NC Foundation for Soil and Water Conservation Celebrates Anniversary

On Wednesday, Sept. 18, the NCFSWC celebrated its 20th anniversary at the Farmstead, a family-owned working farm in Mount Pleasant, N.C.

Chartered in 1999, NCFSWC is a nonprofit organization whose mission is to promote, protect and improve North Carolina soil and water resources. NCFSWC works closely with the state's conservation partnership and its 96 soil and water conservation districts.

The anniversary celebration began with a rainfall simulator demonstration, which is part of NCFSWC's Mobile Soils Classroom initiative to promote soil health education, in partnership with the North Carolina Association of Soil and Water Conservation Districts.

Natural Resources Conservation Service (NRCS) Chief Matt Lohr and North Carolina Agriculture Commissioner Steve Troxler provided keynote addresses highlighting the achievements of NCFSWC over the past two decades. NACD Southeast Region Chair Frank Williams represented the national association at the event.

Additionally, NCFSWC presented several awards, recognizing the North Carolina Farm Bureau for providing seed funding 20 years ago to begin the organization; Dr. Bill Davis for leading NCFSWC as the first chairperson, and for his early fundraising efforts; and Cecil Settle who served as the organization's first executive director.

At the end of the gathering, Timothy Beard, NRCS State Conservationist for North Carolina surprised NCFSWC Executive Director Michelle Lovejoy with an award honoring the accomplishments of the organization under her leadership.

From: nacdnews@nacdnet.org
SOIL HEALTH AND COVER CROP FACTS

Ten Ways Cover Crops Enhance Soil Health

ABOUT SOIL HEALTH
Soil health is a hot topic these days, one that is justifiably receiving considerable attention from farmers and their farm advisors.

Whereas in the past, soil testing and evaluation focused more on chemical and physical measures, new research has shown that the biology of the soil is very important to its overall health and productivity.

An incredible diversity of bacteria, protozoa, arthropods, nematodes, fungi and earthworms create a hidden food web in the soil that affects how crops grow, how soil nutrients are cycled and whether rainfall is quickly absorbed into the soil and stays where crop roots can access that moisture.

The USDA Natural Resources Conservation Service (NRCS) has identified four basic principles or approaches for maintaining and improving soil health:

- Keep the soil covered as much as possible
- Avoid disturbing the soil as little as possible
- Keep plants growing throughout the year to feed the soil
- Diversify crop rotations as much as possible, including cover crops

Farmers can support these principles by using cover crops, which are conservation plantings of fast-growing annuals such as rye, clovers, vetches and radishes. Cover crops protect and improve the soil when a cash crop is not growing. In the case of summer commodity crops like corn and soybeans, cover crops can keep the soil covered in fall, winter and early spring. They make it easier to use no-till or other conservation tillage approaches that disturb the soil less, and they help with weed control. Plant diversity is helpful for soil organisms because it gives them a greater variety of food sources, and cover crops are an easy way to diversify a crop rotation that may otherwise see only one or two crops grown in a field. Adding cover crops to a rotation can greatly increase the portion of the year when living roots are present for soil organisms to feed on.

10 Key Impacts of Cover Crops on Soil Health

Besides contributing to the four basic goals or principles for soil health, there are a number of specific ways that cover crops lead to better soil health and potentially better farm profits.

1. Cover crops feed many types of soil organisms
Most fungi and bacteria that exist in the soil are actually beneficial to crops. Many of these soil fungi and bacteria feed on carbohydrates that plants exude (release) through their roots. In return, some fungi and bacteria will trade other nutrients, such as nitrogen or phosphorous, to the crop roots. While cover crops directly feed bacteria and fungi, many other soil organisms eat the fungi and bacteria, including earthworms and arthropods (insects and small crustaceans like the “roly poly”). Thus cover crops can help support the entire soil food web throughout the year.

2. Cover crops increase the number of earthworms
Earthworms are usually the most visible of the many organisms living in the soil. Cover crops typically lead to much greater earthworm numbers and even the types of earthworms. Some earthworms, like nightcrawlers, tunnel vertically, while other smaller earthworms, like redworms, tunnel more horizontally. Both create growth channels for crop roots and for rainfall and air to move into the soil.

3. Cover crops build soil carbon and soil organic matter
Like all plants, cover crops use sunlight and carbon dioxide to make carbon-based molecules. This process causes a buildup of carbon in the soil. Some of that carbon is rapidly cycled through the many organisms in the soil, but some eventually becomes humic substances that can gradually build soil organic matter. A higher level of soil organic matter improves both the availability of nutrients and soil moisture for crops.
4 Cover crops contribute to better management of soil nutrients
By building soil organic matter, cover crops can gradually impact the need for some types of fertilizer. Just as important to nutrient management is the way cover crops can scavenge or collect any nutrients left at the end of a growing season, such as nitrogen left in the field after corn is done growing. The cover crop will hold that nitrogen rather than letting it escape into tile lines leading to rivers and lakes or drain away into groundwater. Eventually that nitrogen will be released in the next season to help the next year’s cash crops.

5 Cover crops help keep the soil covered
When it rains on bare soil, the soil is much more likely to erode, form an impermeable crust and then overheat in summer when exposed to direct sun. Some bare soils can reach 140 degrees, hot enough to kill soil organisms and stress the crop from both heat and excessive soil moisture evaporation. The residue of a cover crop like cereal rye can protect the soil while cash crops are getting established and keep it from getting too hot.

6 Cover crops improve the biodiversity in farm fields
Generally, the more plant diversity in a field and the longer that living roots are growing, the more biodiversity there will be in soil organisms, leading to healthier soil. Growing mixes of cover crops or adding a few different cover crop species to an overall crop rotation—such as cereal rye before soybeans, and oats, radishes or crimson clover before corn—improves diversity. Many Corn Belt commodity farmers are adding a third cash crop to their rotation, usually a small grain such as wheat, and then using the earlier harvest of wheat to grow a more diverse mix of cover crops for several months. They sometimes graze those cover crop mixes for extra profit and because animal manure benefits soil biology.

7 Cover crops aerate the soil and help rain go into the soil
It’s not just earthworms that open up soil channels for rain, but also the roots of the cover crops themselves. This is particularly the case when soil disturbance is minimal from tillage. The extra rain that gets into the soil instead of running off can make a big difference for crop yields, such as in mid-to-late summer in the Midwest, when the rain can come fast in thunderstorms and be followed by long dry spells. The extra aeration created by cover crop roots and earthworms also benefits crop roots and other soil organisms.

8 Cover crops reduce soil compaction and improve the structure and strength of the soil
The typical solution to compaction from heavy farm equipment has been more tillage, but that provides only the briefest of benefits while compounding the problem in the long term. Excess tillage destroys soil structure, while cover crops and the soil organisms they feed create the glue (glomalin) that binds soil particles together, leading to better soil aggregation and stronger soil structure. Research has shown that cover crops (with an assist from earthworms) help loosen compacted soil even more effectively than subsoiling equipment, which takes a lot of diesel fuel. A field with cover crops and minimal tillage, or better yet no-till, will lead to much better soil structure without compaction issues.

9 Cover crops make it easier to integrate livestock with field crops
Beef cattle and other livestock are usually kept on pastures and out of crop fields, which has some conveniences but is not ideal for soil health. Think of buffalo herds foraging on prairies and you can see how natural systems evolved to have an integration of plants and grazing animals. The manure from livestock grazing on cover crops in a grain field can be beneficial for building organic matter and soil health. It is also a great way to get immediate profit from cover crops, as certain cover crop species can be very high-quality forage in late fall or early spring.

10 Cover crops greatly reduce soil erosion and loss
On many fields that have some slope to them, half the topsoil has already been lost from the days when they were first farmed. The future success of farming and our food supply depends on keeping the topsoil we still have, and cover crops are exceptional at helping stop erosion. Using no-till with cover crops can reduce erosion to a tiny fraction of what it would otherwise be in a conventional corn and soybean system. Even with some light tillage, a field with cover crops is still much better protected, especially with winter annual cover crops like cereal rye.

Summary
Methods of improving soil health come back to the core principles identified by NRCS, including a greater diversity of plants, keeping the soil covered, having living roots in the soil throughout the year and disturbing the soil less. As we learn more about soil biology, it’s clear that even modest use of cover crops makes a big difference for soil health. Further information on cover crops, including publications and videos of farmers talking about cover crops and soil health, is available from SARE at www.sare.org/covercrops. More information and fact sheets on soil health are available from NRCS at www.nrcs.usda.gov/wps/portal/nrcs/main/national/soils/health and from the Soil Health Institute at www.soilhealthinstitute.org.

This publication was developed by Dr. Rob Myers, North Central SARE Regional Director of Extension Programs. The SARE program is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2014-38540-22737. Learn more at www.sare.org.

The Soil Health Institute is a national, non-profit organization working to safeguard and enhance the vitality and productivity of soil through scientific research and advancement.

December 2017
Conservation Contests 2019-2020

“Wetlands are Wonderful”

3rd, 4th, 5th and 6th grade Poster Contest –

- Must be titled: “Wetlands are Wonderful”
- No larger than 24” x 36”, no smaller than 18” x 24”
- Must be original work
- Mounted material cannot stick out more than 1/8 inch
- Student info (name, school and teacher name) must be on back of poster

- 3rd, 4th, 5th grade – 1st place $25  6th grade – 1st place $30
- 2nd place $15  2nd place $20
- 3rd place $10  3rd place $15

6th grade Slide Show Contest (PowerPoint or Google Slides) –

- Must be titled: “Wetlands are Wonderful”
- Maximum of 15 slides
- May use animation and sound, but no video
- Be careful...no copyright infringements

- 1st place $30  2nd place $20  3rd place $15

6th grade Essay Contest –

- Must be titled: “Wetlands are Wonderful”
- Must contain 300-500 words
- Be careful...don’t plagiarize
- Either hand written or computer typed

- 1st place $30  2nd place $20  3rd place $15

7th and 8th grade Public Speaking Contest –

- Must be titled: “Wetlands are Wonderful”
- 4-6 minutes
- Do not use personal info in speech

- 1st place $50  2nd place $35  3rd place $25

All contests are open to public, private, homeschool and parochial school students. Stanly Soil & Water offers a classroom program and hands-on activity to introduce the basic concepts of the contest theme, but is not required for participation in the contests. Email rittle@stanlycountync.gov to schedule a classroom presentation. Students may also enter the contests independently.
Area VIII Fall Meeting

The 2019 Area VIII Fall Meeting was hosted by StanlySoil and Water Conservation District on October 19th. Anson, Cabarrus, Cleveland, Davidson, Davie, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly and Union Counties make up Area VIII.

The meeting was held at the Stanly County Agri-Civic Center. Following a light breakfast the business meeting was called to order by Curtis Furr, Area VIII Chairman. Chester Lowder, Stanly Soil & Water Conservation District Supervisor, welcomed everyone to Stanly County. The consent agenda, including the 2019 minutes of the spring meeting, the treasurer’s report and the 2019 budget reports were approved.

Other items of business were reports from the nominating committee, resolutions, Envirothon updates, and introductions of new employees and supervisors.

One resolution was presented as a motion, seconded and passed. Additional information about the resolutions is available at the District office.

The following agencies presented their reports: NC Association of SWCD, NC Division of SWCD, Natural Resources Conservation Service, National Association of Conservation Districts, NC Foundation for SWCD and the NC Conservation District Employees Association.

Service awards were presented by Vernon Cox and Myles Payne. A special award was given to Cokie Jones, Davie SWCD Supervisor for 50 years service. Correll Farms of Rowan County was recognized as the NC Outstanding Conservation Farm Family of the Year.

The afternoon session concluded with a tour of Rolling Hill Cotton Gin in New London, NC.

Brown Creek Soil and Water Conservation District in Anson County will host the Area VIII Spring and Fall meetings in 2020.
Ag Cost Share Programs Available

Soil and Water Conservation Districts implement four cost share programs, all of which share a common goal of increasing water quality. These programs include the Agriculture Cost Share Program (ACSP), the Agricultural Water Resources Assistance Program (AgWRAP), and the Conservation Reserve Enhancement Program (CREP). The District accepts applications year round for each of these programs. Applications are ranked based on various criteria and conservation concerns. The highest ranking application is considered for assistance to install best management practices.

ACSP-The major cause of water quality problems in the area is non-point source pollution. Damage to our water resources comes from soil erosion, excessive fertilizer use, animal waste contamination, and improper use of agricultural chemicals. The Agriculture Cost Share Program helps address nonpoint source pollution.

AgWRAP-The Agricultural Water Resources Assistance Program was recently created in order to address water quantity issues. Producer concerns include water to be used for cropland irrigation, and livestock watering. Multiple best management practices are available to help producers increase their water use efficiency, availability and storage.

CREP-The Conservation Reserve Enhancement Program is available to protect environmentally sensitive cropland and marginal pasture land long term. This is accomplished through 10, 15, and 30 year conservation easements.

For more information on the services and how to apply come by our office, email Amanda Kirby at a.kirby@stanlycountync.gov or call 704-986-3059

USDA Non-Discrimination Policy

The United States Department of Agriculture (USDA) and the Stanly SWCD prohibits discrimination against its customers, employees and applicants for employment on the basis of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, or all or part of an individual’s income is derived from any public assistance program, or protected genetic information in employment or in any program or activity conducted or funded by the Department. Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communication at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, USDA, Washington, D.C. 20250 or call 1-800-245-6340 (Voice) or (202) 720-1127 (TDD).
Erosion Control Materials Available

Landowners and producers are encouraged to take advantage of another service provided by the Stanly SWCD. Erosion control materials are now in stock and available for purchase.

“Erosion control blankets are effective in controlling erosion on slopes and stabilizing soils long enough for re-vegetation seeding to establish on the site. They are designed to be used on gradual to steep slopes, with low to high velocity flow channels, and are available for both short term biodegradable applications, and long-term soil stabilization.” protecherosionsupply.com

8’ x 112.5’ Double Net Straw Blanket $28.00 each

4’ x 180’ Single Net Excelsior Blanket $38.00 each

6” x 1” 11 gauge Sod Staples $30.00 box of 1000

“Our wattles are 100% Certified Weed Free Wheat Straw bound into a tight tubular roll. When wattles are placed on the face of slopes, they intercept storm water runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff. By interrupting the length of a slope, the wattle can also reduce erosion. Wattles are designed to stop sediment and other debris from entering retention ponds, lakes and other water bodies.” Protecherosionsupply.com

12” x 10’ Straw Wattle $25 each

24” Wood Stake 1.5” x 1.5” $16/bundle of 25 or 75¢ each
USDA Offers Disaster Assistance for Farmers Hurt by 2018, 2019 Disasters

Agricultural producers affected by natural disasters in 2018 and 2019, including Hurricane Dorian, can apply through the Wildfire and Hurricane Indemnity Program Plus (WHIP+). Sign-up for this U.S. Department of Agriculture (USDA) program began Sept. 11.

WHIP+ Eligibility

WHIP+ will be available for eligible producers who have suffered eligible losses of certain crops, trees, bushes or vines in counties with a Presidential Emergency Disaster Declaration or a Secretarial Disaster Designation (primary counties only). Disaster losses must have been a result of hurricanes, floods, tornados, typhoons, volcanic activity, snowstorms or wildfires that occurred in 2018 or 2019. Also, producers in counties that did not receive a disaster declaration or designation may still apply for WHIP+ but must provide supporting documentation to establish that the crops were directly affected by a qualifying disaster loss.

A list of counties that received qualifying disaster declarations and designations is available at farmers.gov/recover/whip-plus. Because grazing and livestock losses, other than milk losses, are covered by other disaster recovery programs offered through FSA, those losses are not eligible for WHIP+.

Eligible crops include those for which federal crop insurance or Noninsured Crop Disaster Assistance Program (NAP) coverage is available, excluding crops intended for grazing. A list of crops covered by crop insurance is available through USDA’s Risk Management Agency (RMA) Actuarial Information Browser at webapp.rma.usda.gov/apps/actuarialinformationbrowser.

The WHIP+ payment factor ranges from 75 percent to 95 percent, depending on the level of crop insurance coverage or NAP coverage that a producer obtained for the crop. Producers who did not insure their crops in 2018 or 2019 will receive 70 percent of the expected value of the crop. Insured crops (either crop insurance or NAP coverage) will receive between 75 percent and 95 percent of expected value; those who purchased the highest levels of coverage will receive 95-percent of the expected value.

At the time of sign-up, producers will be asked to provide verifiable and reliable production records. If a producer is unable to provide production records, WHIP+ payments will be determined based on the lower of either the actual loss certified by the producer and determined acceptable by FSA or the county expected yield and county disaster yield. The county disaster yield is the production that a producer would have been expected to make based on the eligible disaster conditions in the county.

WHIP+ payments for 2018 disasters will be eligible for 100 percent of their calculated value. WHIP+ payments for 2019 disasters will be limited to an initial 50 percent of their calculated value, with an opportunity to receive up to the remaining 50 percent after January 1, 2020, if sufficient funding remains.

Both insured and uninsured producers are eligible to apply for WHIP+. But all producers receiving WHIP+ payments will be required to purchase crop insurance or NAP, at the 60 percent coverage level or higher, for the next two available, consecutive crop years after the crop year for which WHIP+ payments were paid. Producers who fail to purchase crop insurance for the next two applicable, consecutive years will be required to pay back the WHIP+ payment.

Additional information about WHIP+ program eligibility and payment limitations can be found at farmers.gov/recover or by contacting your local USDA Service Center.
Additional Loss Coverage

The Milk Loss Program will provide payments to eligible dairy operations for milk that was dumped or removed without compensation from the commercial milk market because of a qualifying 2018 and 2019 natural disaster. Producers who suffered losses of harvested commodities, including hay, stored in on-farm structures in 2018 and 2019 will receive assistance through the On-Farm Storage Loss Program.

Additionally, producers with trees, bushes or vines can receive both cost-share assistance through FSA’s Tree Assistance Program (TAP) for the cost of replanting and rehabilitating eligible trees and WHIP+ will provide payments based on the loss value of the tree, bush or vine itself. Therefore, eligible producers may receive both a TAP and a 2017 WHIP or WHIP+ payment for the same acreage. In addition, TAP policy has been updated to assist eligible orchardists or nursery tree growers of pecan trees with a tree mortality rate that exceeds 7.5 percent (adjusted for normal mortality) but is less than 15 percent (adjusted for normal mortality) for losses incurred during 2018.

Prevented Planting

Agricultural producers faced significant challenges planting crops in 2019 in many parts of the country. All producers with flooding or excess moisture-related prevented planting insurance claims in calendar year 2019 will receive a prevented planting supplemental disaster (“bonus”) payment equal to 10 percent of their prevented planting indemnity, plus an additional 5 percent will be provided to those who purchased harvest price option coverage.

As under 2017 WHIP, WHIP+ will provide prevented planting assistance to uninsured producers, NAP producers and producers who may have been prevented from planting an insured crop in the 2018 crop year and those 2019 crops that had a final planting date prior to January 1, 2019.

For more information on FSA disaster assistance programs, please contact your local USDA service center or visit farmers.gov/recover. For all available USDA disaster assistance programs, go to USDA’s disaster resources website.

Dates to Remember...

The AgriCivic Center will be closed the following days:

- November 11        Veterans Day
- November 28-29      Thanksgiving Holidays
- December 24-26      Christmas Holidays
- January 1           New Year’s Day
USDA Opens Signup for Market Facilitation Program

Enrollment Open through Dec. 6

Signup is ongoing for the Market Facilitation Program (MFP), a U.S. Department of Agriculture (USDA) program to assist farmers who continue to suffer from damages because of unjustified trade retaliation from foreign nations. Through MFP, USDA will provide up to $14.5 billion in direct payments to impacted producers, part of a broader trade relief package announced in late July. The sign-up period runs through Dec. 6, 2019.

MFP payments will be made to producers of certain non-specialty and specialty crops as well as dairy and hog producers.

Non-Specialty Crops

MFP payments will be made to producers of alfalfa hay, barley, canola, corn, crambe, dried beans, dry peas, extra-long staple cotton, flaxseed, lentils, long grain and medium grain rice, millet, mustard seed, oats, peanuts, rapeseed, rye, safflower, sesame seed, small and large chickpeas, sorghum, soybeans, sunflower seed, temperate japonica rice, triticale, upland cotton, and wheat.

MFP assistance for 2019 crops is based on a single county payment rate multiplied by a farm’s total plantings to the MFP-eligible crops in aggregate in 2019. Those per acre payments are not dependent on which of those crops are planted in 2019. A producer’s total payment-eligible plantings cannot exceed total 2018 plantings. View payment rates by county.

Dairy and Hogs

Dairy producers who were in business as of June 1, 2019, will receive a per hundredweight payment on production history, and hog producers will receive a payment based on the number of live hogs owned on a day selected by the producer between April 1 and May 15, 2019.

Specialty Crops

MFP payments will also be made to producers of almonds, cranberries, cultivated ginseng, fresh grapes, fresh sweet cherries, hazelnuts, macadamia nuts, pecans, pistachios, and walnuts. Each specialty crop will receive a payment based on 2019 acres of fruit or nut bearing plants, or in the case of ginseng, based on harvested acres in 2019.

More Information

Payments will be made in up to three tranches, with the second and third tranches evaluated as market conditions and trade opportunities dictate. If conditions warrant, the second and third tranches will be made in November and early January.

MFP payments are limited to a combined $250,000 for non-specialty crops per person or legal entity. MFP payments are also limited to a combined $250,000 for dairy and hog producers and a combined $250,000 for specialty crop producers. However, no applicant can receive more than $500,000. Eligible applicants must also have an average adjusted gross income (AGI) for tax years 2015, 2016, and 2017 of less than $900,000, or 75 percent of the person’s or legal entity’s average AGI for those tax years must have been derived from farming and ranching. Applicants must also comply with the provisions of the Highly Erodible Land and Wetland Conservation regulations.

More information can be found on farmers.gov/mfp, including payment information and a program application.
The Agricultural Cost Share Program was created to address nonpoint source pollution on agricultural land. This program provides technical and financial assistance to landowners to install practices that improve water quality. Landowners/producers have the opportunity to receive up to 75% cost reimbursement for implemented conservation practices. See below for common management practices.

What is Cost Share?

Livestock Exclusion
Permanently exclude pasture grazing livestock from streams and critical areas. This will reduce erosion and improve water quality. Cost share components may include exclusion fencing, water supply well, pipeline, permitting costs, and livestock watering tanks.

Streambank Protection
Stabilize and protect the bank of streams through the use of vegetation. This practice reduces loss of land and improves water quality. Cost share components may include vegetation establishment, grading, and stream crossing.

Manure Composting Facility
A composting facility is used for the biological treatment, stabilization and environmentally safe storage of organic water material from poultry and livestock. This practice minimizes impacts on water quality and produces a material that can be used as fertilizer. Cost share components may include lumber, roof and grading.

Cover Crop Incentive
Cover crops include grasses, legumes, or small grains which are grown seasonally in between cash crops and for less than one year. This practice reduces wind and water erosion, cycles nutrients, increases organic matter, improves infiltration, improves soil quality, and sequesters carbon. This is an incentive practices, so cost share is paid in equal annual payments for 3 years.

Cropland Conversion
Cropland Conversion is used to establish and maintain a conservation cover of grass, trees, or wildlife plantings on land that had previously been used for crop production. This practice reduces erosion and sedimentation. Cost share components may include seed, lime, fertilizer, and seedbed prep.

For a full list of Cost Share Practices and additional requirements, visit:

http://www.ncagr.gov/SWC/costshareprograms/ACSP/BMPs.html
Mission Statement

The mission of Stanly Soil and Water Conservation District is to provide education, information and technical assistance to citizens of Stanly County for the conservation of our soil and water resources.