

STOKES SOIL & WATER CONSERVATION DISTRICT (SWCD)

PO BOX 98 • DANBURY, NC 27016

PHONE 336.593.2490 • FAX 336.593.4010 • www.stokesswcd.org

IN THIS NEWSLETTER...

Featured Best Management Practices.....Page 1

NC Cost Share ProgramsPage 1

Grazing Management & Soil Health.....Page 2

Soil SamplingPage 2

Grazing Terms.....Page 2

No-Till Sod Drill Available for Lease Page 3

Making Forage Planting Decisions Page 3

Native Warm-Season Grasses..... Page 3

SWCD Contest WinnersPage 4

5th grade Environmental Awareness Days..... Page 4

Student Conservation Workshop Recipient Page 4

Email List.....Page 4



FEATURED BEST MANAGEMENT PRACTICES

Stream Exclusion Fencing

Excludes livestock from all sources of surface water in pasture and provides a stream buffer for better filtration of water that enters the sources.



Livestock Pipeline

Underground pipe used to distribute water from well to automatic water tanks.

Automatic Water Tanks with Heavy Use Area

Automatic water tanks can be placed in locations that will make a rotational grazing system easier. The heavy use area surrounding the water tanks help to stabilize the area. ♦



NORTH CAROLINA COST SHARE PROGRAMS

The Stokes Soil & Water Conservation District is currently seeking interested applicants for cost share programs. The practices listed above were installed using funding from the NC Agriculture Cost Share Program (ACSP). There are several best management practices available in the program that benefit farmers in different operations including crops and livestock. In order to qualify for the program, the operation must be in current agriculture use and have at least three years of consecutive agriculture use leading up to applying.

The North Carolina Agriculture Water Resources Program (AgWRAP) addresses a need for water for agriculture operations including well installation. Operations need to be in existence for at least one year to qualify for this program.

The Community Conservation Assistance Program (CCAP) serves landowners of urban, suburban, and non-agriculture areas including schools, businesses, and parks.

Contracted cooperators can receive up to 75% of the cost of practice installation based on a predetermined average cost list. Interested applicants may contact our office for more information. ♦

DISTRICT BOARD

- James Booth, *Chairman*
- Marvin Cavanaugh, *Vice Chairman*
- Johnny East, *Secretary/Treasurer*
- Dowell Lester, *Member*
- Bob Lindsay, *Member*

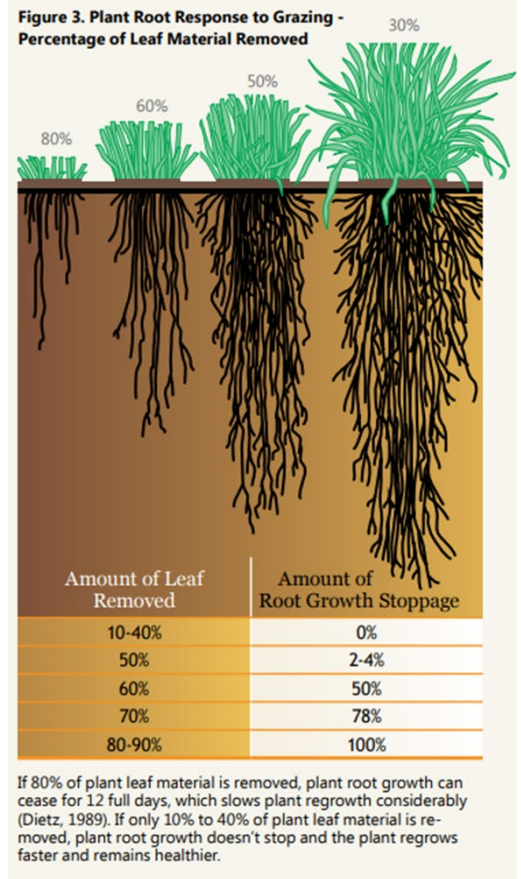
STAFF

- Janice Pack, *Soil & Water Conservation Director*
- McKayla Sawyers, *District Soil/Watershed Conservationist*
- Roger Toledo, *NRCS Supervisory Soil Conservationist*

GRAZING MANAGEMENT & SOIL HEALTH

Livestock grazing management and forage management play a large role in soil health. No matter the species of livestock that you may have, their grazing patterns can either make or break a livestock system. Forage establishment, harvest, fertilization, and reseeding or renovation are expensive and time-consuming aspects of farming that do not need to be last minute thoughts. Livestock and farming systems in general warrant an inclusive thought process. For example, only considering genetics of any livestock that you have will not ensure a healthy, producing animal if you do not provide sufficient nutrition and health management.

The health of your soil and the soil ecosystem are directly related to pasture management techniques. Ideally, pastures will have a sufficient covering of forage throughout the year and will not be overgrazed. The capacity of the soil to function can determine capture, storage, and redistribution of water, along with plant growth and the cycling of plant nutrients. Areas that are stressed continuously will be susceptible to erosion, unwanted species growth (weeds!), difficulty with desired regrowth and natural reseeding, and a variety of other possible issues. About once a year, one-third of roots die and must be replaced. The amount of leaf volume that is removed from plants has a direct effect on the growth of new roots. When too much leaf growth is removed, the energy of the plant goes into making new leaf growth and roots are not replaced. The cycle of roots not growing will lead to the plant dying. Managing plants, their root systems, and the soil health is key to increased yields and a higher quality forage. ♦



Source: NRCS Grazing Management & Soil Health, 2016

4 BASIC KEYS TO GRAZING MANAGEMENT

1. Stocking Rate
2. Livestock Rotation
3. Utilization Rate
4. Plant Rest and Recovery

Source: NRCS Grazing Management & Soil Health, 2016

SOIL SAMPLING

- Make targeted decisions on the amounts of lime and fertilizer required to reach optimal growing potential
- FREE April to Thanksgiving at NCD Agronomic Lab - \$4 per sample between Thanksgiving and April
- Recommended that soil samples are completed every 3-4 years
- Take samples 3-6 months prior to planting

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. ♦

GRAZING MANAGEMENT RELATED TERMS

Stocking Rate: Number of animals on a given area of land over a certain period of time. Generally calculated in Animal days per acre (AD/Ac)

Stocking Density: Number of animals grazing a specific unit of area at a single point in time. Pounds of animals per acre.

Prescribed Grazing: Concept of managing the harvest of vegetation with grazing and/or browsing animals with the intent to achieve specific ecological, economic, and management objectives. Provides start and stop grazing heights depending on forage and time of year.

Continuous Grazing: Allowing livestock unrestricted, continuous access to pasture. *Not preferred!*

Rotational Grazing: Moving livestock around to different portions of pasture to allow areas to rest. Helps prevent overgrazing if utilized properly.

Regenerative Agriculture: Process of restoring degraded soils using practices based on ecological principles and working with nature. The practices promote building soil health, adding organic matter and biodiversity, decreased use of chemical inputs such as herbicides and commercial fertilizer, cleaner air and water, and enhanced wildlife habitat; to name a few. Includes concept of adaptive grazing. ♦

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 Native Warm-Season Grasses 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 .

Table 1: Native Warm-Season Grasses

| Crop | Seeding Rate for Drill | Best Dates to Plant |
|--------------|------------------------|---------------------|
| Big Bluestem | 8-10 lb./acre | May 10 - June 1 |
| Indiangrass | 8-10 lb./acre | May 10 - June 1 |
| Switchgrass | 6-10 lb./acre | May 1 – June 1 |

Percent of Total Growth by Month

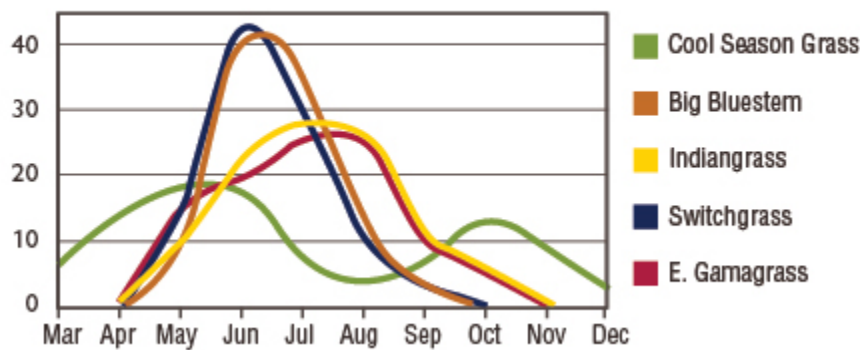


Figure 1

Natives for Forage. Natives for forage - Hamilton Native Outpost. (n.d.). Retrieved March 9, 2022, from <https://www.hamiltonnativeoutpost.com/forage.php>

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

NATIVE WARM-SEASON GRASSES

- Can be used for wildlife habitat, livestock grazing, or hay (depending on variety)
- Small seeds with slower germination rate – can use no-till sod drill with “fluffy seed box” to plant
- Perennials
- Requires 3 growing seasons to become fully established
 - Cannot graze or harvest until second season or possibly third season
- Can be established with little fertilizer and lime input
- Weed control is essential before and during establishment
- Few herbicides labeled for use on NWSG fields for weeds
- Drought tolerant once established
- Rotationally burn or mow every 3-5 years for best management

Figure 2



Figure 2. Prescribed fire rejuvenates NWSG growth and enhances the structure at ground level for several wildlife species. – UT Extension

Figure 3



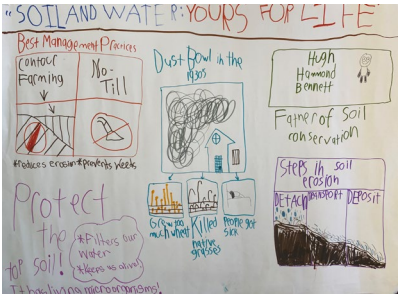
Figure 3. Big bluestem can be recognized by its “turkey foot” seedhead, which comes out in late June through July. – UT Extension

STUDENTS WIN LOCAL CONTESTS, ADVANCE TO REGIONAL COMPETITION

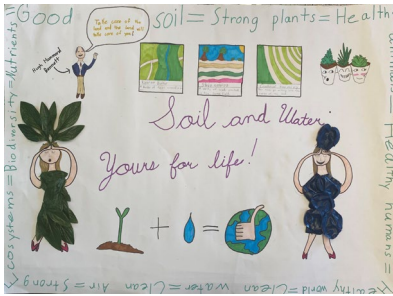
On November 5th, the Stokes SWCD held its annual county-wide poster contest (for grades 3-6), the 6th grade essay contest, the 6th grade slideshow contest, and the 9th grade computerized poster contest. The contest theme was "Soil & Water...Yours For Life". Congratulations to the following students who placed in the County competition and also to those who placed in the Regional competition held on March 10th in Alleghany County. The Regional competition included entries from 13 counties across northwest North Carolina.

3rd GRADE POSTER CONTEST

- Edison Mabe – 1st Place (Germanton Elem.)**
- Silas Bowden – 2nd Place (Germanton Elem.)**



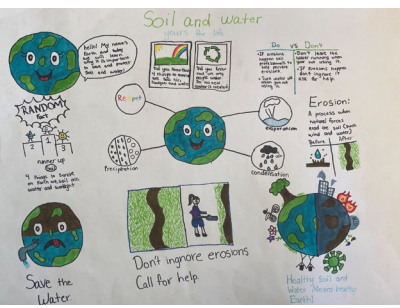
1st Place 3rd Grade Poster



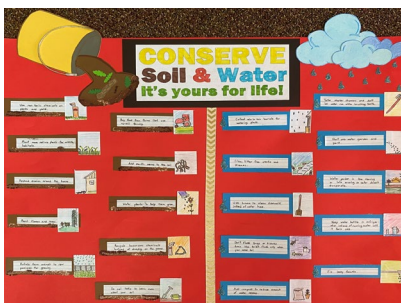
1st Place 4th Grade Poster

4th GRADE POSTER CONTEST

- Annie Mitchell – 1st Place (Germanton Elem.)**
- Adelynn Davis – 2nd Place (Lawsonville Elem.)**



1st Place 5th Grade Poster



1st Place 6th Grade Poster

5th GRADE POSTER CONTEST

- Adela Monita – 1st Place Co. (London Elem.) & 2nd Place in Regional Competition**
- Magaly Maldonado – 2nd Place (London Elem.)**

6th GRADE POSTER CONTEST

- Tanner Thompson – 1st Place Co. (SEMS) & 3rd Place in Regional Competition**

6th GRADE ESSAY CONTEST

- Seth Waller – 1st Place (SEMS)**

6th GRADE SLIDESHOW CONTEST

- Gireani Alvarez – 1st Place Co. (PGMS) & 3rd Place in Regional Competition**
- Adalyn James – 2nd Place (PGMS)**

9th GRADE COMPUTER DESIGNED POSTER CONTEST

- Carlee Grinnell – 1st Place Co. (WSHS) & 3rd Place in Regional Competition**
- Julia Edwards – 2nd Place (WSHS)**

ENVIRONMENTAL AWARENESS DAYS FOR 5TH GRADERS SCHEDULED IN APRIL

On April 26, 27, & 28 the Stokes Soil & Water Conservation District will host Environmental Awareness Days for all 5th grade students in Stokes County at Hanging Rock State Park. The Stokes SWCD has offered this program to students for over 30 years. Each day, students will participate in 8 mini-workshops set-up throughout the park as they travel from station to station to learn about current environmental issues that correlate with the Common Core Essential Standards for 5th grade science. ♦

SSHS STUDENT SELECTED TO ATTEND RESOURCE CONSERVATION WORKSHOP THIS SUMMER

Hunter Smothers, a sophomore at South Stokes HS, has been selected from an application process to represent Stokes County this summer at the annual Resource Conservation Workshop (RCW) held at NC State University. Hunter is involved with the agriculture program at South Stokes and hopes to use this opportunity to gain knowledge and skills in techniques of sound management of our natural resources that he can apply and share with others.



Hunter Smothers

The RCW is a week-long workshop for high school students to spend time in the field learning about our natural resources and their management in today's environment. Participants receive guidance from natural resource professionals, are eligible for cash awards & scholarship money, and so much more. Topics of study include: Soil Characteristics & Conservation, Wildlife & Fisheries Management, Forest Management, Nonagricultural Uses of Soils, Water Quality & Watershed Management. Congratulations Hunter! ♦

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. ♦