Soil & Water news

SPRING 2021

STOKES SOIL & WATER CONSERVATION DISTRICT (SWCD)
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IN THIS NEWSLETTER...

STOKES SOIL & WATER CONSERVATION DISTRICT
Yours for Life

Welcome McKayla Sawyers – New Soil/Watershed Conservationist

Stokes County Soil & Water Conservation District has welcomed a new District Soil/Watershed Conservationist, McKayla Sawyers. McKayla, who is originally from Stokes County where her family owns a poultry and commercial beef cattle operation, has returned to the area after obtaining degrees from NC State University. She holds a Bachelor's of Science degree in Animal Science with a minor in Agriculture Business Management along with a Master's of Science degree concentrating in Animal Science. McKayla's position as the Soil/Watershed Conservationist is to facilitate cost share programs that are in place to promote soil and water conservation throughout Stokes County; as well as maintain the department's sod drill that is rented out to county residents. Cost share programs are offered yearly for those in the county that qualify and who would like to establish Best Management Practices (BMP's) to improve soil and water conservation on their property, leased agricultural property, or locations used by the community.

These are a few of the programs and services that we offer:

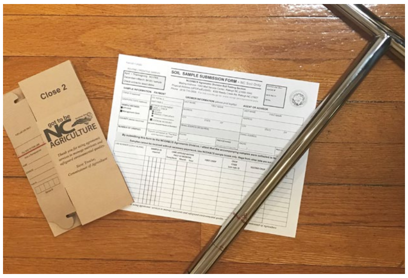
- The Agricultural Water Resources Assistance Program (AgWRAP) offers financial assistance when installing water supply wells for agricultural purposes and micro-irrigation system conversion.
- The North Carolina Agricultural Cost Share Program (ACSP) helps to address nonpoint pollution in water resources that may come from soil erosion, animal waste contamination, and excessive fertilizer use. Funds are available for many practices with the most popular being exclusion of livestock from streams, installing livestock watering facilities, livestock stream crossings, and cropland conversion to forage sources.
- Stokes County has a Voluntary Agricultural District (VAD) Program that enhances the identity of the agricultural community by encouraging the voluntary preservation and protection of farmland from non-farm development.
- The Soil & Water Conservation office offers rental of our no-till sod drill for Stokes County residents. For more information on this service, please contact the office.

You may find more information about programs and services that our office can provide by visiting our website www.stokesswcd.org or calling the office at (336)-593-2490. If you would like to contact McKayla Sawyers directly, you may call the office or email her at msawyers@stokesswcd.net ♦

IMPORTANCE OF MONITORING SOIL HEALTH & FERTILITY

Soil health and fertility is an important topic that is sometimes put on the back burner until there is an issue that has affected profits or livestock efficiency. Soil fertility can be determined by many factors including soil type, management, crop, yields, year, and location. With so many determining factors, it is important to have a plan for maintaining soil fertilization and health which includes being familiar with some helpful tools to do this.

3 Methods to Determine if your Crops Need Fertilization:



1. Soil Analysis to verify if the soil can support the plant needs
2. Visual Diagnosis of nutrient deficiencies in plants
3. Plant Analysis to verify the nutrition status of the plant ♦

SOIL SAMPLING

Soil sampling is a useful tool that can allow someone to make targeted decisions on the amounts of lime and fertilizer that they will apply to areas to reach optimal growing potential. Lucky for us in North Carolina, the Department of Agriculture has an Agronomic Division that has the capabilities to test our soil samples. But wait… there is even better news! You can get your soil samples tested for FREE during their slower months of the year which are usually between April to Thanksgiving. You will just need to properly collect, identify, and ship the samples to the lab in Raleigh to get your valued results. For sampling during the busy time of the year between Thanksgiving and April, the fee is $4 per sample. With the soil types in our area, it is recommended that soil samples are completed every 3-4 years so that more accurate amounts of fertilizer and lime can be applied. This can save money, time, and frustration in the long run. Samples can be taken 3-6 months prior to planting on the area so that the recommendations from the results can be used for the planting season.

- **Please contact our office if you would like more information on soil sampling or would like a representative from our office to help you with soil sampling methods. ♦**

USING VISUAL DIAGNOSIS TOOLS TO DETERMINE SOIL FERTILITY & HEALTH

Visual diagnosis to determine if there is a fertilization need can be a useful tool to get an idea if there is a need of specific nutrients. One visual cue of soil fertilization need is the presence of broomstraw/broomsedge. The presence of broomstraw indicates that the soil most likely has a lower pH and low fertility. Fields with broomstraw can be deficient in phosphorus (P), nitrogen (N), calcium carbonate (lime), and possibly potassium (K; component of potash). Presence of broomstraw can also mean that pastures have been overgrazed in addition to lacking nutrients. Although broomstraw is technically a perennial grass, it is undesirable and considered a "weed" by many because of the lack of usefulness. Broomstraw has low nutritive value, which means that it is <u>not</u> a very suitable forage for livestock. Pastures and hay fields lose productivity and valuable forage as the amount of broomstraw increases or persists. Controlling the amount of broomstraw may take time along with pasture and hay field management. Suggested techniques to decrease broomstraw include applications of herbicides with weed wiper equipment using glyphosate or spot spraying during the time when broomstraw is actively growing. The seeds of broomstraw are wind-dispersed so it is important to control what is already in the fields so that it does not reseed itself and increase in density. Applying the recommended fertilizer and lime from a soil analysis result can help planted, desirable forages or crops grow and help to dilute the pesky "weed" so that you can have more productive and nutritious sources of forage for livestock. ♦

National Conservation Planning Partnership (NCPP) Producer Survey – The NCPP is conducting a survey for farmers to address needs for conservation planning and to design improved templates for conservation plans. Go to https://www.nationalconservationplanningpartnership.com/ to participate in the survey. ♦

NO–TILL SOD DRILL AVAILABLE FOR LEASE

Winter maintenance has been completed on the sod drill and it is now available for leasing!
Please call or email our office to schedule your lease dates.

Sod Drill Requirements:

- 40 horsepower tractor minimum with hydraulics
- Open hole pin hitch
- Does NOT work on disked or plowed ground

Drill Size:

- 8 ft wide with a seeding width of 5.3 ft
- Weighs 3,000 lbs.

Rental Rate:

- $10 per acre ($50 minimum) ♦

MAKING FORAGE PLANTING DECISIONS

Helpful site created by NC State Extension that can help make your forage planting decisions!
https://apps.ces.ncsu.edu/forages-planting-guide/index.php

You will find a few warm season forages and the best time to plant them in the Piedmont area in the table below (Table 1). Please keep in mind that soil conditions and weather plays a large role in successful forage crops. Also be mindful that some forages can contain toxic properties at certain growth or environmental stages so research the grazing recommendations before grazing (ex: prussic acid in sorghum sudan).

Table 1: Warm Season Annuals

Crop	Seeding Rate for Drill	Best Dates to Plant
Crabgrass	5-7 lb./acre	May 1- May 31
Millet, Pearl	15-20 lb./acre	May 1 – May 31
Sorghum – Sudan/Sudangrass	20-30 lb./acre	May 1 – May 31

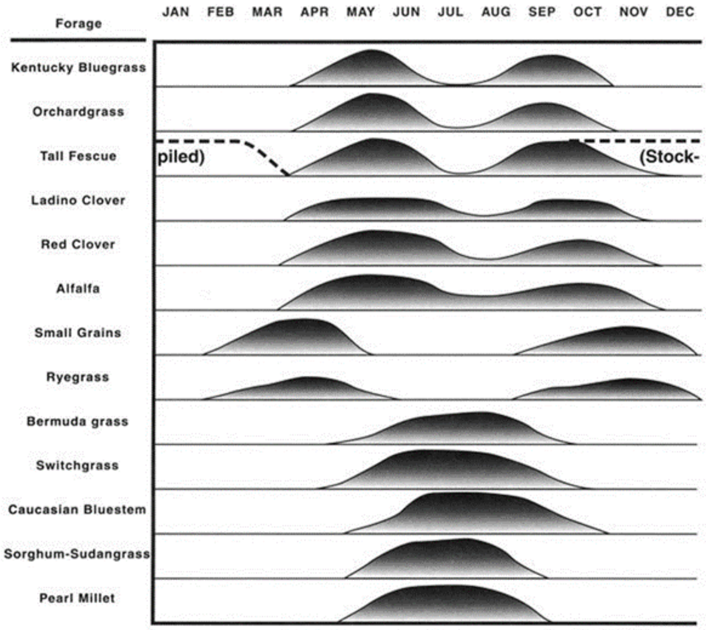


Figure 1

Adapted from Controlled Grazing of Virginia's Pastures, Publication 418-012 Growth Curves for Common Forages; https://www.pubs.ext.vt.edu/418/418-012/418-012.html

***Figure 1**: Displays the growth curves of several types of forages. Note that cool season forages have 2 growth curves and warm season forages have 1 growth curve a year during the warmer, summer months of the year.* ♦

Crabgrass

Source: Southeast AgriSeeds

Dwarf Sorghum Sudan

Source: Southeast AgriSeeds

WANT TO BE ADDED TO OUR EMAIL LIST?

You can get newsletters and Stokes SWCD information by email or mail. Please let us know if you prefer email or if you know of someone who would like to be added to our list. ♦

Recommendations for Stokes County pasture renovation fertilizer and lime application rates for fescue:

RATES LISTED ARE PER ACRE
(plant fescue in fall)

- 400-600 LB. 10-10-10 **or** 300 LB. 17-17-17
- 2 Ton Lime (if no soil test done)

STUDENTS WIN LOCAL CONTESTS, ADVANCE TO REGIONAL COMPETITION

On December 11th the Stokes SWCD held its annual county-wide poster contest (for students in grades 3-6), essay contest (for students in 6th grade), the 6th grade slideshow contest, and the 9th grade computerized poster contest. The contest theme was "We All Live In A Watershed". Congratulations to the following students who placed; their entries will advance to the regional competition being held on March 11 in Alexander Co.:

3rd GRADE POSTER CONTEST
Madison Marshall – 1st Place (Lawsonville Elem.)

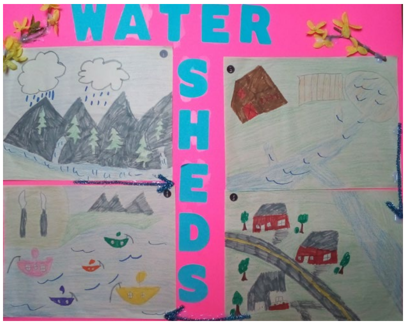
4th GRADE POSTER CONTEST
Jax Smith – 1st Place (King Elem.)
Dakota Murphy – 2nd Place (Germanton Elem.)

5th GRADE POSTER CONTEST
Seth Waller – 1st Place (Germanton Elem.)
Hailey Fulp – 2nd Place (King Elem.)

6th GRADE POSTER CONTEST
Jason Walsh – 1st Place (SEMS)
Natalie Wall – 2nd Place (SEMS)

6th GRADE ESSAY CONTEST
Jason Walsh – 1st Place (SEMS)
Reid Tilley – 2nd Place (SEMS)

6th GRADE SLIDESHOW CONTEST
Grayson Hicks – 1st Place (SEMS)



1st Place 3rd Grade Poster

1st Place 4th Grade Poster

1st Place 5th Grade Poster

1st Place 6th Grade Poster

WELCOME NEW BOARD MEMBER

The Stokes SWCD would like to welcome new board member, Bob Lindsay. Bob won his seat on the Soil & Water Board in the November 3, 2020 election. He owns and operates a poultry operation in the King area. Congratulations Bob, we look forward to working with you! ♦

THESE 4 BASIC PRINCIPLES CAN BE USED TO IMPROVE SOIL HEALTH

1. Keep the soil covered as much as possible
2. Disturb the soil as little as possible
3. Keep plants growing throughout the year to feed the soil
4. Diversify as much as possible using crop rotation and cover crops ♦

unlock the SECRETS IN THE SOIL

Source: NRCS Unlock the Secrets in the Soil

COST SHARE PROGRAMS AVAILABLE

If you have erosion problems or water quality issues on your farm, you may be eligible to receive cost share assistance through the NC Agriculture Cost Share Program, the NC Agricultural Water Resources Assistance Program, the Dan River 319 Grant Program, or the Environmental Quality Incentives Program. These voluntary programs have proven successful in addressing agricultural non-point source pollution problems. Eligible participants may receive up to 50-75% cost assistance on practices such as riparian buffer restoration, excluding livestock from streams or ponds, installing alternative watering systems for livestock, heavy use area protection, converting cropland to grass or trees, and long term no-till planting to name a few. Funding for these practices are allocated to our office once a year (in August), so start planning now if you have a need for approved best management practices on your farm. If you are interested in applying for either of these programs, please call the Stokes SWCD office at 336-593-2490 for an application and program information. Approval of applicants are based on highest need of water quality improvement. <u>Contracts must receive final approval before practices are installed</u>.