



Newsletter



FALL 2013

The existence of man depends on six inches of topsoil & the water that falls on it.....Save them

Cost Share Assistance Available

By: Melissa White

Stone County Soil & Water Conservation District has cost share funding available for landowners. It is our hopes to provide this financial assistance to eligible landowners for conservation practices. Should our funds be obligated to 70% by October 15th, we will receive an additional supplemental allocation to further apply practices. This is a funding opportunity that helps us to help you.

If you foresee a need for seeding practices, either yet this fall or next spring, on land where vegetative improvement or establishment is necessary to resolve any soil erosion concerns, call us now for planning. If you are interested in further intensifying any pastures for livestock by adding cross fencing and distribution of water, we can provide financial and technical assistance. You must have attended a grazing school. The schools available yet this year will be Sept. 12-14 in Greenfield, MO, Sept 24-26 in Marshfield, MO and Oct 22-24 in Bois D-Arc.

There is funding available for woodland erosion, by excluding woods from livestock as well as stream exclusions. Cost share supports 2-wire electric fence and energizer. For stream protection, practice may be applied on areas immediately adjacent to permanent or intermittent streams where livestock have uncontrolled access for watering purposes. The excluded areas would be fenced on both sides of the stream. These excluded areas may be flash grazed; there can be limited access to the stream. Cost share would be available for developing another water source for livestock. There is an incentive of \$500 per acre that is excluded, in addition to the cost share for installing the practice. Funding is available for buffering streams by excluding livestock and planting trees; funding for water replacement and incentives are tied to this practice as well. If you have a need for a spring development or to decommission a well, these are also eligible practices.

Any sensitive area such as gully erosion is applicable, or any other concern that affects the protection of our soil and water quality, please contact us.

A cooperator must have agricultural activity on 3 acres or more, or may own land of any size if \$1,000 or more of agricultural products are normally produced and sold in a year.

For more information, call us at the Soil & Water Conservation office at 723-8389 or check us out online at www.swcd.mo.gov/stone

Stone County SWCD and USDA are an equal opportunity provider and employer.

Unlocking the Secrets to Soil Health

By: Melissa White

Soil health is the key to our survival. Demographers estimate that the world's population will grow from seven billion today to more than nine billion in 2050. To clothe and feed that population, farmers will need to produce as much food and fiber in the next 40 years as they have in the last 500 and without exhausting the natural and energy resources.

There has been renewed interest and emphasis on enhancing the one resource for which is the foundation of all sustainable agriculture – our soil.

USDA's Natural Resource Conservation Service (NRCS) launched an awareness and education campaign titled "Unlock the Secrets in the Soil". We believe it is important to share and help others understand the basics and benefits of improving the soil's health. The Soil and Water Commission has seen in counties north of the state, pilot projects for cover crops. We will wait for opportunities to do the same in our area perhaps including for forage crops. Some exciting moves and commitment are being made in the efforts of soil health. NRCS is working with soil and water conservation districts, researchers and other stakeholders to encourage farmers to adopt soil health conservation systems nationwide. The benefits are plentiful. According to experts and a growing number of the nation's farmers, healthy soils are not only high producing, they also help growers optimize production inputs, which improves profitability and sustainability.

NACD- National Assoc. of Conservation Districts is also part of an interagency workgroup in USDA (including NRCS, FSA and Risk Management Agency) to develop guidance and to clarify the ability of producers to implement cover crops while also participating in crop insurance and other programs.

Healthy soil keeps nutrients where they can be used for growing healthier plants, versus traveling into our streams and lakes. These soils have a greater water-holding capacity, helps limit production losses and help water to infiltrate into the soil and avert flooding disasters downstream.

Four Key Principles: These make up the core of any effective system.

- 1) Using plant diversity to increase diversity in the soil
- 2) Managing soils more by disturbing them less
- 3) Growing a living root throughout the year
- 4) Keeping the soil covered as much as possible.

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LOCAL SPOTLIGHT

Moreland and Israel Named Missouri Farm Families

Each year, the Missouri State Fair sets aside a day to recognize farm families from across the state. These families are active in their community, involved in agriculture and participate in local outreach and extension programs such as 4-H and FFA. The families traveled to the state fair on August 12th and received a plaque from the Fair Board.

The Israel Family of Crane, MO was selected as the Stone County Missouri State Fair Farm Family by the Stone County Extension Council and local Farm bureau.

The Moreland family of Crane, MO was selected as the Barry County Missouri State Fair Farm Family by the Stone County Extension Council and local Farm Bureau.



Shown in each picture with farm family is Dr. Tom Payne, Vice Chancellor and Dean, University of Missouri, College of Agriculture, Food and Natural Resources; Blake Hurst, President, Missouri Farm Bureau; Lowell Mohler, Missouri State Fair Commission; Dr. Jon Hagler, Director, Missouri Department of Agriculture; Barbara Hayden, Missouri State Fair Commission; and Mark Wolfe, Director, Missouri State Fair.



Missouri Forage & Grassland Scholarship

The Missouri Forage and Grassland Council/Grazing Lands Conversation Initiative is proud to sponsor the Grasslands Evaluation Contest for high school agriculture students. The MFGC/GLCI has a keen interest in advancing the role of profitable and sustainable forage and grassland production. The District Grassland Evaluation Contest will be held October.

Students that participate in the Grassland Evaluation contest are eligible for a \$1000 scholarship. Eligibility requirements and applications are available on the MFGC/GLCI website and are due by October 17th. A link to the web site is <http://agebb.missouri.edu/mfgc/scholarship2013.htm>

Pasture Profits - Forage Allowances & Weed Control

By: Melissa White

In grazing systems, forage allowance is a key management variable. The amount of forage dry matter available to livestock defines forage allowance and can be expressed on a per animal basis or as a ratio per an animal's body weight. In grazing schools, there is a targeted forage allowance of 2.5 lbs. dry matter per pound of body weight. Forage allowance is related to the stocking rate variable, which is the number of animals grazed on a given area of land for a period of time. The stocking rate is the key variable that determines production and economic responses of grazing systems. Such factors would be average daily gain, gain per acre, stand persistence and net return. If more conservative on your stocking rates, typically it will produce greater ADG and stand persistence while more aggressive stocking rates produce more gain per acre along with greater risk. When determining forage allowance, the number of acres allowed per animal, to come to an arrived stocking rate, you have to consider what you think that forage production will be, determine the amount of residual forage that is desired, and consider the size of your cows and their forage demand, then put enough acres to each cow to achieve the forage allowance you want. As one can see, forage allowance determines a lot of important outcomes in response to ones managed grazing systems.

Another way to increase animal production is with good pasture weed control. Weeds can hamper the overall economics of your operation. Although rain has been much more plentiful this year, the drought of the last two years has still had an impact on the weed populations this year. We still have to keep in mind soil fertility needs when discussing weed pressures. The goal here would be to evaluate current forage inventories in determining seasonal productions; times of excess and or shortages. We want to increase production when forage is typically short and increase utilization when excess growth does occur. Effective grazing management plays a role in this as well. The goal of growing more grass is related to both the elimination of weeds and taking care of the desirable pasture species. Keep in mind the Four R's of pest management: Using the Right product on the Right weed at the Right time and using the Right surfactant product. Besides technical assistance from agencies such as Soil & Water Conservation District, NRCS, and University of Missouri, there are many websites to assist you in identifying certain weed species and the best control needed. Timing is very important, generally attacking those weeds early on in their life cycle. You want to apply just the needed amount for which the plant can take in versus using too much that can result in a solution that burns the leaves off before the plant can absorb it.

Join us, the Stone Co. Soil & Water staff and Tim Schnakenberg with University of Missouri Extension for a Field Day and Pasture Walk on Sept.16th. See more information on our upcoming events in this newsletter or give us a call at 723-8389; Melissa White or Kevin Wray; rsvp will be required for food preparations by 9-11-13. We hope to see you there.

In the Name of Science: Test Tube Burger --- REALLY??

By Melissa White

Well I happened across an article I read in a beef magazine and found it online through Daily Mail Online in an article dated July 28, 2013, just as you can. This country girl is not going for it. I'm thankful for our farmers and all the heart that goes into livestock production & whose livelihood comes from the farm. The first test tube-grown beef will be served in a London restaurant. It is made from meat grown in a laboratory, rather than from cattle raised by the farmers. This burger's developers hope to show how the soaring global demand for protein can be met without the need for vast herds of cattle. The 5 oz. "Frankenburger" is made from 3,000 tiny strips of meat grown from the stem cells of a cow. It is said the raw meat is grey in color with a slippery texture similar to squid or scallop. It was created by a Professor from the University of Maastricht in Holland. The Professor stated that right now, we are using 70% of all agricultural capacity to grow meat through livestock but that alternatives would be needed. This process is a four step technique. First, stem cells are stripped from the cow's muscle then incubated in a nutrient broth until they multiple many times over, creating a sticky tissue with the consistency of an undercooked egg. This wasted muscle is then bulked up through the laboratory equivalent of exercise – it is anchored to Velcro and stretched. Finally, 3,000 strips of the lab-grown meat are minced and along with 200 pieces of lab-grown animal fat, formed into a burger. This is not only a lengthy but expensive process, but it could take just six weeks from stem cell to supermarket shelf. Professor Mark Post's work is funded by the Dutch government as well as an anonymous donation of 300,000 euros. It remains to be seen, if this development will find favor with the public that likes to think of its chops, steaks, and sausages as having their roots in nature rather than in test-tubes. As you may have guessed, animal rights organizations have already given their approval. How about you? I believe that when the living creatures were created according to their kind, and man-kind was created to have dominion over them and that we are to be fruitful and multiply to fill the earth, that then is exactly what we are supposed to do.

Landowners Have a Responsibility for Thistle Control

By Tim Schnakenberg

After the recent years of drought, thistles have taken advantage of weakened grass stands and full-bloomed plants are visible in many fields through the area. Many tracts of land in Stone County are inundated with heavy populations of musk and bull thistles. Some landowners have taken extra steps this year to keep the problem in check, while others have done nothing.

As a reminder for all Missouri landowners, section 263.190 of the Revised Statutes of Missouri provides that “It shall be the duty of every owner of lands in this state to control all Canada, musk or Scotch thistles growing thereon so often in each and every year as shall be sufficient to prevent said thistles from going to seed”.

“Thistle control can be very difficult but it is not impossible”, according to Tim Schnakenberg, Regional Agronomy Specialist with University of Missouri Extension based in Galena. “I know several farmers who have spot sprayed thistles throughout the spring who still have a few patches of thistles that slipped through. It is common to have a few here and there, but large tracts of uncontrolled thistles make it more challenging to neighbors who have worked hard to keep thistles on their side of the fence from going to seed.”

What is to be done at this point in time? Since the majority of the seed for the growing season is already produced, control measures at this time are after-the-fact. Most thistles are biennials, meaning they germinate in the fall, bolt with a seed head in the spring, produce seed and die by mid-summer. Since the plants that have blooms and seed are almost dead because of the proximity to the end of their lifespan, spraying is almost fruitless now.

Mowing is the first impulse of many to control it now, but one risk of mowing is the spreading of the seed to other areas on the mower deck, making matters worse for the fall germination period. Sometimes this is what it takes however to clean up a mess.

Over thirty years ago, efforts on the part of the University of Missouri and USDA in our state brought about the introduction of the flower head weevil and rosette weevil that specifically targets thistles. There is lots of evidence that these weevils are doing a massive job of consuming many of the seed in the flower heads scattered across our county. There is no way that they can keep up with all the seed produced, but if they are getting perhaps 30-40 percent of the billions of seeds that are produced each year, they are having an impact.

Schnakenberg advises, “Watch for dried up seed heads and take a sharp knife and cut them open for evidence of weevil damage. Many times you will find 2-4 flower head weevils in the heads. At this time of year, this is probably the best control going.”

“Biological control does not take us, as landowners, off the hook for keeping thistles from going to seed. Obviously the weevils need our help.” This includes spraying at appropriate times of the year with products such as 2,4-D, dicamba, Grazon P+D, GrazonNext or other registered products. The best times to spray are when the plants are still in the rosette stage which is the stage these plants are in for 70-80 percent of their lifespan. This corresponds with an ideal time of the year to spray being in the fall (October) or early spring (March-April). Sometimes widespread broadcast spraying is necessary for control over spot spraying.

Mowing multiple times is also an option in the spring or early summer. A Kansas study found that only 11 percent of the musk thistles mowed at the early bud stage were killed. When mowed a second time four weeks later, 79 percent of the thistles were controlled. The best time to start mowing is within two days after the terminal flower head blooms in order to inhibit seed production and prevent rebolting. Remember however, that viable seed can start to develop within seven days of the first pink coloring in the heads.

“Let’s all do our part to keep thistles from going to seed,” says Schnakenberg. “It is challenging but will make our property more productive, keep our neighbors happy with us and improve property values in the long-run.” For more information regarding thistle control or for help identifying the species of thistle, contact your local MU Extension Agronomy Specialist.

Farmers Invited to Apply for SARE Grants

Farmers with innovative ideas on improving their operations through sustainable agriculture practices can apply for funding to try out those ideas. The USDA’s sustainable agriculture research and education (SARE) program offers competitive grants for on-farm research, demonstration and education projects, said Debi Kelly, University Extension SARE co-coordinator.

For grants to be issued in 2014, about \$400,000 will be available to farmers in the USDA’s 12-state North Central Region, which includes Missouri. Proposals show how farmers plan to use their innovative idea to explore sustainable agriculture options and how they will share project results with other producers. The deadline for grant proposals is Nov. 14.

Missouri leads the NRC in the total number of awards since 1988 and usually receives on average 10 grants per year.

Debi Kelly will be conducting workshops throughout the state to help producers with grant-writing basics, choosing a project, knowing what to expect, and the keys to a successful application. For the first time, grant proposals can be submitted entirely online.

A workshop will be held on Oct. 25: MU Southwest Research Center, Mount Vernon, 4-9 p.m. Contact to register Shon Bishop, 417-846-3948

Drought Status & Farm Bill

According to the National Weather Service, a long stretch of hot and dry weather during the past week has allowed drought conditions to intensify across much of northern Missouri. Severe drought (D2) has developed in areas that have received little to no rain during the month of August. In fact, some locations will have experienced their driest month of record!

For the state of Missouri, through August 25th, hay and other forages were rated as 6% short or very short, stock water was rated as 10% short or very short, range and pastures were rated as 15% poor or very poor. The corn crop was rated as 20% poor or very poor, soybeans were rated as 19% poor or very poor, cotton was rated as 9% poor or very poor and sorghum was rated as 8% poor or very poor.

Both the U.S. Senate and U.S. House of Representatives have passed farm bills. The process now moves to a Conference Committee, which is composed of members of the U.S. Senate and House of Representatives appointed by the leadership of the respective legislative chamber. It is tasked with working out compromises on the differences between the two bills. Differences between house and senate bills include nutrition and dairy programs, permanent law, crop insurance, direct payment and upland cotton.

Senate Majority Leader Harry Reid (D-Nev.) and Minority Leader Mitch McConnell (R-Ky.) on Thursday evening August 1, 2013, named the following conferees to reconcile differences in farm bill legislation approved by the Senate and House of Representatives: **Republicans:** Ranking Member Thad Cochran (R-Miss.) and Senators Pat Roberts (R-Kan.), Saxby Chambliss (R-Ga.), John Boozman (R-Ark.), and John Hoeven (R-N.D.) **Democrats:** Senate Agriculture Chairwoman Debbie Stabenow (D-Mich.) and Senators Patrick Leahy (D-Vt.), Tom Harkin (D-Iowa), Max Baucus (D-Mont.), Sherrod Brown (D-Ohio), Amy Klobuchar (D-Minn.) and Michael Bennet (D-Colo.)

Abnormally Dry - Portions of west central, central and northwestern Missouri as well as parts of east central Kansas.

Moderate Drought - Portions of eastern Kansas and northern Missouri north of the Missouri River.

Severe Drought - Portions of north central and northern Missouri.

Farming isn't about years; it's about generations...particularly from the standpoint of conservation.

We have come a long way. We now have the safest, most affordable food supply in the world, and we should be very proud of that. But we have a lot more to do. Last year, we suffered a drought worse than any we have seen in 50 years. We saw crops withering in the field from California to the Carolinas, and it's only because of conservation polices that were put in place decades ago, since the Dust Bowl, that we didn't have another Dust Bowl destroy farmland; the soil stayed on the ground, not by accident, but because of a set of polices and vision and a whole lot of hard work.

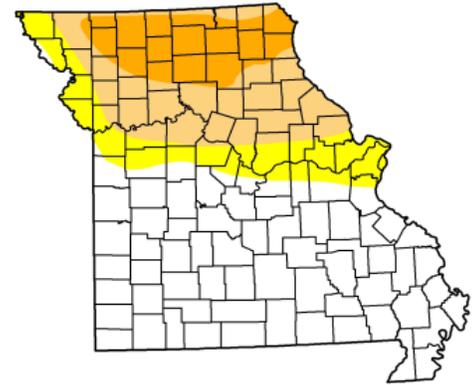
—Debbie Stabenow, U.S Senate Agriculture Committee Chairwoman
At NACD Legislative Conference

U.S. Drought Monitor

September 3, 2013
Valid 7 a.m. EST

Missouri

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	57.74	42.26	29.43	11.32	0.00	0.00
Last Week (08/27/2013 map)	56.51	43.49	31.30	8.47	0.00	0.00
3 Months Ago (06/04/2013 map)	96.81	3.19	0.00	0.00	0.00	0.00
Start of Calendar Year (01/01/2013 map)	0.00	100.00	94.68	40.42	0.00	0.00
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	84.50	16.90	0.00
One Year Ago (08/28/2012 map)	0.00	100.00	100.00	100.00	97.44	35.29



Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



Released Thursday, September 5, 2013
National Drought Mitigation Center,

NRCS Online Soil Survey Information – Resource for Farmers

NRCS has made it easier to understand the soils beneath our forage with their “Web Soil Survey”. The U.S. has the largest soil data base in the world, with soil maps and information available for over 95% of the nation’s counties. All the information is at your fingertips and provides anyone with computer access a wealth of free soils information along with soil maps, properties and interpretations to help you with land use decisions. Use following website:

<http://websoilsurvey.nrcs.usda.gov>



United States Department of Agriculture
Natural Resources Conservation Service

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Upcoming Events

- Sept. 14th** Lake Taneycomo Shore Clean-up
<http://trlwq.org/whats-happening/events/lake-taneycomo-cleanup>
Need sponsors
- Sept. 16th, 5pm** Weed and Brush Control Tour
Vaught Farm 41604 State HWY 413, Crane, MO
Meal provided, Call to RSVP
- Sept. 24-26** Regional Management-Intensive Grazing School
Marshfield, MO
Contact: Mark Emerson , (417) 468-4176
- October 22-24** Regional Management-Intensive Grazing School
Bois D'Arc, MO
Contact: Greene County SWCD., (417) 831-5246

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