



# DILLON COUNTY SOIL AND WATER BI-ANNUAL NEWS LETTER



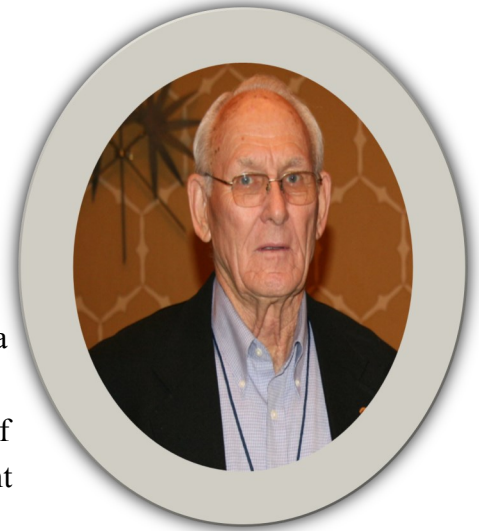
Bi-Annual Report - July—December 2014

January 2015



## In Memory of Retired Commissioner Silas Franklin Stephens III

Silas Franklin Stephens III, 82, went to be with the Lord on December 24, 2014. The son of Pearl Hatchell Stephens and Silas Franklin Stephens, Jr., Frank was a life-long resident of the Bermuda community in Dillon County and a successful farmer and conservationist of his family's farm. He was a graduate of Lake View High School and studied Animal Husbandry at Clemson University. Married for 60 years to Betsy Clarice Bullock of Fairmont, NC, he enjoyed serving his community in a variety of ways. He was a deacon at Bermuda Baptist Church and First Baptist Church, Dillon and served on numerous committees at both churches. He served on the board of Production Credit Association for more than 10 years. He was past president of the Dillon County Farm Bureau. He gave 37 years of service to Dillon Soil & Water Conservation District, serving as board chairman for 25 years.



He also served on the Lake View District School Board for many years. His love of tractors and restoration led him to join the Mullins Tractor Club where he and Betsy enjoyed time with others who shared his passion for preservation. In addition to his loving wife, Betsy, Frank is survived by 3 children and their families: Mr. and Mrs. Silas Franklin Stephens IV (Sandy) of Dillon, SC; Dr. Charlotte Stephens of Anderson, SC; and Mr. and Mrs. Arthur William Andrews (Rosa) of Smithfield, NC. Frank and Betsy had a fourth child, Deborah Bullock Stephens, who went to heaven as an infant. Frank and Betsy have five granddaughters: Mr. and Mrs. Matt Buckner (Kristin) of Holly Springs, NC; Mr. and Mrs. Mark Morris (Lia) of Clayton, NC; Joya Sellers and Jamie Sellers of Anderson, SC; Frances Stephens of Dillon, SC; and two great grandsons, Finn Morris and Bowen Morris. Frank is also survived by a brother, Robert Lorin "Skeet" Stephens, also of the Bermuda Community. A memorial service was held on Friday, December 26, at 3pm at First Baptist Church, 400 North 4th Avenue, Dillon, SC.

### ***Join the Carolina Cover Crop Connection!***

The Carolina Cover Crop Connection is an online forum for cover croppers to share experiences and information. With 118 members and growing, this Facebook group is an extension of a soil health initiative led by Dr. Buz Kloot (USC) and the Marlboro, Dillon, and Richland SWCDs through Conservation Innovation Grant funding from the USDA-Natural Resources Conservation Service (NRCS).

**<https://www.facebook.com/groups/carolinacovercropconnection/>**



# Dillon County Setting The Stage For Soil Health Movement In South Carolina

It was the buzz all around the state ~ Ray Archuleta is going to be in Dillon County!! To those of you that are not in the world of agriculture may not appreciate the excitement but that should not stop you from reading any further. You have to remember that it WILL get you excited when you realize that having healthy and rich soil will affect you at the cash register. If a producer can cut costs on the fertilizer, pesticide and herbicides and get a higher yield and better quality of goods on his fields that will be reflected in the price YOU as a consumer will pay at the grocery store!

On August 5<sup>th</sup> the Dillon Wellness Center was the venue for approximately 75 producers from Dillon County and across the state to come and hear nationally known Ray Archuleta who is a Conservation Agronomist at the NRCS East National Technology Center, in Greensboro, North Carolina and teaches soil health and the principles of agro-ecology throughout the country. The meeting began with Ray performing demonstrations to let others see what healthy soil looks like.

The first was a demonstration called the “Slake Test” which involves taking a clod (or aggregate) of dirt from a field that has been tilled and another from a field that has been NOT been tilled. I did not know what “slaking” was until about a year ago so many of you may be asking what is Slaking? It is the breakdown of large, air-dry soil aggregates into smaller sized when they are suddenly immersed in water. This occurs when aggregates are not strong enough to withstand internal stresses caused by rapid water uptake. **In laymen terms the clod of dirt will break apart when submerged in water!!** The test is an amazing demonstration that gives everyone a visual of how the tilled and untilled soil responds to the water which represents rainfall. If you would like to see one performed go to [www.youtube.com](http://www.youtube.com) and search for “slake soil test”.

The results of this test proved that the tilled soil quickly breaks apart while the untilled soil remains intact. Archuleta said “I used to think if I tilled the soil-fluffed it up- it would allow more water in. But that’s just not true. Tilling soil closes pore space and keeps rainfall from infiltrating. You’ll have pore space in your soil from top to bottom.” This confirms that tilled soil is a major cause for erosion and runoff into streams and rivers. Soil Health goes beyond the measuring degradation (erosion, compaction or contamination) it is also about having fertile soil and the way to achieve fertility is by the use of cover crops.



**Slake Test Results**

**Right – No Tilled Soil  
Left – Tilled and plowed Soil**



One of the primary uses of cover crops is to increase soil fertility. These types of cover crops are referred to as “green manure.” Cover crops can also improve soil quality by increasing soil organic levels through the input of cover crop biomass over time. Increased soil organic matter enhances soil structure as well as the water and nutrient holding and buffering capacity of soil and it can also lead to increased soil carbon sequestration. On August 5th CNN headlines read “Gulf of Mexico ‘dead zone’ is the size of Connecticut” and stated that scientists’ found an area of 5,052 square miles of “low oxygen water”. This was formed by nutrients that washed into the Gulf’s water through—largely agriculture fertilizer and wastewater coming down the Mississippi River. These boost algae blooms that suck up the oxygen in deep water and cause marine life to struggle to find oxygen to survive.

***"Our lakes are filled with conservation and nutrient management plans;  
they are not crystal clear with an understanding of soil health...  
we don't have a runoff problem; we have an infiltration problem."***

**-Ray Archuleta**

By reducing soil erosion, cover crops often also reduce both the rate and quantity of water that drains off the field, which would normally pose environmental risks to waterways and ecosystems downstream. Cover crop biomass acts as a physical barrier between rainfall and the soil surface, allowing raindrops to steadily trickle down through the soil which allows the moisture to remain in the soil for longer periods of time. The cover will also reduce the temperature of the soil by providing a “shade” for the soil underneath --- so “Discover the Cover”!!



## The Next Step in Understanding Healthy Soil Field to Classroom with Ray Archuleta (Second Round)

The Dillon Soil and Water District hosted a SECOND workshop and field day with Ray Archuleta in December!!! The fact that the district was able to get Ray one time was a surprise, but to secure him for a follow up event in Dillon was amazing. This meeting was open to only those that had attended the first meeting with Ray back in August. There were approximately 65 in attendance.

It gave those that had the “basic” understandings of the make up of healthy soils a chance to delve further in the science behind the soil and what tools are available to analyze, maintain and even enhance the health of the farmers fields.



Comparing pasture, forest and crop field soils was part of the field experience. One property that was tested was soil scent. An earthy smell is caused by actinobacteria.

We promoted the drill (no till) but not the context of soil health. No till **will not** work without cover crops; it's like living in a mansion and eating bologna everyday. Because you're preserving the house (crop residue) but not feeding the soil microbes. -Ray Archuleta

**Fun Fact:**  
Smelling healthy soil causes the brain to release serotonin—a natural antidepressant

Participants conducted infiltration and slake tests to better understand the impact tillage has on soil structure. Tilled soils contain less organic matter, are

more compacted, and allow less water infiltration than untilled cover-cropped soils.

There was also a representative from Center Seeds, a cover crop seed company and a cover cropper himself, Russell Hedrick. He spoke about his personal experience with increase in yield and production since he has been using cover crops in conjunction to no till.



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The event lasted until late in the afternoon and there was still more to learn! The day was filled with a surplus of information for those attending but also left those attending wanting more...so that means there will be another field to classroom event in the future for the district.

The excitement is building and we do not want to lose the momentum we have.

There were producers from North Carolina and as far away as Georgetown County attending this event.



**No Till Drill**



Need Equipment for Your Farm Needs?  
Call 843-774-5122 for more information



**Weed Wiper**

# How Much Fertilizer Do We Really Need

We live in exciting times where commercial farmers are discovering the hope of healthy soils and they are using less commercial fertilizer than they would have imagined.

This is a massive undertaking for all those involved but we feel confident that this will produce concrete evidence of how and what methods are required to get the correct amount (if any) fertilizer on your crops. If you will please take the time to read and view the video that within the link that is provided you will find out the details!!!

The goal is to work with Carl Coleman, farmer from Dillon, SC to test how low we can go with commercial fertilizer as he grows a wheat crop this fall. This will be good for the farmer, his neighbors and for the environment.

## Preparing the Plot

Carl and his bride Renee completed marking out the plots - they used a combination of GPS and a mower to run the boundaries between to plots and the two independent exper-

iments. The image you see here is of the latter, much broader boundary. If you look closely, you will see their flags that mark each plot next to where they mowed.

The cover crop of Sorghum Sudan, Buckwheat and Sunn Hemp got to about waist high here (planted a week later than the image on the main page), nevertheless, we anticipate a lot of above-ground N. Carl's labors cost him around a day and once can appreciate this more given he is busy harvesting cotton and soybeans.

This project needed money to happen and a request was put out on social media and the response was amazing!!! The project has been funded and is moving forward.

The results and analyses of these plots will provide information that will allow Carl to know how much fertilizer is needed and

Dr. Buz Kloot is the researcher on this project and he has become a great asset to Dillon County and we appreciate all his vigor and enthusiasm!

A field visit was done in late December and "Lab Notes" are available for the most up to date information on the plot



## **Coordinator's Corner** (update on my world events)



The excitement NEVER ends around here!!! The older we get the faster time goes but there is always something that comes along that makes you smile and realize you need to savor every moment and make every memory you can. This summer while being nosy and riding through the middle of Bikefest in Atlantic Beach with my granddaughter, Lily, who was in the back seat I enjoyed one of these moments.

The windows were down, the was radio on and she had her sunglasses on...There were cars and motorcycles all around us and as we were moving pretty slow through the line of traffic we were enjoying the day, when Lily says "I feel important"!! I looked back and said "Baby you are important" she then replied "No, Meme—I mean I feel important like I'm in a parade or something"!!! I know to some this may seem trivial but that is only if you do not have grandchildren yet! Everything is priceless when share your life with them...

## “Local Heroes—Your Hardworking Pollinators”

### Essay and Poster Contest Announced

Pollinators are a diverse and fascinating group of animals. In addition to their beauty, pollinators provide an important link in our environment by moving pollen between flowers and ensuring the growth of seeds and fruits.

The work of pollinators touches our lives every day through the food we eat. Even our seasons are marked by their work, The bloom of springtime meadows, summer berry picking, pumpkins in the fall.

Native bees are North America’s most important group of pollinators. Patches of flowers can be grown almost anywhere and will form an important food resource for bees.

- ◇ About 1,000 of all pollinators are vertebrates such as birds, bats, and small mammals.
- ◇ Most pollinators (about 200,000 species) are beneficial insects such as flies, beetles, wasps, ants, butterflies, moths, and bees.

#### The Essay Contest

All Dillon County 5<sup>th</sup> grade students have been given the opportunity to participate in a county wide essay contest. The purpose of this contest is to give students the experience of researching a topic dealing with **Pollinators** and to increase the knowledge of the subject and the conservation district throughout the county.



The winner from each class, and will receive \$25.00 gift card. The class room winners will judged and an overall winner will be announced. ALL participating teachers of classes that participate will receive \$25.00 gift card.

**The teacher and student that is the district winner will each receive \$50.00 cash.**

#### The Poster Contest

This contest is open to all 5K—3rd grade students who are attending public, private or home school in Dillon County.

A winner of each category will receive a \$25.00 gift card. All participating teachers will receive a \$25.00 gift card with the district winners, teacher and student will receive \$50.00 cash.

Information has been delivered to all county schools but if anyone would like information please contact the Dillon Soil & Water Conservation District’s office

#### *Interesting Facts*

- ◆ About 75% of all flowering plants need the help of animals to move their heavy pollen grains from plant to plant for fertilization
- ◆ Bees can fly at about 7 miles per hour, and they have to beat their wings 190 times per second to do it!!! WOW

## Arbor Day Celebrations

South Carolina celebrates Arbor Day on the first Friday in December every year. This year the date is December 5th, and the Soil & Water Conservation of Dillon County distributed Loblolly Pine seedlings to every over 500 4th graders in the county.

All of the seedlings were donated to the district to distribute by Bodenhamer Farms & Nursery in Rowland, NC. The conservation district was invited to come and speak to the 4th graders at the Dillon Christian School.

The students were told when, how and why Arbor Day began and why it continues today Each one of them were given a seedling to take home, plant and care for during the upcoming years. This will allow the students watch it grow through the years, but it will also help with the beautification of our county.

Arbor day marks the beginning of planting season in South Carolina.



Trees lend beauty to the SC landscape, cool us with shade, reduce air pollution, provides food and shelter for birds and wild animals, prevents soil erosion and filters noise.

The first Arbor Day ceremonies took place over a hundred years ago on the windswept prairies



**Bodenhamer**  
Farms & Nursery

# East Elementary 2nd Grade Classes

The district coordinator, Angela Baker spoke to the second grade classes at East Elementary about plants and the importance they have in our lives.

During the presentation Ms. Baker had a variety of plants for the students and taught about the different nutrients that plants need and how they receive them.

Several students participated in an activity where they pretended to be a tree. They had to have their “roots” planted firmly in the ground and they were then instructed to “pick up” their nutrients that were on the ground. This allowed the students to see how trees, when planted close together could not get the necessary nutrients because of other trees being too close. Each student received “The Adventures of Sammy Soil” booklet.



## Lake View Elementary Pollinator Lesson

On November 25th the Dillon Soil & Water District spoke to a group of 5th grade students at Lake View Elementary. The students were given information about pollination and the insects/animals that pollinate!

Many of them was involved in a hands on activity that helped them learn about the process of how our fruits, vegetables are produced through the pollination process. It was also very interesting for many of them to realize just how many insects/animals are pollinators!!



## Commissioners Re-elected In General Election

Keith Allen and Bruce “Sonny” Price were recently elected to serve a four year term as Soil & Water Conservation District Commissioners.

Keith Allen was re-elected after faithfully serving the last four years he was elected

Sonny Price was appointed to the office of commissioner when Jamie Smith retired in 2013 and Carl Coleman was nominated to fill the office of Jamie Smith who was a commissioner that was appointed by the DNR State Board.



*Keith Allen*



*Bruce “Sonny” Price*

We are pleased to have these two men serve as commissioner over the next four years!

Dillon County was first included in a Soil Conservation District in 1941. It was then part of the Lower Pee Dee Conservation District which was composed of Dillon, Marion, and Florence Counties. The Dillon Soil and Water Conservation District was organized as a separate District in August of 1951.

The Board of Commissioners is composed of five (5) members. They determine the needs and set priorities for the conservation work in the district. The commissioners serve without pay. Two members are appointed by the SC Department of Natural Resources and three (3) are elected in the general election.



Conservation: Before & After

#### USDA-NRCS

Roger Cooper  
District Conservationist

#### Commissioners

Neal Rogers, Chairman  
Carl Coleman, Secretary/Treasurer  
Keith Allen  
Allen Gaddy  
Bruce "Sonny" Price, Jr  
Mendel "Bud" Smith (Associate)  
Steven Harrelson (Associate)  
Daniel Baxley (Associate)

#### District Coordinator

Angela Baker



EQIP provides financial and technical assistance to agricultural producers in order to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation or improved or created wildlife habitat.

#### Benefits

Eligible program participants receive financial and technical assistance to implement conservation practices, or activities like conservation planning, that address natural resource concerns on their land. Payments are made to participants after conservation practices and activities identified in an EQIP plan of operations are implemented. Contracts can last up to ten years in duration.

#### Eligibility

Agricultural producers and owners of non-industrial private forestland and Tribes are eligible to apply for EQIP. Eligible land includes cropland, rangeland, pastureland, non-industrial private forestland and other farm or ranch lands.

Socially disadvantaged, beginning and limited resource farmers, Indian tribes and veterans are eligible for an increased payment rate and may receive advance payment of up to 50 percent to purchase materials and services needed to implement conservation practices included in their EQIP contract.

#### Applicants must:

- Control or own eligible land
- Comply with adjusted gross income limitation (AGI) provisions
- Be in compliance with the highly erodible land and wetland conservation requirements
- Develop an NRCS EQIP plan of operations
- Additional restrictions and program requirements may apply.

#### How to Apply

Visit your local USDA Service Center to apply or visit [www.nrcs.usda.gov/getstarted](http://www.nrcs.usda.gov/getstarted).

NRCS will help eligible producers develop an EQIP plan of operations, which will become the basis of the EQIP contract.

EQIP applications will be ranked based on a number of factors, including the environmental benefits and cost effectiveness of the proposal.

## Our Affiliate Partners

### Platinum Members

\$75.00 or more donation

Bruce Price & Son Farm  
PO Box 60  
Little Rock SC 29567  
843-841-9339 phone  
bpricefarm@hughs.net



Neal & Gail Rogers  
Fork, South Carolina

Gold Member ~\$50.00 donation



Thank You!!!

Without each one of you, the expansion and continuation of programs offered in Dillon County through the Soil & Water Conservation District would not be possible!! "Thank You" seems so inadequate, we hope that you will realize that your giving has touched the lives of others, through educational programs and community projects in Dillon County.