

DAVIDSON

SOIL AND WATER CONSERVATION DISTRICT

Davidson County Agriculture Center - 301 East Center Street
Lexington, NC 27292
Telephone: (336) 242-2075

Published quarterly to provide information to the land users.

CONSERVATION Update

DISTRICT SUPERVISORS

DAVID A. SMITH Chairman	BEN HEGE Vice-Chairman	JERRY HILTON Secretary-Treasurer	KEITH SINK Supervisor	KEVIN BRIGGS Supervisor
----------------------------	---------------------------	-------------------------------------	--------------------------	----------------------------

DISTRICT STAFF

ANDY MILLER Director of Soil & Water Cons.	LLOYD PHILLIPS District Resource Specialist	DEANIE CREECH Office Support IV	KAY ANDERSON NRCS Conservationist
---	--	------------------------------------	--------------------------------------

Volume XXVII, No. 1

January, 2017

SOIL HEALTH – MANAGING COVER CROPS FOR MAXIMUM BENEFITS

In our last issue we discussed the benefits of managing your soil to promote soil health. In that article, we briefly mentioned the importance of following four principles to improve soil health. They are:



1. Disturb the soil as little as possible.
2. Use diverse plants to support a diverse soil ecosystem.
3. Keep a living root growing throughout the year.
4. Keep the soil covered as much as possible.

Cover crops are an essential part of strategies to promote soil health. Cover crops are planted after the harvest of a cash crop and prior to planting the next cash crop. They can provide multiple benefits ranging from adding nitrogen to the soil and increasing soil organic matter to aiding in weed and disease control. Selecting the right cover crop for your particular situation is one of the keys to a successful system. Selecting cover crop species will be covered in following newsletters.

Another key to the successful use of cover crops in a system to improve soil health is selecting the best way and time to terminate the cover crop and plant the next cash crop. Consider these factors as you plan for the best time to terminate your cover crop.

Multi-species cover crops can provide multiple benefits

Advantages for terminating a cover crop early:

- allows time to replenish soil water
- increases the rate of soil warming
- reduces phytotoxic effects of residues on cash crops
- reduces survival of disease inoculum
- speeds decomposition of residues, decreasing potential interference with planter operation
- increases Nitrogen mineralization from lower Carbon to Nitrogen ratio cover crops

Advantages for terminating a cover crop later:

- more residue available for soil and water conservation
- better weed control from allelopathic compounds and mulch affect
- greater Nitrogen contribution from legumes
- better potential for self-reseeding of the cover crop

Terminating cover crops can be accomplished through several methods. Each method has advantages depending on the cover crop and the cash crop that will follow. Cover crops can be terminated by roller-crimping, using herbicides, mowing/chopping, or by using cover crops that will be killed by winter conditions. The most common methods are using a roller-crimper or herbicides. It is usually best to terminate cover crops 2-3 weeks prior to planting the next crop.

Roller-crimping works best for cover crops that are tall grasses and is less effective for low growing plants such as legumes and brassicas. Advantages are that it can kill cover crops without the use of herbicides and may aid in planter operation for the following crop.



Roller crimpers to kill cover crops are available as front or rear mounted models.



Applying herbicides to kill cover crops.

Using herbicides has the advantages of rapidly covering many acres, relatively low herbicide cost, and the ability to kill the cover crop at any stage of growth.

Mowing/chopping allows for quickly terminating large amounts of cover crops without the use of herbicides. Mowing/chopping will speed the decay of the plant matter, may require special attachments on the planter to ensure obtaining a successful stand, and some species will have regrowth if herbicides are not applied.



Mowing or chopping to terminate a cover crop



Winter killed tillage radishes

Successfully using cover crops that will be terminated by winter conditions requires that the cover crop is planted on time, grows adequately, and survives long enough to provide the desired benefits. Mild winter conditions may require the use of additional termination methods.

To take advantage of the cover crop benefits, your planter must be able to attain good seed to soil contact in the conditions that will be left by the cover crops you choose. Most no-till planters can successfully plant into these conditions. Attachments like row cleaners are available for use in very heavy crop residue.

Two workshops will be held this spring to demonstrate using cover crops to promote soil health. Davidson SWCD will hold a field day designed for row crop farmers on March 29, 2017 beginning at the Davidson County Agricultural Center and concluding at Piney Grove Farm of Lexington. The event will include classroom presentations in the morning led by experts and experienced farmers and the afternoon session will visit multi-species cover crop demonstration plots at Piney Grove Farm. Lunch will be provided. There is no fee to attend but registration is required. **Please call the District Office at 336-242-2075 to register by March 22nd.**

“Discover the Cover” a one-half day workshop led by NC Cooperative Extension Service and Davidson SWCD staff members designed for home gardeners and commercial vegetable producers will be held on Tuesday, April 4, 2017. You must register to attend by March 24th. There is a \$10 registration fee that includes a starter cover crop kit complete with seeds and information. Contact the NC Cooperative Extension Service at 336-242-2082 to register.

Stop by the District Office to see some examples of cover crop species in the Cooperative Extension Service Demonstration Garden. The garden has plots with crimson clover, balansa clover, forage collards, and a multi-species plot that includes wheat, rye, triticale, oats, crimson clover, vetch, and turnips.

Please call or stop by the District Office for more information.

Adapted from Managing Cover Crops Profitably, 3rd Edition by, Sustainable Agriculture Research and Education.

Southern Piedmont Envirothon News



Teams are preparing for the 2017 Southern Piedmont Envirothon Competition to be held at Catawba College Center for the Environment on March 14th and 15th. In this event, middle school teams and high school teams from the Area VIII Districts, made up of twelve counties will gather at the college for the local competition. The Envirothon is a fun, hands-on natural science academic competition for teams sponsored by the NC Association of Soil & Water Conservation Districts which is open to all public schools, non-public schools, Vo-Ag groups, 4-H Clubs, FFA, Girl Scouts, Boy Scouts, ecology clubs, and environmental groups. The Envirothon program is a competitive event for middle school and high school teams to compete in natural resources knowledge against other student teams. It stimulates, reinforces and enhances students' interest in the environment, our natural resources, and emphasizes teamwork and higher order thinking skills such as analysis and interpretation. Resource subject areas are: aquatics, current environmental issues, forestry, soils, and wildlife. The top seven teams in each age group at the Area VIII Envirothon Competition qualify to participate in the State Envirothon Competition on April 28th and 29th at Cedar Rock Park in Alamance County. The winning high school team will be eligible to compete in the National Conservation Envirothon Competition. The NC Envirothon has developed team study materials for each of the five subject areas, available at www.ncenvirothon.org on the middle or high school resource pages. Learn more about the Envirothon by visiting: <http://www.enr.state.nc.us/DSWC/pages/envirothon.html>

Soil & Water...Yours for Life

Conservation Poster & Essay Contest - Thank you to all 6th grade students and teachers who participated in the Conservation Poster & Essay Contests held during the fall of 2016. Both contests are designed to supplement the instructions on natural resources as given in the classroom. The intent is to alert students to conservation principles and measures as they relate to each student's life. It is the hope that some of these principles will be absorbed, carried forth in life, and be used by the individual for the betterment of our community. The County Winners will be awarded a monetary gift, plaque, trophy and certificate at the school awards assembly. The school winners will receive trophies and certificates. The County winners in both contests will be entered in the Area VIII Essay and Poster Contests, which is made up of 12 counties. The Area VIII contest winners will receive a monetary award also and will be entered in the NC State Competition, in which the 1st place essay and poster winners will receive monetary awards and recognition. Thank you to our teachers for teaching our young people conservation and your willingness to participation in our Poster & Essay Contest is greatly appreciated.

2016-2017 Essay and Poster Contest Winners

County Essay Contest Winner – **Zachary Spease** – Oak Grove Middle School

County Poster Contest Winner – **Mark Chhim** – Ledford Middle School

School Essay Contest Winners

Central Davidson Middle School.....**Julia Kepley**
 E. L. Brown Middle School.....**Reese English**
 Ledford Middle School.....**Laney Watts**
 North Davidson Middle School.....**Brayden Hill**
 Oak Grove Middle School.....**Zachary Spease**
 South Davidson Middle School.....**Lanie Hulin**
 Tyro Middle School.....**Riley Bailey**

School Poster Contest Winners

Central Davidson Middle School.....**Sheridan Baker**
 E. L. Brown Middle School..... **Luke Burleson**
 Ledford Middle School.....**Mark Chhim**
 North Davidson Middle School.....**Julia Wright**
 Oak Grove Middle School.....**Kelsey Myers**
 South Davidson Middle School.....**Madison Kuritz**
 Tyro Middle School.....**Alexis Brown**
 Davidson County Home School.....**Sawyer Sink**

Resource Conservation Workshop June 25th -30th

Each year our District sponsors one or more high school students who are interested in conservation of natural resources to attend a one-week workshop on the campus of NC State University. The primary objective of this workshop is learning about natural resources and their management in today's environment. It is a week of intensive study requiring student participation in a wide range of conservation topics. Participants will meet and receive guidance from natural resource professionals and have a chance to win cash awards and scholarship money. Subjects to be covered are: Soil Characteristics & Soil Conservation, Wildlife & Fisheries Management, Forest Management, Nonagricultural uses for Soils, Water Quality & Watershed Management. Students will be housed in the Carroll Residence Hall on campus. This is an expense paid workshop sponsored by the NC Association of Soil and Water Conservation. In order to qualify, please return applications by May 5th. Contact our office or visit: <http://www.ncagr.gov/sw/rcw.html> for more information pertaining to this workshop.

NC Envirothon School for Advisors/Teachers

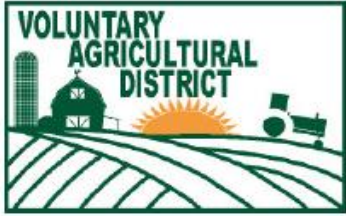
The Envirothon School for advisors and teachers is an opportunity to participate in specialized training while also earning credit toward teacher CEUs or the NC Environmental Education Certification. If you are interested in helping students develop leadership skills while becoming environmentally aware citizens through curriculum and competitions, please register for the Envirothon School. The curriculum includes forestry, wildlife, soils, aquatics, and will be held June 12th -16th in the Raleigh-Durham Area. For more information please visit: www.ncenvirothon.org

North Carolina Agricultural Cost Share Program Attention all Farmers

Come by the Soil and Water office to sign up or receive more information on the N.C. Agricultural Cost Share Program for Water Quality. This is a State funded program to install practices on agricultural land to improve water quality. Assistance is provided to install practices that are needed to protect water quality from runoff on cropland, pastureland, and other agricultural operations. 75% cost-share is available for erosion control measures and for practices on animal operations (in existence for three years) for animal mortality, waste storage, fencing, watering facilities, and other practices as needed to meet resource problems.

Best Management Practices – Many different conservation practices can be used on the farm or in urban areas to maintain healthy soils, prevent soil erosion, managing our water resources and water quality. Some of the most common BMP methods used are: conservation tillage, crop rotation, grassed waterways, ground cover, mulching and seeding, underground drainage, contour planting, terracing, strip cropping, windbreaks, field borders, silt fencing, lining ditches, sediment basins, and rock rip-rap. Recycle many organic wastes by spreading them on the land to add organic matter to the soil. When using hazardous chemicals, prevent soil and water pollution by reading the label and follow the manufacturer’s instructions and precautions. Some hazardous chemicals can become tightly bonded with soil clay particles and remain there for years. This can contaminate food supplies, nearby crops, plants, other vegetation, and can be harmful to humans, animals, fish, and wildlife.

Have you seen this sign in your neighborhood?



Signs are posted at prominent locations to increase public awareness of the Davidson County Voluntary Agricultural District. Participating farms have posted signs at their farms to indicate that their farm is a part of the Voluntary Agricultural District. These new larger signs have been placed to help anyone traveling in the County recognize that agriculture is an important part of the economy in Davidson County. You can sign up to be a part of the Voluntary Agricultural District. Call or come by the District Office for more information.

Thank you for your interest in soil, water, and natural resource conservation

~ Reminders ~

- All programs and services provided by the Davidson Soil and Water Conservation District are available to you at no cost.*
- Test your soil prior to planting. Come by our office to pick up a free soil test kit.*
- Soil conservation is easy if you do it with a plan and take it one step at a time.*
- Pick up an application in our office to become a member of the Voluntary Agriculture District.*
- For more information about any of the above, call our office at 336-242-2075*

Public Notification Procedures – Current Non-Discrimination Statement – The U. S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact USDA’s TARGET Center at (202)720-2600 (voice and TDD).

For more information about anything in this newsletter, call us at 336-242-2075 or check us out on the Web: www.co.davidson.nc.us

Please Remember The Advertisers Who Make This Newsletter Possible:

<p>LEXINGTON FARM AND GARDEN SERVICE INC. <i>“A place where people who love to garden, love to shop!”</i> 1800 S. Main St. Lexington NC 27292 336-248-5333</p>	<p>Carolina Farm Credit  222 W. Center St PO Box 649 Lexington NC 27292 336-243-2136</p>	<p>SINK FARM EQUIPMENT 336-243-5138 www.sinkfarmequipment.com 1840 US Hwy 64 W. Lexington NC 27295 Kubota Kawasaki</p>
<p>Comprehensive Risk Management for Farmers <i>Crop Insurance • Marketing Plans • Commodity Brokerage • Investments</i>  Diversified Services <i>We are Risk Management.</i> 103 Fair Oaks Lane • Winston-Salem, NC 27127 • (336) 602-1464 www.diversifiedservices.com</p>	<p>Hill Oil Company Inc.  405 Market Street Lexington, NC 27292 336-249-3377</p>	<p>Country Farm & Garden Feed * Seed* Fertilizer *Lime* Livestock Supplies Trent and Tina Cook, Owners 68 W. Peacock Ave. Denton, NC 27239 336-859-3752 </p>

RETURN SERVICE REQUESTED

NONPROFIT ORG
 US POSTAGE PAID
 LEXINGTON, NC
 PERMIT NO. 33

DAVIDSON SOIL AND WATER
 CONSERVATION DISTRICT
 301 East Center Street
 Lexington, NC 27292-4107