

Conservation Courier Newsletter



Volume 29 Issue 3

August 2015

PEMBROKE HILL DID IT AGAIN! THEY ARE THE CHAMPS IN THE NATION!



The NCF-Envirothon, a week long North American natural resource education competition was held July 27 to August 2, 2015 in Springfield, Missouri.

Pembroke Hill's five-member team topped 52 other high school teams from throughout the United States and Canada. Team members included Saurabh Goel, Domenico DiMare, Francesco DiMare, Devon Dietrich and Eric Koch. SueAnn Wright is the team's coach. On March 26, 2015 the team first participated in the KC Region Envirothon at Burr Oak Woods in Blue Springs. The top three teams were then invited to the Missouri Envirothon, held May 1, 2015. After winning 1st place at the Missouri Envirothon, Pembroke Hill then earned the privilege to attend the national event.

NCF-Envirothon is a program of the National Conservation Foundation in partnership with Soil and Water Conservation Districts, Missouri Department of Conservation, forestry associations, natural resource agencies and Smithfield Foods. More than 4,000 schools participated in the program at the local, regional and state levels.

Urban and community forestry was a central theme in this year's North American environmental competition. Teams moved between stations where their skills and knowledge were tested on forestry, aquatics, soils, wildlife and a current issue. Pembroke Hill earned top scores in the aquatics and current issue sections. The team also took top honors for oral presentation. Each team member received a \$3,000 cash prize, and their school also received a \$2,000 award for their having the top oral presentation score.

Dedication, hard-work, commitment and a love for their environment describes this team. Through the school year the team meets once a week, every week, in Ms. Wright's basement, which has been converted into a science lab. It is quite obvious why this team has made it to Nationals the last seven years. While team members change with the graduation of seniors, their coach remains steadfast, exhibiting her love of soils and nature. SueAnn is a treasure, and Pembroke Hill High School is fortunate to have such a dedicated parent in their school.

Congratulations to the Pembroke Hill High School team and a special kudos, to their coach, SueAnn Wright for working so hard year after year. Pembroke Hill also won the National Envirothon in 2012 at Selinsgrove, Pennsylvania. The 2016 NCF-Envirothon will be held in Ontario, Canada.

Thanks also to Dave Fry, Coordinator of the KC Region Envirothon.

Ted Hartsig; Soil Scientist *presents*

Urban Natural Resources and Ecosystem Services Workshop

Jackson County Soil and Water Conservation District sponsored this continuing education workshop on June 11th, 2015 for planning professionals looking to expand their knowledge. Ted led discussions on best management practices for natural resources in urban areas. He focused primarily on soil and water health and conservation in developing residential areas.



Several participants had questions about how to prove conservation practices to be profitable. Ted pointed out that with a lot of research; the value of natural resources can be quantified and therefore incorporated into cost considerations for urban planners and developers. He also pointed out that people must be willing to try new things. Ted did admit that there has and will be failed projects; however, these failures hold valuable lessons to be learned from.

The higher initial cost of conservation practices in relation to conventional developments can be justified by its lower maintenance costs over the long term. By bringing the big picture into view and showing people that the bottom dollar will come out in their favor with conservation practices, we can convince professionals that it is not only in the best interest of the environment, but also in theirs; to use conservation practices.

An example of a possible alternative practice that Ted presented was replacing traditional storm drain systems with rain gardens, rain barrels, cisterns and more trees. He explained that by using these ecosystem services at their point source, it could save a city huge maintenance costs on public water systems. Green space or recreational areas can give huge boosts to property values in suburban and especially urban areas, more so if they are done in an environmentally and financially manageable way.

By - Tiffani Sims

Earth Day 2015 at the State Capitol

Earth Day was held April 24, 2015 on the south lawn of the Missouri State Capitol in Jefferson City. Jackson County Soil and Water Conservation District was invited to participate in the event with the Districts Soil Tunnel. The event offered a variety of

fun and educational opportunities for students interested in finding out more about how they can improve the world around them. Dave Fry gave many soil presentations with the soil tunnel. A big thanks to Jackson County Legislators for their financial support to make this happen.



Photos by:
Van Beydler, DNR



Jackson County SWCD Offers Soil Presentations

Free school presentations made possible by your tax dollars!



Funds originate from the one-tenth of one percent of tax dollars administered to Parks & Recreation and Soils through the Department of Natural Resources. Jackson County also offers financial assistance to make this program possible.

Jackson County SWCD designed a soil tunnel with students in mind. The tunnel graphically stimulates students to learn that the soil is teeming with life; showing animals and organisms that live in and depend on the soil.

What we need from you:

- A large room with tall ceilings, such as a gymnasium or cafeteria
- At least two separate electrical outlets
- Three tables
- Two trash cans

Specific presentations that we offer:

- Soil Tunnel – 15' long x 10' wide x 12' tall
- Apple Demonstration
- Edible Soil Profile
- Survey Equipment Demonstration
- Short Informational Video

*These presentations are chosen at the teacher's discretion and are subject to availability.

**Presentations available are dependent on time allotted and number of students.

We can take 40-50 students at one time, divided into groups. Each station is typically given approximately 15 minutes. A bell is rung to signal students to rotate to the next station until each group has been to all of the stations.

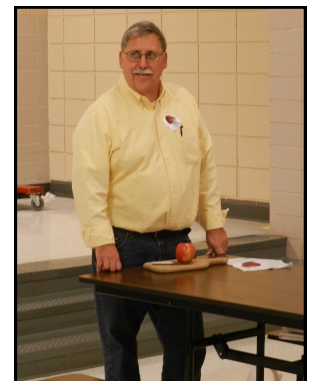
Reservations can be made at any time during the year (The earlier the better!) by contacting Linda Struwe via email or phone at: linda.struwe@swcd.mo.gov or 816-228-1836 x 101



Volunteer — Stacy DeGrace



Volunteers— SueAnn Wright and Michelle Williams with Dave Fry



Volunteer — Jerry Kirkpatrick

Soil Health Training Sheds New Light on Diversity

The Natural Resources Conservation Service held a Soil Health Conference on Monday, July 13th at the Concordia Community Center. Soil Health Advocate Jay Fuhrer presented his research and observations to members of the community and NRCS Staff alike. To begin, he focused on the importance of the carbon cycle on plant growth. He pointed out that the health of a soil can be evaluated by its color alone.

Carbon in its purest form has a black color. For this reason, soil that has more carbon content, or organic matter, will have a darker color. Jay pointed out that by tilling; farmers accelerate the release of carbon from the soil which then makes it unavailable for their crops. He discussed the benefits of sticking to a no-till planting operation and how its benefits can be multiplied by using cover crops in addition to no-till. Nitrogen and other nutrients become more abundant and more readily available when operating a system like this.

Diversity was an important theme in the presentation; as Jay explained that having a wider variety of plants from year to year across all seasons will add to the field, and mimic nature more closely. A few real farms were shown that have used these diverse systems and proved that in addition to eliminating erosion, soil fertility increased under these conditions in a relatively short period of time.

As an intern considering any and all knowledge available to me, I thought the most interesting thing that Jay Fuhrer said was that his entire career changed when he decided to shift his focus from conserving what soil was left – to making efforts to actually build and improve soils for increased productivity, improved water quality, and totally eliminate erosion: NOT just slow it down. When he chose to aim for a bigger goal, he found that it was actually a lot more encouraging and rewarding to be able to see the changes that resulted from his work.

Jay encouraged all farmers to consider the benefits of cover crops and to simply take one step at a time to get started. He also talked extensively about the benefits of adding livestock to cropping systems. This was a wonderful opportunity for both producers and professionals and all appreciated Jay's time and the information he shared.

By— Tiffani Sims



*Thank You Jackson County
for your continuing support,
and financial assistance!*

Jackson County SWCD Cost-Share Process

A step by step guide

1. Contact your local soil and water conservation district office and describe your soil erosion or water quality issue.
2. A site evaluation will be conducted by technicians to determine a solution and if the site is eligible for cost-share.
3. If determined to be eligible for cost-share, the landowner must fill out:
Landowner Authorization – according to property deed
Vendor Input – completed by your bank official
4. A technician will design the practice based on the needs of the landowner and the site itself to meet all standards, specifications and policies.
5. A cost-share contract and conservation plan is created, signed by the landowner and the technician, and then submitted to the local SWCD board for approval. Approvals are based on available funding and the need for the practice to treat soil erosion or improve water quality.
6. Only after approval, the landowner may begin installation according to guidelines laid out within the contract.
7. The landowner notifies the local SWCD office when installation is complete. An additional site visit is completed to certify that all specifications were met.
8. The landowner must submit all invoices and receipts incurred for installing the practice. If grass seed or fertilizer is applied, seed tags and worksheets from the fertilizer plant are required to show pounds of product.
9. The contract payment is generated based on the extents of the components installed, such as feet of pipeline, cubic yards of earthwork, etc.
10. When the contract payment is certified by the technician, signed by the landowner and the local SWCD board it is electronically submitted to the Soil and Water Conservation Program office for payment processing.
11. Reimbursement from the state is direct-deposited in the landowner's bank account. The landowner will receive, via mail, notification from the program office that the payment has been processed. A satisfaction survey will be sent following the payment.

Cover Crops

Last year a pilot program for Cover Crops was offered in the Cost-Share program. This year Cover Crops are offered as regular Cost Share practice to provide operators an incentive to encourage the adoption of cover crops for reducing soil erosion, improving water quality and soil health.

An operator for this practice, is an individual farming the land, who has incurred the expenses for the cover crops. Cover crops must be no-tilled or broadcast seeded. Payment will be made after no-till planting of the production crop is planted in the terminated cover crops or after May 25.

All cover crop seedings must be planned with a minimum of 25% cool-season annual grass, small grain component or warm season grass. Cover crops will not be harvested for grain, seed or hayed. Cover crops may be grazed once the forages have reached a minimum height of 6-8 inches. Tillage cannot be used to terminate the cover crops. Cost Share is not authorized for cover crops in pasture or hay land.

Operators participating in the Cover Crop practice will be eligible for 75% of the component cost of the test through SHAC and an incentive payment of \$30/acre/year for a 1 or 2 species cover crop mix or \$40/acre/year for 3 or more species cover crop mix with a life time maximum total payment of \$20,000 per operator.

For more details or questions call: Joel Parris at 816-228-1836 x 110 or email: joel.parris@swcd.mo.gov

Jackson County SWCD Intern Reflects



Tiffani Sims

In my short time with Jackson County Soil and Water Conservation District, I have learned invaluable information that will be useful for my career in the future. Whether it is for an organization that employs me, possibly in my own business, or even within my own home and/or garden, I can take what I have learned and apply it to make agriculture and conservation systems more efficient. My goal is to take what I have learned here and use it to solve problems for farmers and the environment alike. My passion for the subject has given me opportunities that I never even considered before discovering it, and I hope to see it evolve well into the future. I look forward to bringing about inventive and sometimes dramatic changes within agriculture systems as I challenge myself to improve upon them.

The innovations in agriculture over the last 100 years are endless and are so important to the success of farming. From new seed varieties to ever-increasing technology and versatile equipment, the Agriculture Industry has plenty of resources to help any size farm, though there is always a cost associated. Despite these advancements, farmers still face huge challenges from the natural environment; such as weather, pests, and diseases that have no simple solution when encountered. I did not realize prior to this summer how many factors must be accounted for in a row crop operation,

or how important organization and time management is in livestock operations. I am impressed by how many different ways a farmer and/or rancher can improve their operation, making it more profitable as well as more environmentally friendly.

Through the training I have completed; including, but not limited to, the soil health conference with Jay Fuhrer and the natural resources and ecosystem services workshop with Ted Hartsig, I have come to realize that any successful operation starts with soil health. When the soil can provide everything that any crop needs to be productive, that crop is healthier, higher yielding, and less susceptible to disease and pests. Good soil structure has the potential to protect crops from extreme weather conditions, whether it is flooding or drought because it is less likely to wash away and will also hold appropriate moisture longer. This applies in a livestock operation as well because the quality of forages fed to cattle can have considerable impacts on their weight gain, and calving success which is very important at sale time.

Now that I understand farming systems slightly better and have done my own research, I have come to the conclusion that the best way to combat the elements is to mimic the natural environment on farms as much as possible. Working with ecosystem services despite their inconveniences and unpredictability is easier said than done, and will require localized research and intensive management. I admit this may work better in theory than in practice; however, if a farmer has the ability to micromanage and invests in conservation practices that have long term returns I think they would be consistently successful and profitable. An exemplary 'conservation farmer' would use several different crops in their rotation, including cover crops. They might also graze those cover crops, gaining benefits from having a diverse operation and fertilizing that ground using cattle.

The obstacle with implementing conservation practices is the initial cost associated, time management challenges, and the time it takes to receive a return on such investments. Such practices focus on soil health, water resource protection, and longevity of production land. For whatever reason, many farmers may not have the knowledge and/or resources to invest the time, energy and money into conservation on their farms. The key to understanding how conservation practices can be profitable to a farm is in understanding the ecosystem services in place and their economic value. Once these values can be quantified, comparisons can be made between inputs and outputs for conservation practices versus 'conventional' methods. Now that I've had conversations with some of the farmers in the area, I understand that they typically communicate in terms of dollar signs. Farmers are quite unique people, and I think they feel misunderstood by society and conservationists at times. If we can start a dialogue with them using tested, factual information and effectively communicate the economic value and returns that they receive directly by using conservation practices, I believe they will be more convinced to implement them.

Another factor to be considered as a farmer trying to make conservation practices work for him/her is the market. For example, a Natural Resource Conservation Service (NRCS) agent who tries to encourage farmers to plant buckwheat as a cover crop without cost-share assistance often receives backlash. Their argument is that they cannot justify seed cost for a plant they don't harvest. In this scenario, the NRCS agent found a market for these farmers to sell buckwheat in. He found that the Japanese use buckwheat as an alternative source of wheat that is possibly gluten free. The farmer benefits from reduced erosion and weed competition in his field, along with numerous other soil health benefits. Buckwheat is growing in popularity because of its benefits to pollinators, and short growing season allowing it to be used within a typical cash crop rotation.

The important thing to realize here is that not all farms are the same. A solution for a problem on a farm in central Missouri may not work for a farm with the same problem in western Kansas. This is why micromanagement and localized research are so important. It seems that I hear many farmers in this area talking about the crops and how the farms run in Iowa and Illinois. Personally, I think it is great to keep an eye out for new ideas and practices, but farmers here have to realize that some things that work in the 'I states' simply won't work here. Each farmer needs to know their own land like the back of their hand if they are to utilize the maximum potential of each and every field. The soil types, climate and land are all pretty different from state to state and even county to county, which is one of the things that I love about Missouri. Although we seem to get all of the extremes of weather in a year; we can also get in the car and drive for an hour in any direction to find a totally different landscape with its own unique scenery.

Continued on Next Page

Continued—

I have thoroughly enjoyed the dialogue I have had with the area farmers and realize that I still have a lot to learn. Learning is part of what I have loved so much about conservation in agriculture, and I think as time goes on I will be hard pressed to run out of new things to inspire me. I believe that it is important to have a passion for what you do, because it makes you want to be good at it and always make improvements; even if you are already doing well. I intend to do my best in school and learn as much as possible in class, in the field, and abound so that I may assist farmers in utilizing their land productively while protecting Earth's most precious resources that they rely on to support their livelihood. I hope that I can inspire farmers and their kin to put more effort into enhancing the longevity of their farm and being great stewards for the natural environment. I look forward to expanding the knowledge I have gained from this internship in the future and truly making a *difference* for everyone.

By Tiffani Sims

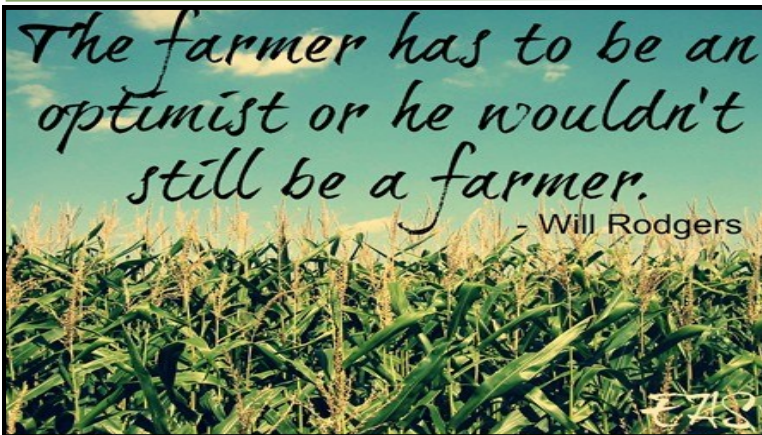
Wishing You the Best! Tiffani
Supervisors of the Jackson County SWCD Board

Farm Service Agency News

USDA OPENS ENROLLMENT PERIOD FOR AGRICULTURE RISK COVERAGE AND PRICE LOSS COVERAGE SAFETY-NET PROGRAMS

Eligible producers may now formally enroll in the Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) programs for 2014 and 2015. The enrollment period began June 17, 2015 and will end September 30, 2015

The new programs, established by the 2014 Farm Bill, trigger financial protections for agricultural producers when market forces cause substantial drops in crop prices or revenues. More than 1.76 million farms have elected ARC or PLC. Previously, 1.7 million producers had enrolled to receive direct payments (the program replaced with ARC and PLC by the 2014 Farm Bill). This means more farms have elected ARC or PLC than previously enrolled under previously administered programs.



Jackson County Field Office Staff

District Conservationist—Jason Saunders

Lead Resource Conservationist—Autumn Newby

Resource Conservationist—Greg Stegner

Soil Conservationist—Scott Slusher

District Tech II—Joel Parris

District Manager/Program Specialist II—Linda Struwe

Info/Ed/Tech—Dave Fry

Changes in SWCD Funding

July 1, 2015 was the beginning of the new Fiscal Year 2016 for Missouri Soil and Water Conservation Districts. Along with the New Year came changes in funding from DNR (Department of Natural Resources).

As a reminder, the Districts are funded through 1/10th of 1% of your sales tax dollars, which is then divided between Soils and Parks/ Rec. The funds are administered through DNR.

At their June 2015 Commission Meeting, the Commissioners, voted to combine Info/Ed funding and Administrative funding, and to give each 114 counties in Missouri an addition \$1,000 to the customary Administrative fund, which cut funding \$9,000 in Jackson County. Obviously, cuts in info/ed programs will have to be made.

If you are receiving this newsletter through the mail, this could be your last newsletter. If you would like to continue receiving the Conservation Courier through the mail or change to an email newsletter you will need to contact Linda at:

District Office: 816-228-1836 x 101

Email: linda.struwe@swcd.mo.gov

Or: Linda Struwe
Jackson County SWCD
1974 NW Copper Oaks Circle
Blue Springs, MO 64015

The Jackson County Soil and Water Conservation District
Board of Supervisors



Conservation Courier Newsletter

JACKSON COUNTY SOIL AND WATER CONSERVATION DISTRICT

1974 NW Copper Oaks Circle
Blue Springs, MO 64015-8300

Phone: 816-228-1836
Extension 101

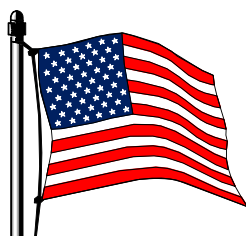
E-mail: linda.struwe@swcd.mo.gov

The Conservation Courier Newsletter carries the message of natural resource conservation to rural and urban Jackson County. To receive a quarterly e-mail notice listing new topics, just e-mail linda.struwe@swcd.mo.gov with your request.



NONDISCRIMINATION STATEMENT

The Jackson County Soil and Water Conservation District prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.



**Conservation Districts
Conserving America**

If you would no longer like to receive this publication please contact the office.

Rob Montgomery, Chairman
John Campbell, Vice Chairman
Dan Stock, Treasurer
Lala Kumar, Secretary and University of Missouri Extension
Tim Brockmeyer, Member

This newsletter is funded by the Parks, Soils and Water Sales Tax through the Missouri Department of Natural Resources.

**JACKSON COUNTY SOIL AND WATER
CONSERVATION DISTRICT
1974 NW Copper Oaks Circle
Blue Springs, MO 64015-8300**

