



June 2012

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Eastern Shore Soil & Water Conservation District • *promoting locally led conservation*
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Radishes: Growing Acceptance as Cover Crop Option



Forage radish (Daikon) also known as tillage radish is becoming widely accepted as a cover crop option because of some very distinctive characteristics. It has a large taproot and is widely used in many Asian foods. Several local farmers have had success in using forage radish as a unique cover crop and the acreage committed to tillage radish has increased over the last few years on Virginia's Eastern Shore and in Maryland. The forage radish is a member of the Mustard family (Brassicaceae). This family that has a history of being used as animal forage and a cover crop.

Forage radish is a good fit for no-till operations as the large tap roots can grow to a size of 1 inch or much larger and a depth of 18 inches. It retains moisture and assists in the reduction of soil erosion. Forage radishes have the ability to break up layers of compacted soil. This trait has earned the forage radish the nickname of "bio drill" or tillage radish. For best results they should be planted from mid-July to mid-September and left to be winter killed rather than harvested. The radishes decay and leave root channels so the soil dries and warms up faster in the spring.

Research of these radishes indicates that while rye, wheat, oats, and barley roots penetrate the hard soil pan layer of soil, they do not provide the same benefit to some cash crops such as corn, soybeans and vegetables as the forage radish cover crop. Research shows that two times as many corn roots

penetrate compacted sub-soil after following winter fallow and four times as much penetration occurs if corn follows forage radish. Research from the University of Maryland has shown that bio-drilling with forage radish cover crops can take the place of using very large expensive, high horsepower equipment to break up compacted subsoil by deep ripping.

Seeding rates for forage radish cover crop are recommended at 8 to 10 lbs/acre when planting with a no-till or conventional drill and if planting broadcast a rate of 12 to 14 lbs/acre is recommended. Early planting increases the benefits of the forage radish to scavenge the nitrogen and other nutrients from the preceding crop. This prevents leaching of these nutrients into the groundwater. Due to the aggressive growth of forage radish, a stand of five to eight plants per square ft. is enough to control weeds into early April making it a good fit for organic farmers and vegetables grown conventionally.

Research has shown that approximately 7,000 lbs of plant material is added to the soil per acre as organic matter. Forage radish is frost tolerant until temperatures dip below 25 degrees. In order for radishes to be killed temperatures have to go into the lower 20's for several nights in a row. If temperatures return to moderate levels and the growing points are not killed the leaves may grow back. This does not usually occur on the Eastern Shore with the normal freeze thaw conditions in December and January. This is an advantage, as a herbicide does not have to be used. When killed in this natural manner, the radishes decompose rapidly leaving a thin residue by March. Not having to use chemicals for kill down is a big cost saver and

Continued on page 2...

Sign-up for State Cost-share \$\$\$!

Starting July 23, 2012 through August 31, 2012 accepting FY13 Cover Crop sign-up.

Radishes *Continued from page 1...*

....advantage over other cover crops normally. This past unseasonably warm winter on the Shore required the use of chemical and mechanical kill down methods as used normally on other cover crops. However, most years, radishes would not require additional chemical or mechanical kill down methods.

In order for nitrogen released from the radishes to be used in the spring, research indicates that the next crop be planted in April. This helps use the nitrogen to keep it out of the environment and benefits the new crop, much as a starter fertilizer. The radishes can recycle up to 150lbs of nitrogen from a previous crop. There is still much to be learned from this new cover crop, forage radish and time will tell how successful it will be.

Natural Resource and Conservation Service (NRCS) has already incorporated radishes as a cover crop option funded under their federal costshare program. For more information, you can contact Tina Jerome, District Conservationist, at the NRCS office in Accomac, VA at 757-787-0918 x120 or tina.jerome@va.usda.gov.

ESSWCD Awards All Spring Grants



The Eastern Shore Soil and Water Conservation District (ESSWCD) awarded all applicants this year for their projects up to the maximum allotted amount of \$250.00. Educators, schools and community groups in Accomack and Northampton Counties are eligible for these grants. These grants have funded small but far-reaching, at times long-term educational projects. Previous grants have helped fund outdoor classrooms, nature trails, storm drain stenciling, recycling programs, butterfly plantings, materials for water quality testing, bird feeders for the schoolyard, and field trips for environmental study. The grant funds represent interest from an endowment established in 1987 with proceeds from the sale of the District's heavy equipment. This grant was established in honor of the first Education Director for the ESSWCD. Applications will be made available on the District website January of 2013 at www.esswcd.org and awarded by March 2013. Look out for advertisement in your local Eastern Shore News, The Eastern Shore Post or visit the ESSWCD website.

Envirothon 2012



Local Participants of the 2012 Area VI Envirothon Competition

Pictured above are the Eastern Shore teams that participated in the Area VI Envirothon Competition which was hosted by the ESSWCD and funded by Dominion Electric Company. Shore teams were from Arcadia High School (Marianne Simko-Coach), Broadwater Academy (Debby Milburn-Coach), Chincoteague High (Fred Gers-Coach), and Northampton High (Sally Fields-Coach). Broadwater Academy placed first in the Area Competition and Isle of Wight was second place. Since the top three teams from each Area can compete at the State Competition both of these teams represented Area VI at the state level which was a two day event held at James Madison University May 20-21st.

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T-Shirt Design Contest

The Eastern Shore Soil and Water Conservation District started the Envirothon Program in Virginia. The first competition has held 1993 with Arcadia, Chincoteague, Nandua and Northampton High Schools competing. This was also the start of the T-shirt Design Contest. Each year this contest rotates to one of the local schools participating in the Envirothon where the art students get a chance to create a design for the annual Envirothon t-shirt. This design must portray the four major subject areas of the Envirothon competition; aquatics, forestry, soils and wildlife. The 2012 contest was held at Northampton and Shavonda Gunter, a student of David Warren, received the \$50 award along with a few of the t-shirts she designed. The 2013 t-shirt design contest will be held at Arcadia.

To add your name to the District's newsletter mailing list and for a chance to win a free t-shirt, send your name and address to "ESSWCD, 22545 Center Parkway, Accomac, VA 23301, Attn: Free t-shirt" by July 31, 2012.



T-shirt design by Shavonda Gunter of Northampton

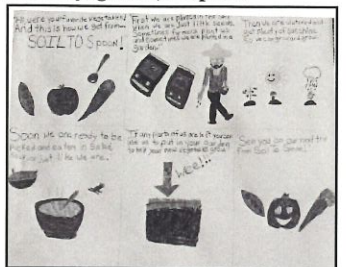
2012 Conservation Poster Contest Winners

This year's poster contest theme was "Soil to Spoon". To see the following winning posters in full color, visit the District's web-site at www.esswcd.org or the Eastern Shore Public Library in Accomac, VA where they are displayed a few weeks in the summer.

1ST PLACE



Above: Faith Johnson of Broadwater Academy, gr K-1, 1st place



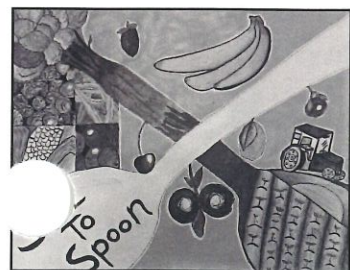
Above: Victoria Spence of Shore Christian Academy, gr 2-3, 1st place



Hunter Bonniwell of Broadwater Academy, gr 4-6, 1st place



Above: Lauren Hunter of Nandua High School, gr 7-9, 1st place

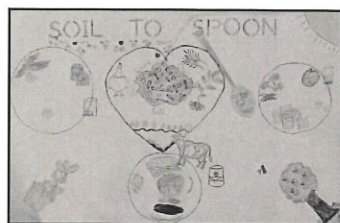


Brittany Scott of Northampton School, gr 10-12, 1st place

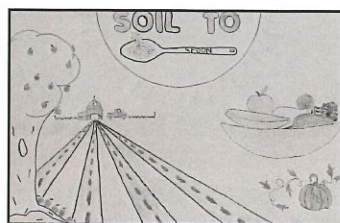
2ND PLACE



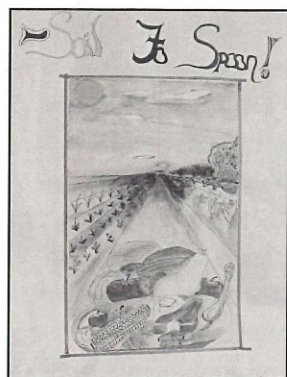
Kylie Newman of Broadwater Academy, gr k-1, 2nd place



Mahika Patel of Shore Christian Academy, gr 2-3, 2nd place



Krupa Patel of Shore Christian Academy, gr 4-6, 2nd place

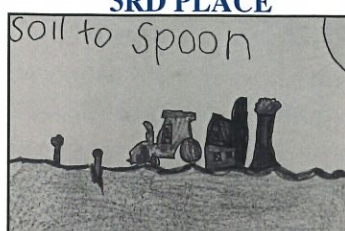


Lakeysha Goffigan of Northampton High, gr7-9, 2nd place



Allison Pike of Northampton High, Gr 10-12, 2nd Place

3RD PLACE



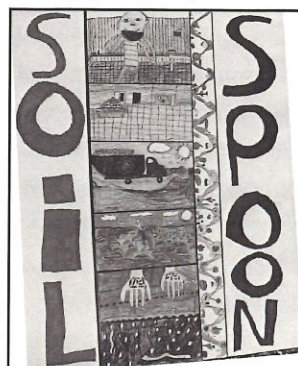
Caleb McIntyre of Broadwater Academy, gr K-1, 3rd Place



Cain Taylor of Broadwater Academy, gr 2-3, 3rd Place



Courtney Floyd of Broadwater Academy, gr 4-6, 3rd place

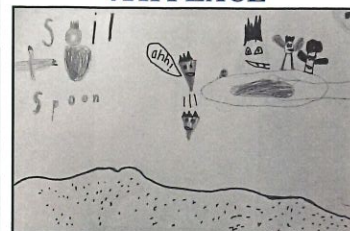


David Schultz of Northampton High, gr 7-9, 3rd Place



Emily Simpkins of Nandua High, gr 10-12, 3rd Place

4TH PLACE



Leonardo Bonilla of Broadwater Academy, gr k-1, 4th Place



Suzanna Long of Broadwater Academy, gr 2-3, 4th Place



Nate Dickinson of Broadwater Academy, gr 4-6, 4th place



Ben Wagner of Nandua Middle, gr 7-9, 4th Place



Staige Goffigan of Broadwater Academy, gr 10-12, 4th place



ESSWCD Awards Two \$1,000 Scholarships



Each year the Eastern Shore Soil and Water Conservation District's Endowment Committee offers the W. Foster Fletcher Conservation Scholarship and the William H. Beasley, Sr. Memorial Scholarship available only to Eastern Shore of Virginia residents who are full-time students or who have applied to a

college undergraduate level curriculum related to natural resources conservation. This year, the scholarships were worth \$1,000 each. The William H. Beasley, Sr. Memorial Scholarship was awarded to **Clara H. Vaughn**, a graduate student attending the University of Maryland, College Park in the fall. **Shane Taylor**, a Randolph-Macon College freshman, was the recipient of the W. Foster Fletcher Conservation Scholarship.

AREC Farm Field Day

The Virginia Tech Eastern Shore Agricultural Research and Extension Center Annual Summer Research Field Day will be held on Wednesday, July 18, 2012 in Painter, Virginia. Registration will begin at 8:00am followed by field tours at 9:00am. The tour will include informative research stops on weed management, soil fertility, insect management, water quality and disease management for vegetable and field crops. A complimentary lunch will follow the tour at 12:00pm. A more detailed program will be available at registration. For questions, assistance with special needs or if you are interested in sponsoring or attending this event, please contact Lauren Seltzer at mlpeyton@vt.edu or Steve Rideout at srideout@vt.edu or please call 757-414-0724 x11.

The Shore Conserver is published quarterly by the Eastern Shore SWCD to provide information to land users. The District customarily meets monthly on the second Wednesday of the month at 5:00pm at the USDA Service Center in Accomac, VA. The public is welcome to attend. To be added to the mailing list, please contact the District office at 757-787-0918 x101.

All programs and services of the Eastern Shore Soil and Water Conservation District and the Natural Resources Conservation Service are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status or handicap.

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