds to maintain existing infrastructure!
Streambank Stabilization	 Covers 75% of the cost to stabilize &/or grade eroding streambanks on ag or forestall land Can also cover slope toe rip rap for protection (if required), vegetative planting, trees/shrubs Requires engineered design which is a reimbursable expense

Conservation District Announces Scholarship Recipients

Each year the Culpeper Soil & Water Conservation District awards educational scholarships to students who plan to pursue a career in a conservation related field. Financial assistance is available for eligible students from Culpeper, Greene, Madison, Orange and Rappahannock Counties. Applicants must be full time students enrolled in or who have been accepted to a college undergraduate or graduate program related to soil and water conservation, natural resource management, animal science, environmental science or other related programs. This year, Joshua James Lamb was chosen to receive the annual John H. Boldridge Memorial Scholarship and Kayleigh Dugger was chosen to receive the Laura Campbell Memorial Scholarship. The full listing of recipients:

- Caitlyn Chaney graduated from Liberty High School and is a Culpeper resident. She will attend Bluefield College, where she will major in Biology and Environmental Science (\$2,000 award).
- Olivia Devening graduated from Highland School and is a Rappahannock resident. She will
- attend the University of Vermont, where she will major in Environmental Science (\$2,000 award).
- Kayleigh Dugger graduated from Culpeper County High School. She is a current undergraduate student at Western Carolina University, where her major is Geology (\$2,000 award).
- Ava Hettinger graduated from Madison County High School. She will attend Virginia Tech, where she will major in Agribusiness (\$2,000 award).
- Joshua James Lamb graduated from Madison County High School. He will attend the Virginia Tech, where he will major in Agriculture Technology (\$2,000 award).

The Culpeper Soil and Water Conservation District is honored to recognize these students for their achievements and wish them well in their future endeavors.

Students Chosen for Summer Camps

Culpeper Soil and Water Conservation District supported two students to attend Camp Woods and Wildlife held June 17-22 at the Holiday Lake 4-H Center in Appomattox, Virginia. The students representing the District were:

- Noah Stuart (Culpeper)
- Mary Reinboldt (Rappahannock)

0% Interest Loans Available

Are you interested in conservation practices but do not have the money upfront to fund the project? No worries. Department of Environmental Quality's Ag BMP Loan Program offers funds for you with no money upfront with 0% interest, no long-term requirement, and potential for principal forgiveness. Fortunate for you, projects are accepted year-round and reviewed monthly. Debt repayment begins 6 months after project completion with 1-to-10-year repayment schedules depending on loan amount and asset useful life. DEQ will prioritize applications and tentative authorization will be granted. Contact DEQ today at 804-929-5085 to find out if you're eligible.

Riparian Forests For Landowners Program

Online: Riparian Forests For Landowners Program: Virginia Department of Forestry

The Virginia Department of Forestry (DOF) Riparian Forests for Landowners (RFFL) program provides flexible, no-cost riparian forest buffer installation and one year of maintenance to landowners. The program is being implemented by DOF and partner organizations in a unique watershed-based partnership.

Funding is provided by the Inflation Reduction Act through the USDA Forest Service and the Commonwealth of Virginia's Water Quality Improvement Fund Act.

Eligibility

This program is open to private property owners including property/homeowner's associations or civic leagues in rural, urban or suburban areas.

Funding and Requirements

This turnkey program covers the planning, site preparation, planting and one year of maintenance for riparian forest buffer plantings.

- Buffers may be pine, hardwood or a mix of both.
- Buffers must be at least 35 feet wide and no greater than 300 feet wide per side from the water's edge.
- Land must have less than 20% coverage by invasive plant species to qualify for this program. *The landowner must agree to retain the buffer as forest for 15 years.*

Buffer Planting Location

Buffer can be installed on open land adjacent to a water feature where a forested buffer of at least 35 feet in width from the water's edge can be planted. An existing buffer may be expanded up to 300 feet from the water's edge.

The water feature may be any of the following bodies of water:

- Streams
- Rivers
- Lakes, ponds and reservoirs/municipal water supplies
- Seeps and springs
- Karst features
- Sloughs
- Wetlands
- Water features within wetlands
- Fresh and saltwater marshes
- Irrigation ditches, canals and other man-made water features

To Apply

DOF will accept continuous sign-ups for this program until funding is depleted. Eligible projects will be awarded on a first-come, first-served basis with planned implementation from fall 2024 to spring 2025 and follow-up maintenance support through 2026.

Complete this survey-style Landowner Interest Form and a DOF forester or representative from one of our partnering organizations will reach out to you.



New Forester Assignments:

Culpeper & Rappahannock: Peter Schoderbek 434-282-4169

peter.schoderbek@dof.virginia.gov

Greene & Madison: Ed Furlow 540-395-1164 ed.furlow@dof.virginia.gov

Orange: Ed Furlow (until further notice)

Save Money with Soil Testing to Improve Your Lawn

Caring for the environment also means caring for your lawn. By using proper mowing and maintenance practices, you can enjoy a healthy, beautiful lawn while protecting local streams, rivers and lakes.

Our homes contain impervious surfaces (rooftop, patio, and driveway) that can't absorb and filter rainfall. The underlying soil characteristics of the lawn can affect how the lawn absorbs and filter the impervious runoff. Soil compaction, low pH (e.g. acid soils) and low nutrients can impact how you grow vegetation in your lawn. Improperly applied or excess fertilizer and other chemicals are not retained in the landscape, and can contribute to harmful algal blooms and other water quality problems.

What is lawn care? It's not just seeding, watering and mowing. We must amend the soil not only to feed the grass but to improve soil structure. Managing clippings and leaves are all part of lawn care too. Returning these byproducts improve the soil and vegetation. How we care for our lawn determines the degree of the environmental benefits and impacts we achieve.

Healthy lawns can help prevent erosion, reduce runoff, and filter rainwater. A healthy lawn has uniform and mature vegetation that inhibits erosion and retains nutrients. A healthy lawn can capture over an inch of rain; traps dust and dirt; convert carbon dioxide to oxygen; and reduces the heat island effect with air temperatures up to 30 degrees cooler than pavement. A sparse lawn with bare soil needs improvement either by amending the soil or selecting different landscape plants.

The soil should be tested every three years. A composite soil sample of the whole yard is collected. A soil test includes information on the amount of nutrients, organic matter and pH level. The proper balance is essential to a healthy lawn. Additional assessments of patchy bare spots could be done to verify foot traffic, recent disturbance, disease or standing water.

The Culpeper Soil and Water Conservation District is working with your local Extension agent to make sure homeowners like yourself have the knowledge and resources to do your part. The District is offering a voucher to cover the cost of the soil test. For these vouchers please contact the District at 540-825-8591 or stephanieD@culpeperswcd.org. For more information on lawn care see the Virginia Extension Publication list: https://www.pubs.ext.vt.edu/tags.resource.html?tag=pubs ext vt edu:lawns.



FREE LAWN SOIL TESTS ARE STILL AVAILABLE!
CONTACT STEPHANIE DENICOLA AT
stephanied@culpeperswcd.org for info!

Welcome David Cox!

David Cox was elected to represent Greene County on the District Board in 2023. He has been in the dairy business for 42 years. He previously served on the Culpeper Soil & Water Board in the 1990s. He also served 8 years on the Greene County Board of Supervisors, including one year as chair. He is President of the Dyke Volunteer Fire Company and a custom hay operator. He and his wife, Jennifer have three daughters who were all raised on the family farm.





Meet Anthony Jewett!

Anthony Jewett was elected as a director for Madison County in 2023. Anthony is from Madison County and while he wasn't raised in a barn, he did spend a significant amount of time in one growing up. Currently he is an owner/operator, with his parents and brother, of a farm in southern Madison. Their farm has a history of early adoption of soil and water conservation techniques, being among the first in the area to adopt full no-till and widespread usage of cover crops. Anthony has two degrees from James Madison University; a BBA in Computer Information Systems and a BS in Digital Video and Cinema. He currently works in the information technology field by day and on the farm afternoons/weekends/days off.



Aerial Photography & Videography:

Homes, land, real estate & special events

Phone: 703-887-2309

Email: back40droneworx@gmail.com

YouTube: @back40droneworx Website: back40droneworx.com

Thermal Drone Services (Day or Night)

Finding lost people, pets and livestock

Trespasser & poacher deterrence (Thermal or visual cameras can locate unwanted guest)

Deer management surveys (Fall & winter) Leaf off is needed for accurate analysis

Deer scouting

Finding harvested deer (All hunting stops for the day once drone operations begin)

Mapping & Inspections



Getting to Know and Understand your Soil With NRCS Web Soil Survey

Soil science integrates scientific principles from physics, biology and chemistry to illuminate how soils provide a myriad of essential services to not only the human population but to at least all of terrestrial life here on the planet. It provides an understanding of how soil properties relate to and can be managed for optimal agricultural production, forest, range and wetland management, land development planning and urban land use, global biogeochemical cycles, ecosystem function and much, much more. It can also inform you on what not to do. Soil scientists research soil chemical and microbial processes, geochemical and physical processes, map soil characteristics and provide a technical and scientific background for all the ways we use soil. The study of soil science is not a static thing; new research on a multitude of fronts continues year after year. For example; did you know that many if not most of the antibiotics we rely on to maintain our health were derived from soil microbes? Yes it's true.

Huh, did we mention soil mapping in there somewhere? If you haven't already you can educate yourself on your own soils right there at home. Just follow these simple instructions and get introduced to Web Soil Survey from USDA: https://websoilsurvey.sc.egov.usda.gov.

- 1. Click on the green "Start WSS" green button.
- 2. On the left pane under "Quick Navigation" select State and County then click on "View."
- 3. Click on the + magnifier found at the upper left top of the map section.
- 4. Using the left mouse held down, draw a rectangle around the approximate location you are looking for and then release the mouse and the screen will zoom in closer.
- 5. Repeat step 5 until you get a good zoom on the area you are interested in. You may need to use the "hand" icon at the top of the map section to move the map and center it on your screen.
- 6. Click on the Area of Interest (AOI) icon at the top of the map. Either icon will work. Pick a spot of the map that is approximately at the northwest corner of your area of interest; maybe even a little outside the area is better. Holding the mouse button down and drag the line to form your Area of Interest.
- 7. Now go to the top of the screen and click on "Soil Map." You will now see your soils mapped and identified with some preliminary information about each soil identified as present in your AOI. Clicking on any individual soil names in the left side pane will give you even more information on your soil. Information about various layers of soils and soil types going down deep below your AOI, including limitations due to bedrock or underground water, flooding and ponding. Feeling smarter yet? It gets better.
- 8. Now close out that "Map Unit Description" pane that recently opened and go up top again and click on "Soil Data Explorer." On the left pane you can choose any of the many "Suitabilities and Limitations" reports. For practice we suggest you click "Water Management." The click "Pond Reservoir Areas." Then you can click on "View Description" so you can better understand the ratings you will read next. So, digest this information. Then click on "View Ratings" and you will get a rating for each soil in your Area of Interest.
- 9. Ok, that is basically it. There are other ways to approach the use of Web Soil Survey but this illustrates the basic use of the tool. One can learn a lot just with this simple lesson. Anyone wishing to get a more site specific, detailed analysis for any envisioned use would do well to hire a professional soil scientist.

Cost Share for Septic System Maintenance and Repairs Opens to Entire 5-County Area

By Henny Calloway, CSWCD Conservation Specialist II

All residents of the District are now eligible for reimbursement of fifty percent of the expense of pumping, maintaining, repairing or replacing on-lot septic systems. The Culpeper Soil and Water Conservation District has just received additional funding to expand their current septic system program to all areas of the five county conservation district; all areas Culpeper, Greene, Madison, Orange and Rappahannock Counties. This program is focused on reducing any existing or potential impacts on local ground and surface water quality. E. Coli bacteria in some local streams has long been identified as being higher than expected by state water quality standards, although other pollutants can also be involved, particularly nutrients. An additional benefit to the property owner is the assurance that their system is up to standards and functioning properly. It is a win-win for both water quality and property value. This grant compliments several others already in existence by expanding the options to the entire District.

Program participants are eligible for several different payments depending on the actual needs of their system. Reimbursement payments are typically fifty percent although can go as high as eighty percent for individuals that qualify for low income status. Maximum payments to property owners under average income levels are:

- \$225 max towards a pump out (up to \$360 low income)
- \$3,250 max towards a pump out and inspection (up to \$5,200 low income)
- \$3,750 max towards a repair (up to \$6,000 low income)
- \$6,250 max towards a conventional system (up to \$10,000 low income)
- \$8,250 max if a pump is required to move the liquids to the drain field (up to \$13,200 low income)
- \$15,750 maximum towards an alternative engineered system (up to \$25,200 low income)
- \$6,250 maximum towards connection to public sewer (up to \$10,000 low income)

Pump outs and inspections are encouraged by everyone; such preventative maintenance extends the life of a system and prevents higher costs later on if the systems fail. If further repairs are indicated by the inspection, the owner is still eligible for the additional repair payments. Applications are required and need to be approved prior to the work being done or funding can be declined. Free assistance with initial assessments of individual system needs is available from the District. Reimbursement payments are made promptly once the work has been completed.

The program is entirely voluntary and assistance from the District is free of charge. Further information on the program is available from the District at 825-8591 or 948-7531. Funding for these projects has been secured by the Culpeper Soil and Water Conservation District from the Virginia Department of Environmental Quality, Non Point Source Program, Commonwealth of Virginia.



Be Septic Smart — Think at the Sink!

Septic Smart Week is September 16 through 20, 2024! One in five US homes have septic systems. Yours may be one of them. If your septic system is not properly maintained you may be risking your family's health, hurting the environment and flushing thousands of dollars down the drain. Septic Smart is a program developed by the Environmental Protection Agency (EPA) to educate homeowners about septic system maintenance.

- Think at the Sink! What goes down your drain has a big impact on your septic system! Avoid harsh chemicals and use cleaners/detergents in moderation.
- **Don't strain your drain!** Use water efficiently and stagger use of water based appliances (such as washing machines and dishwashers) to avoid a back up of your septic system into your house.
- **Keep it clean!** If you have a well, many things can contaminate your drinking water, such as a failing septic system. Test your well water regularly!
- Shield your field! Tree and shrub roots, cars and livestock can damage your drainfield.
- **Protect it and Inspect It!** Regular septic system maintenance can save homeowners thousands of dollars and protect public health.
- **Don't Overload the Commode!** A toilet is NOT a trash can! Disposable diapers, wipes, feminine hygiene products, cigarette butts, cat litter and more can damage your septic system.
- **Pump your Tank!** Ensure your septic tank is pumped at regular intervals as recommended by a professional and/or local permitting authority.

More information can be found at https://www.epa.gov/septic/septicsmart-homeowners.





Small Farm Outreach

The Small Farm Outreach Program (SFOP), a part of Cooperative Extension at Virginia State University, educates and empowers small, limited-resource, socially disadvantaged and veteran farmers and ranchers to own, operate and sustain farms and ranches independently with agricultural training programs that improve farm management skills and quality of life. For more information, visit https://www.ext.vsu.edu/small-farm-outreach-program.

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Drinking Water Testing Clinics for Residential Wells

The Virginia Household Water Quality Program (VAHWQP) is a Virginia Cooperative Extension program that is designed to improve the water quality and health of Virginians by evaluating private water supplies. Initiated in 1989, VAHWQP drinking water clinics have been conducted in nearly every county across Virginia, and 35,000 samples have been analyzed and results confidentially returned to participants. The best part: your water test results are explained in a helpful meeting, where ways of preventing contamination and treating water quality problems are also addressed. Drinking water clinics are organized by your local Extension Agent and Virginia Tech faculty in the Biological Systems Engineering Department. *Participation is voluntary and all information is kept strictly confidential*. Anyone with a private water supply system (including wells, springs, and cisterns) may participate.

The Virginia Well Owner Network (VWON) is a linked, capacity-building program. A group of Virginia Cooperative Extension agents and volunteers are trained in proper well construction and location, maintenance and protection of wells and springs, interpretation of water analysis, and water treatment options. The network is an excellent resource for homeowners.

Samples are analyzed for the following: iron, manganese, nitrate, lead, arsenic, fluoride, sulfate, pH, total dissolved solids, hardness, sodium, copper, total coliform bacteria and E. Coli bacteria. Confidential reports are easy to read and accompanied by a sheet explaining what the numbers mean.

The local date for Culpeper and Rappahannock is July 10. The date for Greene & Orange is September 18.

- Culpeper: Linda Baldwin at lindab75@vt.edu or 540-727-3435 x353
- Greene: Sarah Sharpe, seweaver@vt.edu or 434-985-5236
- Orange: Clare Lillard at lclare4@vt.edu or 540-672-1361
- Rappahannock: Linda Baldwin at <u>lindab75@vt.edu</u> or 540-727-3435 x353

Culpeper SWCD regionally sponsors these clinics to help reduce the cost of the tests for participants.

It is our understanding that in Culpeper and Rappahannock Counties there may be additional opportunities for low income households.

Since 2006, 510 samples in the Culpeper District have been tested, covering over 850 people.



Welcome James!



James Ingram, born in Mississippi, grew up moving around the southern states. He spent most of his early years growing up in Texas around the DFW area and later moved back to Mississippi where he would attend high school.

After sigh school he attended Texas A&M University where he would go on to obtain a degree in Rangeland and Ecological Management under the School of Agriculture. While at A&M he was part of the Rangeland Club and became a junior member of the Society for Rangeland Management (SRM). While on the team he and the team would go on to win first place in the Texas section Undergraduate Rangeland Management Exam (URME) and third place in the North American section. Because of the Range Club and surround staff he grained a greater interest in how ecosystems and the things within coexist together. This led him to seek opportunities to that would allow him to broaden his knowledge of ecosystems and their diversity.

The exploration for more knowledge would lead him to Colorado where he would be surrounded by alpine and high-altitude ecosystems. This would give him a whole new understanding of how biotic and abiotic organisms work together to create an ecosystem. While in Colorado he found a love for hiking mountain trails and snowboarding. This would allow him to be in the same area in different times of the year to see how the plants and animals delt with the extreme winters and warm summers. Towards the end of the year he found out that he would be moving to Virginia and so he looked to the USDA for help grow his knowledge and help share it with those around him.

James is the new Soil Conservationist for NRCS.

Missouri Grazing Manual Available

By David H. Massie, CSWCD Conservation Specialist III

The Culpeper Soil and Water Conservation District has copies of the Missouri Grazing Manual available to producers interested in expanding their grazing knowledge. This grazing manual encompasses so many different aspects of grazing management – soils, plant growth, nutrient cycling, water system and fence layout, grazer's arithmetic, and economics of grazing. This manual also brings together different groups of researchers, educators, and producers with broad experience in land management, forage, and livestock systems to provide a comprehensive guide to understanding and managing grassland ecosystems.

This manual will assist producers with furthering their knowledge of grazing management and provide more detailed, specific information they will need to enhance their grazing techniques. Jim Gerrish, a nationally recognized, well-respected grazer, is one of the key contributors and editors of this manual. His background in agronomy, as well as forage management and research, adds an unparalleled perspective which is useful for the beginning grazer as well as the seasoned grazer.

The distribution of these manuals is \$20 each. We also have pasture grazing sticks for sale for \$5 each. Pasture grazing sticks are a great tool for helping producers "train their eyes" to the amount of forage available for their livestock. A two page instruction manual comes with the pasture grazing stick, and District Staff will be happy to assist using this valuable tools on your farm.

Native Plants for Conservation, Restoration & Landscaping

(www.dcr.virginia.gov/natural-heritage/document/pied-nat-plants.pdf)

WHAT ARE NATIVE PLANTS? Native species evolved within specific regions and dispersed throughout their range without known human involvement. Native plants form the primary component of the living landscape and provide food and shelter for native animal species. Native plants co-evolved with native animals over many thousands to millions of years and have formed complex and interdependent relationships. Our native fauna depend on native flora to provide food and cover. Many animals require specific plants for their survival.

WHAT ARE NON-NATIVE PLANTS? Sometimes referred to as "exotic," "alien," or "non-indigenous," non-native plants are species introduced, intentionally or accidentally, into a new region by human activity. Over the millennia, many plants and animals have expanded their ranges slowly and without human assistance. As people began cultivating plants, they brought beneficial and favored species along when they moved into new regions or traded with people in distant lands. Humans thus became a new pathway, enabling many species to move into new locations. What had once been accomplished by the winds and tides or by luckily hitchhiking on, or inside, far-ranging animals, began to take place more frequently through human travel. Species have moved into new ranges in higher numbers and at faster rates as trade and transportation expanded in the last few centuries.

WHAT ARE INVASIVE PLANTS? Invasive plants are introduced species that cause health, economic or ecological damage in their new range. More than 30,000 species of plants have been introduced to the North America since European colonization. Most were introduced intentionally, and many provide great benefits to society as agricultural crops and landscape ornamentals. Some were introduced accidentally, for example, in ship ballast, in packing material and as seed contaminants. Of these introduced species, approximately 5,000 have naturalized and become established outside cultivation. About 1,000 naturalized plant species have become invasive pests that interfere with agriculture, forestry, transportation and utility infrastructure, lawn and garden maintenance, and natural ecosystem processes. Of the 3,200 plant species in Virginia, more than 600, or 19 percent of our flora, have been introduced since the founding of Jamestown. The Virginia Department of Conservation and Recreation currently lists 90 of these species as invasive, following a rigorous risk assessment.

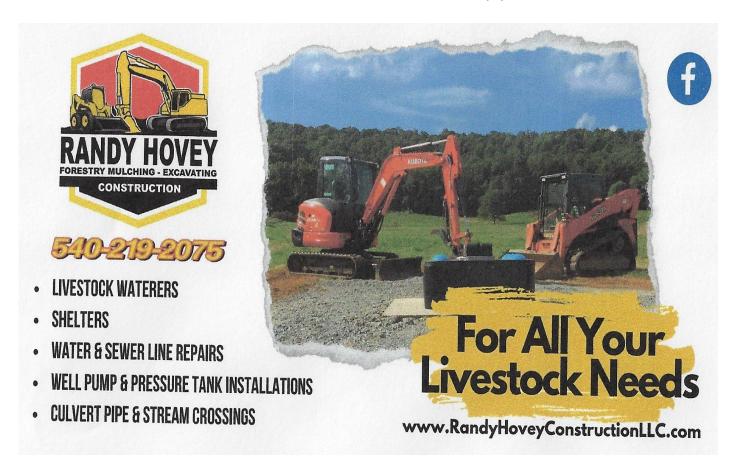
IMPACTS OF INVASIVE SPECIES Invasive species are a major threat, second only to habitat destruction, to native plants and wildlife. They can reduce habitat and population size of native species, alter habitat structure and change ecosystem properties. Fifty-seven percent of plant species listed as threatened or endangered by the U.S. Fish and Wildlife Service are directly threatened by invasive species. In the United States, invasive species cause an estimated \$120 billion in annual economic losses, including costs to manage their effects. Annual costs and damages arising from invasive plants alone are estimated at \$34 billion.

NATIVE PLANTS VS. INVASIVE PLANTS Invasive plants have competitive advantages that allow them to disrupt native plant communities and the wildlife dependent on them. Examples:

- Kudzu (*Pueraria montana*) grows very rapidly and overtops forest canopy, thus shading other plant species from the sunlight necessary for their survival.
- A tall invasive wetland grass, common reed (*Phragmites australis ssp. australis*), invades and dominates marshes, reducing native plant diversity and sometimes eliminating virtually all other species.
- The invasive plant autumn olive (*Elaeagnus umbellata*) has the ability to fix nitrogen, allowing it to invade sites with nutrient-poor soils and displace native species.
- Tree-of-heaven (*Ailanthus altissima*) also grows rapidly and releases a chemical compound that suppresses the growth of other plant species.

Invasive species can marginalize or even cause the loss of native species. With their natural host plants gone, many insects disappear. And since insects are an essential part of the diet of many birds, the effects on the food web become far-reaching.

TALK









The District carries nonwoven geotextile (filter fabric) for sale that meets most state and federally funded project requirements, as well as many on-farm needs. Geotextile is sold by the foot, which comes in 12.5' widths. Please call the Culpeper Office at 540-825-8591 for pricing and more information!

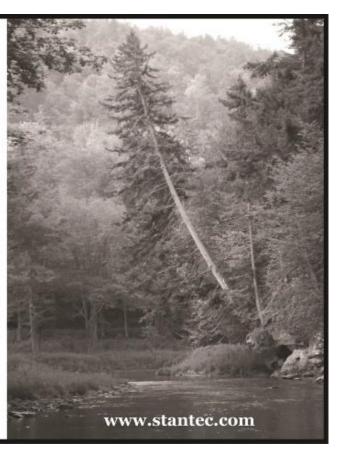




Developing strategies to help your land work for you!

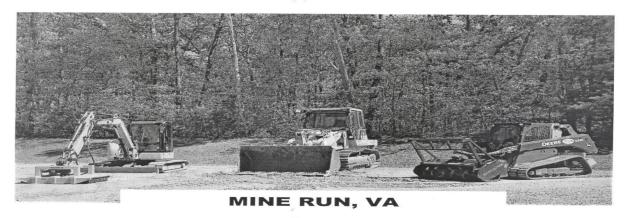
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Call Brian Hawley, PWS for more details. 540.785.5544





COMMERCIAL & AGRICULTURAL SITE WORK FORESTRY MULCHING ROADS & BUILDING PADS BOOM MOWING



OFFICE: \$40-854-7233 JPTUCKEREXCAVATING.COM Continued from page 13

BY PLANTING NATIVES, YOU CAN:

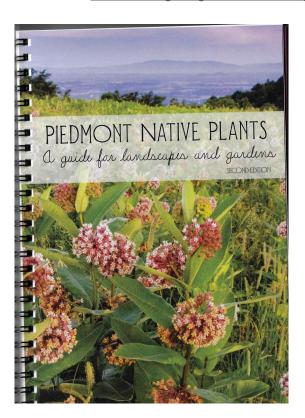
- save time and money native plants often require less water, fertilizer and pesticides
- help birds and pollinator species, including butterflies and bees native gardens provide sanctuaries for migratory birds as they journey between summer and winter habitats
- attract desirable wildlife, such as natural predators of the pests that harm plants in our gardens
- reduce the likelihood of introducing new invasive species
- create an outdoor classroom for children of all ages.

BUYING AND GROWING NATIVE PLANTS Purchasing native plants from specialty growers and nurseries is preferable to taking them from wild places. The collection of wild plants threatens the existence of native species by causing net losses in population size and genetic diversity.

Use local growers and nurseries that offer nursery-propagated native species, especially plants propagated from local populations. One of the greatest benefits of landscaping with native plants is their adaptation to local conditions. However, it is important to select plants with growth requirements that best match conditions in the area to be planted.

TIPS TO GET STARTED

- Use the list at www.dcr.virginia.gov/natural-heritage/document/pied-nat-plants.pdf) to learn which plants grow in your region of Virginia.
- Study the minimum light and moisture requirements for each species, noting that some plants grow well under a variety of conditions.
- Refer to field guides and publications on local natural history for color, shape, height, bloom times and specific wildlife value of the plants that grow in your region.
- For help in designing native plantings with combinations of species that would occur together naturally, visit a nearby park, natural area preserve, forest or wildlife management area to learn about common plant associations, spatial groupings and habitat conditions.
- For specific recommendations and advice about project design, consult a landscape or garden design specialist with experience in native plants. Use the interactive native plant finder on DCR's website at www.dcr.virginia.gov/natural-heritage/native-plants-finders. Check this out!

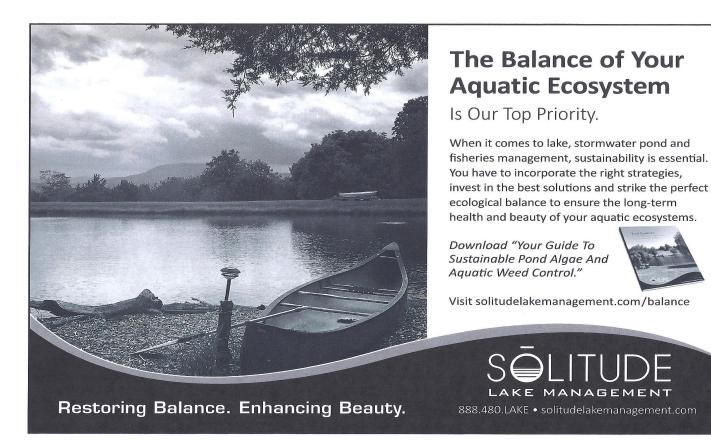


Hot Off the Press: Piedmont Native Plants, 2nd Edition!

The Second Edition of Piedmont Native Plants is available for purchase through our office for \$10 (half the suggested retail price!) This beautiful, full color resources includes pictures, descriptions and growing needs for wildflowers, ground covers, ferns, shrubs short trees, tall trees and edibles.

To purchase, email Stephanie DeNicola at stephanied@culpeperswcd.org.

Check or exact cash accepted.





RAIN BARREL SALE!

A new order of rain barrels are have arrived! Prices are \$90 for one and \$175 for two! This includes barrel, lid, hardware and instructions. For more information, contact Stephanie DeNicola at 540-825-8591 or send an email to: stephanied@culpeperswcd.org.



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Stephanie Rose DeNicola, Editor

Culpeper Office 351 Lakeside Drive Culpeper, Virginia 22701 540-825-8591 540-645-6624 (F) Orange Office 325-B Madison Road Orange, Virginia 22960 540-825-8591

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