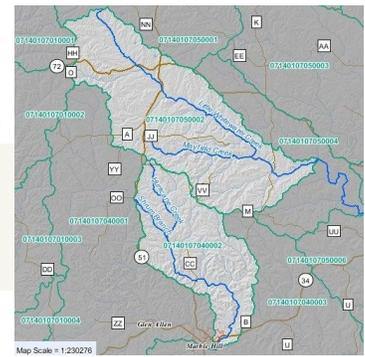




BOLLINGER COUNTY
SWCD

SUMMER 2013

HURRICANE CREEK &
LITTLE WHITEWATER
SALT AREA



OFFICE STAFF

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Office Hours

Monday-Friday

8:00 am -4:30 pm

Phone Number

573-238-2671 Ext. 3

Fax Number

573-238-3315

Visit us on the Web!

www.swcd.mo.gov/bollinger

TOTAL GOALS MET & DOLLARS SPENT
IN THE SALT AREA TO DATE

The Hurricane Creek & Little Whitewater River Special Area Land Treatment (SALT) Project started July 1, 2008, and is scheduled to continue through June 30, 2015. To date, the project has met the following goals:

Erosion Control

DWC-1 (Pond) 15 structures completed \$139,823.14
DWP-1 (Dry Hole) 7 structures completed \$16,724.11

Forestry

DFR-5 (Exclusion Fence) 11 completed \$37,240.54
C100 (Timber Harvest Plan) 1 completed \$1,480.00
N472 (Exclusion Fence w/incentive) 7 completed \$29,462.71
N655 (Restoration of Skid Trails) 4 completed \$4,904.27

Seedings

DSL-1 (Seeding Establishment) 16 completed \$61,047.93
DSL-2 (Seeding Improvement) 8 completed \$26,664.36

Buffers

WQ10 (Stream Protection) 1 completed \$4904.27

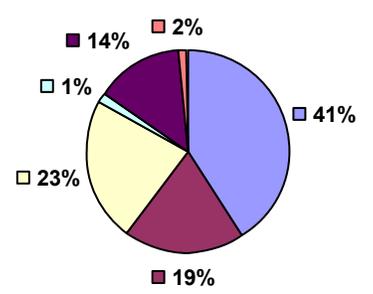
Pasture Management

DSP 3.1 (Grazing Sys. Water Dev.) 2 completed \$14,451.52
DSP 3.2 (Grazing Sys. Water Dist.) 4 completed \$23,369.24
DSP 3.3 (Grazing Sys. Fence) 3 completed \$14,306.73
DSP 3.4 (Grazing Sys. Lime) 2 completed \$973.23

Surface & Ground Water

N574 (Spring Development) 2 completed \$5,989.25
N351 (Well Decommissioning) 2 completed \$800.00

Total Dollars Spent in SALT Area
\$382,141.30



Erosion Control	\$156,547.25
Forestry	\$73,087.52
Seedings	\$87,712.29
Buffers	\$4,904.27
Pasture Management	\$53,100.72
Surface & Groundwater	\$6,789.25

Fiscal Year 2014 will start July 1, 2013. The cost-share allocation for fiscal year 2014 will be \$74,000. The \$74,000 is to be spent specifically in the Hurricane Creek & Little Whitewater Area. The Bollinger County Soil & Water Conservation District (SWCD) operates on a first-come, first serve basis and has a waiting list for some practices. Each practice has qualifying factors to determine eligibility for cost-share assistance. If you would like more information concerning our programs or have an area on your farm that needs evaluation, please call 573-238-2671 ext. 3.

Tall Buttercup

Ranunculus acris

Tall buttercup is a European species that has spread throughout North America, typically found in pastures and meadows and sometimes woodlands. Unlike the low-growing [creeping buttercup](#), tall buttercup does not spread by stolons, just by seed, and is upright not creeping. It is recommended you prevent the spread of this species to uninfested areas and control it in areas where it is found, especially pastures being grazed.

Identification

Tall buttercup is an upright, perennial broadleaf plant that grows from a cluster of fibrous roots. Stems are 1 to 3 feet tall, hairy, hollow, leafy below and branched above. Each root crown typically has several stems in a cluster. Flowers have 5 to 7 glossy yellow petals, are about 1 inch wide, and grow on long stalks.

Leaves at the base grow on long stalks and are divided deeply into 3 to 7 coarsely lobed segments that radiate from a common point like fingers on a hand. The upper leaves are smaller and have fewer lobes and teeth. Leaves are softly hairy. Seedlings have 2 egg-shaped cotyledons with 3 to 5 noticeable veins. Young plants form a rosette. The first true leaves are hairy, round to heart-shaped in general outline, and shallowly lobed and toothed. Leaves have long leaf stalks that are hairy except at the base.



Impacts

Tall buttercup can dominate a pasture given the opportunity, especially those with acidic soils and/or over-grazing. It could hinder colonization by native species in a prairie or grassland habitat if it were allowed to invade and spread.

The main impact is to livestock. Fresh buttercup plants are toxic to grazing animals, who can suffer from salivation, skin irritation, blisters, abdominal distress, inflammation, and diarrhea. Fortunately, buttercup has a strong, bitter taste so animals generally try to avoid it if more palatable forage is available. Also, the toxin *protoanemonin* is not very stable and loses its potency when dry, so buttercup is not generally toxic in hay. Unfortunately, livestock occasionally develop a taste for buttercup and consume fatal quantities. It is safest to keep populations of buttercup under control on grazed pastures and offer plenty of healthy forage.

Growth & Reproduction

Tall buttercup spreads only by seed and is a short-lived perennial. It blooms from late May to September and is pollinated by a variety of insects. Seeds are dispersed by wind, birds, farm animals, small rodents, clothes and tires. Seed germination is usually in spring and generally requires open soil.

Tall buttercup can be found in a variety of habitats, including wet lowlands and rich woodlands and is a common weed in pastures, meadows, and along roadsides. It usually does not persist in cultivated fields. Tall buttercup prefers heavy, moist soils but can grow in sandy or gravelly soil if there is sufficient moisture available.

Control

Prevention & Cultural Control

- In lawns and pastures, promote healthy grass by overseeding, fertilizing as needed, and not over-grazing. Adding lime can improve grass health and keep buttercup from re-establishing. However, lime won't control buttercup that is already well-established.
- It also helps to improve soil drainage. Reduce compaction by aerating and avoid trampling when soils are wet.
- Clean mowers and other equipment to avoid spreading buttercup seeds to un-infested areas.

Manual

- Pull or dig up plants, removing all of the roots. Digging is most effective in the spring and early summer while the soil is moist and roots won't break off as much.
- Disturbance of the soil can increase seed germination.

Mechanical

- This weed will not survive cultivation so plowing a field or meadow will help control it.

Chemical

- Herbicides can be used if allowed and appropriate for the site and land use. Follow all label directions to ensure safe and effective use.
- Broadleaf herbicides can be applied over grassy areas infested with buttercup to selectively kill the buttercup and not the grass. Products containing the active ingredient MCPA are most effective on buttercup. Metsulfuron (Escort, Ally) is also effective but can harm some grasses. Follow label directions on timing and rates.
- Glyphosate (e.g. Roundup, Aquamaster) can be applied to actively growing plants before they seed. Keep spray off of grass and other plants. Re-seed or re-plant bare areas after removing buttercup to keep it from re-infesting the area.
- It will probably take at least two or three applications to eradicate tall buttercup because of the seed bank and because some mature plants will generally recover.



CONSERVATION PRACTICE SPOTLIGHT GRAZING MANAGEMENT

Continuous grazing is the most common grazing practice implemented by landowners with livestock. The continuous grazing usually results in a plant community of less-desirable species. When livestock graze continuously without restriction, they eat the most palatable forage first. If plants are repeatedly grazed without allowing time for their roots to recover and leaf, they will die. Plants that are not eaten by livestock will mature and go to seed. This causes the plant populations of desirable plants to decrease.



An option for landowners to offset the negative affects of continuous grazing is by applying a rotational grazing system on their property. Rotational grazing allows the pasture time to rejuvenate from the constant livestock feeding and traffic. With a grazing system in place livestock producers can extend their forage supplies and carry more animals per paddock.

Rotational grazing is accomplished by dividing your pasture into smaller pastures or paddocks with a water source for each paddock. The livestock are then moved from one paddock to the next. Grazing systems can be very different from one farm to another. Many different factors determine the setup of a grazing system and are personalized to fit your property and your own personal needs. The best way to determine the size and set up of a grazing system for your property is to contact the office for technical assistance.

The Bollinger SWCD has cost-share available to assist landowners interested in implementing grazing systems. Cost-share is available for the components used to cover the following: Water Development, Water Distribution, Fence, Lime and Seed. Please keep in mind that there can be a wait for cost-share due to limited funds per fiscal year. To be eligible for cost-share for a grazing system the participant will be **required** to attend an approved grazing school. There are grazing schools offered every year in this area (see page 8 for the next grazing school). The school consists of a two day class and field visit. If you have any questions regarding grazing systems or would like to request technical assistance, please contact the office at 573-238-2671 ext. 3.



Bollinger County Soil & Water Conservation District

PRACTICES AVAILABLE

The Bollinger County Soil & Water Conservation District (SWCD) offers assistance on the following practices. Each practice has qualifying factors to determine eligibility for cost-share assistance.

Gulley, Sheet & Rill Erosion

DSL1—Permanent Vegetative Cover Establishment (Seeding) - Cost-share assistance available for lime and fertilizer, eligible seed, seeding operation, and seedbed preparation. Cost-share assistance is limited to the minimum amount of lime, fertilizer and seed(s) needed to establish adequate cover to control erosion.

DSL2—Permanent Vegetative Cover Improvement (Seeding) - Cost-share assistance available for seeding of legumes into permanent vegetation and for lime, fertilizer and chemicals necessary to establish legumes. Cost-share assistance is limited to the minimum amount of lime, fertilizer and seed(s) needed to establish adequate cover to control erosion.

DSL5—Diversions - Cost-share assistance for diversions, ditches, dikes or subsurface drains where necessary for the proper functioning of the diversion. Consideration will be given to the needs of wildlife during the design and application of this practice.

DSL11—Permanent Vegetative Cover: Critical Areas - Cost-share assistance for shaping and seeding down critical areas (such as gullies, banks, roadsides, field borders, and similar problem areas) on farms which are susceptible to erosion or where runoff, carrying substantial amounts of a sediment, constitutes a significant pollution hazard, or where both exist.

DSL111—Permanent Vegetative Cover: Confined Animal Feed Lots - Cost-share assistance for shaping and seeding down critical areas created around confined feed lots which are susceptible to erosion or where runoff carrying substantial amounts of a sediment, constitutes a significant pollution hazard, or where both exist.

DWC1—Water Impoundment-Reservoirs (Ponds) - Cost-share assistance is available to build structures that provide erosion control benefits and which may also provide water for agricultural uses, including livestock water, irrigation of permanent vegetation cover, or fire protection.

DWP1—Sediment Retention, Erosion, or Water-Control Structure - Cost-share assistance is available to install a drop pipe or create a dry hole structure to fix specific problem areas on farms where runoff of substantial amounts of sediment or runoff containing pesticides or fertilizers constitute a significant pollution hazard.

DWP3 – Sod Waterway - Cost-share assistance is available for site preparation, grading, shaping, filling and establishing permanent non-woody vegetative cover on farmland needing permanent sod waterways to convey excess surface runoff water in a manner that will reduce erosion. Cost-share assistance is also authorized for subsurface drains that are necessary for proper functioning of the waterway.

Irrigation Management

N554 – Drainage Water Management – Purpose is to improve soil environment and water quality by regulating the water table and ground water flows to increase nutrient uptake in cropland. Practice maximum shall not exceed 75% of \$350 (\$262.50) per acre or 75% of the actual cost, whichever is less.

N430 – Irrigation Water Conveyance – Purpose is to assist with proper management of irrigation water by reducing water conveyance losses and preventing erosion thus improving water quality. Cost-share assistance is available for underground pipeline, trenching and backfill, outlets, check valves, pressure relief valves, air release valves, joints and connections. Cost-share maximums are based on irrigation history.

N442 – Irrigation System, Sprinkler – Purpose is to efficiently and uniformly apply irrigation water to maintain adequate water for the desired level of plant growth and production without causing excessive water loss, erosion or water quality impairment. Cost-share assistance is authorized for the replacement of sprinklers or nozzles that will increase system efficiency for fields that have been irrigated three of the last five years. A limit of four pivots is allowed per cooperator and/or farm.

Pest Management

N595 – Pest Management – Purpose of this practice is to minimize chemical entry of contaminants to ground and surface water by properly following a pest management plan. The pest management plan should assist the producer in determining whether, when and how an application of pesticide should occur for the crop. Cost-share is authorized for the chemical application that best meets the need of the landowner. A complete pest management plan must be written prior to contract approval. The basic incentive rate shall not exceed \$10 an acre with a maximum of \$5000 per cooperator. Individual fields may be enrolled only one time for 3 consecutive years. Additional fields may be enrolled until the lifetime practice maximums have been reached.

Sensitive Areas

N351 – Well Decommissioning – Purpose of this practice is to prevent entry of vermin, debris, fertilizer, pesticides, and other foreign substances into the well or well bore hole and to seal and permanently close water wells no longer in use. A flat rate of \$400 will be paid to the landowner for completing this practice.

N574 – Spring Development – The purpose of this practice is to protect and enhance water quality through proper collection and distribution of ground water sources. Cost-share is authorized for pipe and trenching from collection point to one distribution point (tank) including outlet, not to exceed 300 feet. Permanent fencing cost also eligible for cost-share.

N386 – Field Border – Protect water quality by trapping sediment, chemical and other pollutants and reduce erosion from wind and water. Cost-share is authorized for establishment of field borders for crop fields. One time out-of-production incentive payment of \$600 per acre may apply. A reduced incentive payment may apply to those enrolled in CRP (Conservation Reserve Program). Maximum width for incentive is 60 feet. Fertilizer required for maintenance of established stand will be applied at applicant's expense.

N391 – Riparian Forest Buffer – Purpose of this practice is to reduce the amounts of sediment, organic material, nutrients and pesticides in surface runoff and reduce excessive nutrients and other chemicals in shallow ground water flow with a secondary benefit of streambank stabilization. Applies to areas adjacent to permanent or intermittent streams, public drinking water reservoirs, and natural wetlands. One time out-of-production incentive of \$1200 per acre may apply. Maximum width for incentive is 180 feet. Livestock must be excluded except for controlled stream crossing points. Cost-share for permanent fencing associated with excluding livestock from stream.

N393 – Filter Strip – Purpose of this practice is to reduce erosion and prevent or reduce pollution of land or water from agricultural or silvicultural non-point sources. Applies to areas below cropland, hayland or grazing land where animal waste may leave area and enter environmentally sensitive areas. One time out-of-production incentive payment of \$1000 per acre may apply. Filter strip shall be a minimum of 25 feet wide and cost-share can only be paid on a maximum width of 100 feet. Cost-share authorized for establishment, permanent fencing cost associated with excluding livestock from a stream.

WQ10 – Stream Protection – Purpose of this practice is to reduce excessive amounts of sediment, organic material, nutrients and pesticides in surface runoff and reduce excessive nutrients and other chemicals in shallow groundwater flow with a secondary benefit of streambank stabilization. Applies to areas adjacent to permanent or intermittent streams, streams containing perennial pools or natural wetlands where livestock have uncontrolled access for watering purposes. One time out-of-pocket incentive may apply. Cost-share includes permanent fencing, stream crossings, watering sources, pipeline, water tank and more.

DSP3.1—Grazing System Water Development - Cost-share assistance is available to develop a water source (well, pond or spring development) for a planned grazing system up to a maximum of \$95/per acre. The acres to be considered for the per-acre maximum will only be the acres within the paddocks served by the water source development. Cost-share will be provided based on size and type of water to be given to existing water sources. Eligible items allowed under the pond construction include labor, earthwork, principle spillway pipe, water line pipe, materials for limited access watering, fence, lime fertilizer, seed, seedbed preparation and mulch needed for the critical area seeding of the pond. Eligible items allowed under well construction include the well drilling, casing, grout, liner, well house, submersible pump, pressure tank, wire from pump to control box, check valves, splice kits, pitless adaptors, torque arrestors, pump seals and fittings and seals for the well itself. Eligible items allowed under the spring development include spring collection pipe, spring collection box, excavation and labor to develop the spring and fencing of site. Grazing school is required to participate in grazing system practices with the soil and water conservation district, please see district personnel for dates available.

DSP3.2—Grazing System Water Distribution - Cost-share assistance available for components needed to distribute water throughout a grazing system to a maximum of \$85/per acre. The acres to be considered for the per-acre maximum will only be the acres within the paddocks served by the water distribution system. Water distribution will only be allowed on existing systems if the number of paddocks is increased or acreage is added to the current system. The exception to this is that water can be distributed to paddocks that have not previously contained a water source without requiring additional fencing (systems that have involved moving livestock through lanes to a central water source). Where a watering facility installed with state cost-share exists in a paddock, no cost-share will be provided for enhancement of that watering facility. Cost-share will be provided for installing pipeline from a water source to a water distribution point(s) for livestock watering within the grazing system. Pipeline and components that do not provide water to one or more paddocks in the system, but serve lots, buildings, and area that are not part of the grazing system are not eligible for cost-share. Eligible items include labor, trenching, pipe, hydrants, limited access watering sites on ponds, water tanks, limited stream access and other materials required to complete the water distribution for the grazing system. Grazing school is required to participate in grazing system practices with the soil and water conservation district, please see district personnel for dates available.

DSP3.3—Grazing System Fence - Property line perimeter fence and fence along roads or lanes used to travel to a residence are not eligible for cost-share. Crop fields that are mechanically harvested are not eligible for cost-share on fence. This practice will provide up to 75 percent cost-share for interior fencing components needed to install or intensify a grazing system up to a maximum of \$60/per acre. Any fence constructed must increase the number of paddocks in the system. The acres to be considered for the per-acre maximum will only be the acres within the paddocks where new fencing is installed. Construction of fencing will only be allowed on existing systems if the number of paddocks is increased or acreage is added to the current system. Cost-share will be provided based upon the least-cost wire component which in most cases will be high tensile electric; however other types of wire may be installed. The number of strands of wire allowed must be appropriate for the livestock species the system is currently being used/built for. Cost-share is allowed for an offset wire on perimeter fencing if required. Fencing items eligible for cost-share to construct deterrent fencing and cross-fencing for a livestock grazing system in the \$60 maximum per acre include: labor, posts, wire, gates, high tensile electric fence, energizers, energizer installation and accessories and water gap components. Grazing school is required to participate in grazing system practices with the soil and water conservation district, please see district personnel for dates available.

DSP 3.4-Grazing System Lime - Cost-share assistance to provide up to 75 percent cost-share for a one-time application of limestone according to soil test recommendations, up to a maximum of \$50/per acre limed. The paddocks need to be part of an existing grazing system which meets the Standards and Specifications for Prescribed Grazing. Lime may be applied in a split application if a large amount of elective neutralizing material (ENM) is needed. The surface application of limestone must be in accordance with minimum cover improvement needed as determined by a soil test. Eligible items for cost-share include lime, hauling and spreading. Grazing school is required to participate in grazing system practices with the soil and water conservation district, please see district personnel for dates available.

DSP 3.5-Grazing System Seed - Cost-share assistance to provide up to 75 percent cost-share for a one-time interseeding of legumes in paddocks within a qualified grazing system up to \$40/per acre seeded. The acres to be considered for the per-acre maximum will only be the acres which are seeded. The paddocks need to be part of an existing grazing system which meets the Standard and Specifications for Prescribed Grazing. Prior to planting legumes, the site will be fertilized to meet the requirements of the soil test the year of the seeding and two years following. Nitrogen, phosphorus, potassium and lime are not eligible components under the DSP 3.5 Seed practice. Eligible items for cost-share include legume seed, inoculation, no-till drill and broadcasting. Grazing school is required to participate in grazing system practices with the soil and water conservation district, please see district personnel for dates available.

Woodland Erosion

C100 – Timber Harvest Plans – Proper design and implementation of management practices on logging roads, stream crossing, log landings and other measures during timber harvest where landowner is planning timber sale. Incentive payments may apply.

DFR4 – Forest Plantation – Cost-share assistance is available to convert marginal soils to less intensive use and to reduce soil erosion from agricultural sources. Cost-share is authorized for seed or seedlings, seedbed preparation, necessary herbicides, and seeding or planting. Cost-share for fencing is included to protect newly planted forest from livestock. Minimum size of planting is 1 acre.

N472—Livestock Exclusion (Fence) - Cost-share assistance for fencing existing woodland areas, streams, existing ponds or sensitive areas where vegetation, soil condition and water quality are in need of protection from livestock.

N655 – Restoration of Skid Trails, Logging Roads – Cost-share assistance is available for the treatment of active gulley erosion on existing skid trails, logging roads, stream crossings, and log landings that have been improperly constructed during a timber harvest. Maximum payment shall not exceed \$1500 per gulley and has a landowner maximum of \$6000 for this practice.

The Bollinger County SWCD operates on a first-come, first-serve process and there are existing waiting lists for some practices. Technical assistance and site determinations are available to landowners not interested in cost-share. If you would like more information concerning our programs or have an area on your farm that needs evaluation, please call 573-238-2671 ext. 3.

Prescribed Fire Workshops

When: Tuesday, August 6, 2013 from 5:30 - 8:30 p.m.

Where: Black River Electric Coop
2600 Highway 67
Fredericktown, MO 63645



Presented by: Missouri Department of Conservation

Prescribed fire is a low cost way for landowners to manage grasslands, CRP and old fields for forage production and/or improve wildlife habitat.

This workshop will include classroom discussions on methods, equipment, safety, and why and when you would use fire as a management tool. Emphasis will include how to conduct a safe and effective burn to control sprouts, encourage beneficial plants and create diverse wildlife habitat. Participation will qualify landowners to have a prescribed burn plan prepared for their fields and use available loan equipment.

To register for the workshop please contact the Missouri Department of Conservation at 573/223-4525. Registration required.



TO REMOVE YOUR NAME FROM OUR MAILING LIST OR IF YOU HAVE ANY QUESTIONS PLEASE CALL 573-238-2671 EXT. 3.

Equipment Rental

The Bollinger County SWCD & Missouri Department of Conservation have the following equipment available for completing your farming practices:

7' No-till Drill—\$10.00/acre

10' No-till Drill—\$10.00/acre

Pasture Renovator—\$6.00/acre

Root Plow—\$10.00/day

Wildlife Food Plot (1 row) Planter

Burn Spray Trailer

Southeast Region Management Intensive Grazing School

Management Intensive Grazing School will be offered September 18 & 19 in Jackson, Missouri. Classes will begin at 8:00 a.m. each day. A field visit is planned for the second day, so please dress appropriately. The Grazing School is presented by Natural Resource Conservation Service (NRCS), University of Missouri Extension, and the Missouri Forage and Grassland Council.

Featured Topics:

- Art and Science of Grazing
- Evaluation of Farm Resources
- Watering Systems
- Glazier's Arithmetic
- Pasture Evaluation
- Fencing Systems
- How to Graze Year-Round
- Economics of Grazing Management
- Forage Diversity and Plant Growth
- Matching Livestock Needs & Nutrition
- Grazing System Layout & Design
- Plant Nutrient Management
- How to Reduce Hay Usage



Grazing school is **REQUIRED** to participate in state cost share grazing practices. Cost is \$90 per person, additional person(s) will be charged \$25 each AND MUST be associated with the farm of the first person. Fees include the Missouri Grazing Manual, grazing stick and meals & refreshments. Enrollment is limited to a first-come, first-served basis. For more information or to RSVP, please contact Selma Mascaro at 573/224-3410 ext. 3.

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To file a complaint of discrimination, write

USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building,

1400 Independence Avenue, SW, Washington, D.C. 20250-9410

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