

#### **USDA Offers Renewal Options for Expiring Conservation Stewardship Contracts**

Agricultural producers wanting to enhance current conservation efforts are encouraged to renew their Conservation Stewardship Program (CStP) contract. Through CStP, USDA's Natural Resources Conservation Service (NRCS) helps private landowners build their business while implementing conservation practices that help ensure the sustainability of their entire operation.

Participants with existing CStP contracts expiring on Dec. 31, 2018 can access the benefits of the recent program changes through an option to renew their contracts for an additional five years if they agree to adopt additional activities to achieve higher levels of conservation on their lands. NRCS will mail contract renewal notification letters to all participants whose contracts expire in 2018, which will contain instructions on how to apply for renewal. Applications to renew expiring contracts are due by April 13, 2018

Through CStP, agricultural producers and forest landowners earn payments for actively managing, maintaining, and expanding conservation activities like cover crops, nutrient management, residue management, grazing management, prescribed burning, and pollinator and beneficial insect habitat – all while maintaining active agriculture production on their land. CStP also encourages the adoption of cutting-edge technologies and new management techniques such as precision agriculture applications, on-site carbon storage and planting for high carbon sequestration rate, and new soil amendments to improve water quality.

Some of these benefits of CStP include:

- •Improved cattle gains per acre;
- •Increased crop yields;
- •Decreased inputs;
- •Wildlife population improvements; and
- •Better resilience to weather extremes.

NRCS recently made several updates to the program to help producers better evaluate their conservation options and the benefits to their operations and natural resources. New methods and software for evaluating applications help producers see up front why they are or are not meeting stewardship thresholds, and allow them to pick practices and enhancements that work for their conservation objectives. These tools also enable producers to see potential payment scenarios for conservation early in the process.

Producers interested in CStP are recommended to contact their local USDA service center or visit www.nrcs.usda.gov/ GetStarted.

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#### New Conservation District Board Supervisor

The Barber County Conservation District Board of Supervisors welcomed its' newest member to her first board meeting on February 6, 2018. Ann Cargill was elected at the Annual Meeting in January, replacing Georgi Dawson who had served on the board for 34.5 years. We look forward to working with Ann as she shares her knowledge in addressing local conservation issues .

## April is State Cost Share Sign-Up

Applications are now being accepted throughout the month of April for cost share assistance through the state's Water Resources Cost Share Program (WRCSP) and the Non-Point Source Pollution Control Program (NPS). A few of the practices which are available through these two programs are erosion control structures, pipe outlet terraces, construction of terraces and grassed waterways, range and pasture seeding, livestock water developments (to include tanks, wells, and pipelines), fencing, and dry hydrants for rural fire protection. Also included in the NPS program specifically are abandoned water well plugging and repair of failed septic systems.

All applications will be ranked according to a priority based ranking worksheet, and funded corresponding to their ranking until all funds are allocated. Projects cannot be started prior to contract approval by the state. To apply for these funds, call or stop by the conservation office and let us know about your project needs.

Funding provided by the Division of Conservation, Kansas Department of Agriculture through appropriation from the Kansas Water Plan Fund.

## Spring Wildflower Tour-May 12

Join us on May 12 for the 33rd annual Spring Wildflower Tour. Knowledgeable tour guides will inspire a new appreciation of those beautiful wildflowers, native to the Gyp Hills of Barber County. Cost of the tour is \$20 for adults (kids 12 and under, \$5) which covers a continental breakfast, transportation to two identification sites, and a hearty barbeque lunch at the Gyp Hills Guest Ranch.

Don't miss this educational event and unique Mother's Day gift opportunity. Paid reservations are due to the conservation office by May 7th. For more information contact us at 620-886-5311.

## John Farney Memorial Scholarship

The John Farney Memorial Scholarship is a \$1000 scholarship sponsored by the Barber County Conservation District. The scholarship will be awarded to a student who is entering at least his/her second year of college. Applicants must be pursuing a college degree in a conservation-related field. The applicant must also be a resident of Barber County. The deadline for applications is May 30, 2018. Applications are available at the conservation office at 800 W. 3<sup>rd</sup> Avenue, Medicine Lodge, Kansas. You may also call (620) 886-5311 for more information.

### Range Youth Camp Scholarship

Range Youth Camp is the most accepted and enduring activity of the Kansas Section of the Society for Range Management. The camp was first held in 1960 and is continuing to educate youth about the importance of Kansas rangelands to this day. The camp is designed to give students a basic understanding of the principles of rangeland ecology, including plant physiology, plant identification, ecological sites, range condition, and trend. Additional topics discussed at camp are animal behavior, animal nutrition, wildlife use of rangelands, and calculating stocking rates.

Upcoming High School Sophomore, Junior, and Senior students who have a serious interest in rangeland management, rangeland ecology, or grazing animals are eligible for a scholarship through the Barber County Conservation District to attend the camp June 19—22, 2018 at Camp Mennoscah in Murdock, KS. Registration deadline is May 15. Contact us at 620-886-5311 for information.

# Fence Line Erosion by Carl Jarboe, NRCS Soil Conservation Technician

I've looked at a few miles of fence over the last two years. One of my duties was to check the fences repaired and replaced after the wildfire. Someone I talked to called me the "Fence Police". That title may not have been too far off as I did ask some landowners to address issues with some of the fence that did not meet the NRCS specifications required to receive cost share assistance. Working with the Barber and Comanche County landowners on the fence repair and replacement was not a hard task. 99% were trying to meet our requirements. I will say that Barber County has some of the best fences around. We couldn't have said that before the Anderson Creek Wild fire.



To build these fences some work was needed to clear a path for the new fence. More in some areas and less in others. Where there was more

ground disturbance I'm starting to see erosion. I'm very concerned that if we don't do something to protect the soil, this opportunity to have a fence line you can travel along easily will be lost. In some areas the erosion is so severe that taking a four wheeler along the fence is no longer possible. We may actually lose some posts due to erosion and then the fence integrity is compromised. Now we have a new fence that is not doing its job. For the amount of cost involved I'm sure everyone who replaced fence is expecting it to last 20 or more years with little repair.

What can we do now? The first comment I tell producers when asked this question is to feed on these disturbed areas. Let the cattle work some organic matter back into the soil. The left over feed will also help slow erosion. Adding some native grass seed along with feeding is even better. The hoof action will help get the seed in contact with the soil and the left over residue from the manure and feed or hay will cover the seed and keep it moist to aide in germination.

If you are have a large amount of erosion think about adding some soil checks. These are little berms every so often down a slope that diverts water to the side instead of allowing it to run straight down the hill. Scatter some native grass seed, available from the Barber County Conservation District, and feed over the scattered seed.

Yes, I've seen my share of fence and a nice straight well braced fence is a wonderful site. Wouldn't it be nice to be able to ride your horse or four wheeler along your fence to make sure it's in great shape for the summer grazing season? With a little effort as described above you may be able to have just that while taking advantage of the work which began when the old fence was removed for your fence building crew.

#### OH, BY THE WAY ...

- The Conservation District carries a large inventory of high density polyethylene (HDPE) corrugated pipe and components for all your drainage needs. Let us be your one-stop shop for your next project; tile outlets, culverts, ponds.
- We also carry a 19-strand lite cable, SunGuard fiberglass posts, metal clips, and lots of other components for cross fencing. Producers love the lite cable for its' "no-slinky" characteristics.
- If you are installing a livestock tank through cost-share, chances are you will be required to install a "bat-ramp" we have 'em!
- As a registered seed dealer, the Conservation District would appreciate the opportunity to fill your orders for native grass seed, cover crop mixes, cool season grasses and much more.

### Let's Start A Conversation About Soil Health By Carl Jarboe, NRCS Soil Conservation Technician

I don't know about you, but when I first heard about "Soil Health" I wasn't really sure what it meant. The Natural Resource Conservation Service (NRCS) is working to help producers (for both crop ground and pasture land) learn more about this topic. I'm sure you have noticed the many articles in various farm journals and magazines about soil health in the past few years. So, what is soil health and more importantly how does it affect me?

Soil Health, also referred to as soil quality, is defined as the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans<sup>1</sup>.

In this article, I will guide you down a path of learning about soil health. The topic is a big one, so we will start with some basic things that can have a dramatic effect on soil health.

Think back to when this was grassland. The soil supported a diverse plant community for many hundreds of years without adding fertilizer, other than that which came from grazing herbivores and let's not forget the multitudes of micro organisms and insects working in the soil. How did that work? What has changed so that the soil is now depleted to the point it no longer supports growing plants without applying fertilizers and pesticides? We even see it in native grass range where it is no longer the diverse community and suffers from over grazing. We have limited the amount of photosynthate that is being produced by plants getting into the ground as sugars that feed the below ground microorganisms. These microorganisms are the powerhouse of healthy soil and they thrive on the sugars or carbon that the plants produce from sunshine and rain.

What can you do as a land manager to help revive the soil? Good management is key. As the soil gets healthier, it will respond by producing more pounds of forage on your range site and better yields on crop ground, all from feeding the microorganisms in the soil

Let's start out with a few simple comparisons. Do you realize that when you graze your pasture very short, you are also reducing the amount of roots your grass has? Several studies show that when your grass is grazed very short, like 2" tall (see photo at right) consistently, you will reduce the roots of your grasses dramatically. By reducing the amount of root biomass, you have now limited the amount of carbon that the roots are putting in the ground to feed the microorganisms.

However, if you would rotationally graze, which impacts duration (the time on a field) and intensity (the amount of



animals over a given time), and provide adequate rest before being trimmed again, your roots will actually grow and reach deeper depths. Which grass will withstand drought better? My money is on the grass that gets rest. Taller grass is more resilient than closely grazed grass with roots that are healthy and reaching out to find moisture.

% Leaf Volume	% Root Growth
Removed	Stoppage
10%	0%
20%	0%
30%	0%
40%	0%
50%	2-4%
60%	50%
70%	78%
80%	100%

What does your pasture look like? How much forage or leaf volume do you let your cow herd remove? Over grazing also results in a less diverse pasture or range site. Cattle will select and eat what they like first, like you or I at a buffet. All of the items presented are edible, but we have our favorites. If we continued to eat the only things we like we would be left with the items we did not prefer. In the case of a pasture or range, cattle consume the forage they like and leave behind the forage they don't. Unfortunately, that goes to seed and the pasture or range is overrun with poor quality forage. We would only eat the others if that was all we had and get nutrition from those items however, cattle and humans are similar in that they will pick and choose what they want and leave behind unpalatable forage . Also, the lack of diversity causes a decline in soil health too which in turn means you grow less grass to graze and will likely see more weedy invaders.

Short grass doesn't slow water down very well, which means faster runoff. The rain you get has less time to infiltrate deep into the soil, where it can be used and stored in times of drought (in a healthy system). It's all about making your rain events more effective by getting precipitation to soak into the ground rather than running off. Also, by having more cover you will have cooler soils and less evaporation. When you can keep more water in the soil, your plants and soil microbes benefit from the healthier environment.

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Regarding your crop ground, do you rotate crops or plant the same crop year after year? The mono culture often seen in this area is not a sustainable system. You may be seeing it takes more inputs to grow a crop, due to the lack of free help from your soil microbes. Did I say free? Yes, indeed I did. When your soil is cared for, it will work for you and help provide the nutrients

your crops need. A simple change you could add that can make a big difference, is to plant a diverse cover crop to keep the ground covered between harvest and your next planting. Keeping the soil covered and adding living roots in the ground as often as you can will improve soil health.

Studies show that you can reduce weeds by having a cover crop planted or by improving your rotation. That can save one or two passes with the spray rig. Fewer weeds can also save a pass or two with tillage equipment. Now we are talking real dollars. These steps are likely to save enough to pay for the cover crop and then some. And guess what, we are starting to build soil health. Keeping the ground cooler (by having the cover crop) provides an environment good for those microbes I mentioned and also helps hold moisture for them and the crop



Some of you will now say, "those covers are using up the moisture I need to get my next crop up." There is some truth to that, however we also know we are keeping water on the land longer with the cover crop versus bare ground. We are also improving infiltration rates by adding more pore space from the living roots and increasing aggregation of the soil by feeding the microbes, play a big role in improving aggregation and porosity. You will get more out of each rainfall event if you can get the moisture into the ground. You will also lower the amount of moisture loss by evaporation by having it covered. Who among you hasn't pulled away some debris in your fields to find some moist soil? In addition, the cover crop will keep the soil cooler, which will help promote the life of the soil, such as the microorganisms and earth worms.

If reading this short article is making you think about your operation and you would like to learn more about improving your soil contact your local NRCS office. We will be glad to provide more information and will do all we can to help you understand more about soil health. We will dig a little deeper into the subject of "Soil Health" in the next Barber County Conservation District Newsletter.

<sup>1</sup>USDA NRCS. 2010. Healthy Soil for Life. Available at: <u>https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/</u> (verified on 13 March 2018). Washington D.C.

The grass planted on the left has been repeatedly closely cut off. Notice the effect on the root system when the plant is continually grazed. What do you think the roots on your pasture look like? Consider which root system is more drought tolerant.

