

Reporter

ST. CHARLES COUNTY

SOIL AND WATER CONSERVATION DISTRICT

Office/Contact Information

The USDA Service Center in St. Peters is closed. A new location near the Hwy 64 and Hwy 70 Interchange is being prepared, but there is no official opening date at this time.

In the meantime, the Farm Service Agency (FSA), the Natural Resources Conservation Service (NRCS) and the Soil and Water Conservation District (SWCD) continue to provide services.

The FSA is working from the Warrenton office and can be reached by calling 636-922-2833, extension 2.

The NRCS and the SWCD are working from the Union office and can be reached by calling 636-922-2833, extension 3. SWCD staff may also be contacted through email:

frankie.coleman@swcd.mo.gov
charles.perkings@swcd.mo.gov
theresa.dunlap@swcd.mo.gov



Look Who's Up!

Box turtles in Missouri typically emerge from hibernation when the soil temperature reaches about 50 degrees. This turtle emerged March 19th, bringing along a soil sample from its burrow.

High Input Costs Add Another Layer of Risk to an Already Uncertain Season

Farming is risky business. Even in a good year, unpredictable variables can topple the best plans.

Farmers use research and experience to lock in input and sale prices, carefully weighing things like market fluctuations, weather extremes, pest and disease possibilities and personal strengths or challenges. They stretch faith along many lines that can balance unexpectedly

toward success or failure. Sometimes the strategies survive the unexpected. Sometimes not. Adding more weight to any of those variables makes surviving the unexpected so much harder.

Rapidly rising input costs, combined with global trade and supply chain disruptions, and rising energy costs, have many farmers facing the possibility that they will take a loss on income this year as

compared to previous years. They are looking for strategies to improve their chances.

Among the variables hitting hard today is the cost of fertilizer. According to all sources, fertilizer prices have doubled compared to prices



Broadcast Fertilizer application. Photo: University of Missouri

See [Fertilizer](#), Pg. 3

SWCD Board Elections Finalized

The recent election of supervisors for areas II and IV were certified at the March 22 meeting of the SWCD Board of Supervisors.

Serving another term in Area IV is Chairman Adam Bonderer. Adam operates a family farm in West Alton where he currently grows corn, wheat, soybeans and hemp.

Newly elected to serve in Area II is Sam Harris. Sam operates the family cattle farm in Wentzville, where he manages a black angus herd.

Board Supervisors manage SWCD employees and make decisions on SWCD cost-share in the county. Their service is voluntary and includes no compensation.

The Board and Staff also said farewell to the senior Sam Harris who served for more than 7 years as a supervisor. He considered every question carefully and helped the district achieve much success during his tenure. Additionally, the staff thanks Sam for the thoughtful way in which he dealt with staff decisions, and for always coming to the meeting with a smile, a joke, or some appropriate sarcasm. Thanks Sam!

Private Lands Conservationists Begin Work in the Area

Joey Rasco is the new Missouri Department of Conservation Private Lands Conservationist (PLC) for St. Charles and Lincoln Counties.

Rasco is originally from the Troy area. He obtained his degree in Fisheries and Wildlife Management from the University



Joey Rasco

Private Lands Conservationists work with private landowners to protect and enhance natural resources while addressing individual conservation-related concerns.

of Missouri.

“I fell into the world of agriculture and worked in agronomy sales, with the majority of that time spent at the Lincoln County Farmers’ Coop”, said Rasco. “More recently I worked as a Precision Ag and Conservation Specialist with Pheasants Forever in North Dakota.

In that role, I worked with farmers to improve their bottom line by implementing conservation practices on under-producing row crop acres.”

Rasco said he spends his free time outdoors: hunting, fishing and spending time with family and friends. He also enjoys cheering on the St. Louis Cardinals and Blues.

“I look forward to working with you to conserve and manage our fish, forest, and wildlife resources,” he said.

If you are looking for assistance on your property in St. Charles County you can contact Rasco at (636) 528-4877 ext. 4111 or at joey.rasco@mdc.mo.gov.

Rachel Williams is the new Missouri Department of Conservation Private Lands Conservationist (PLC) for St. Louis City, St. Louis County, and Jefferson County.

Williams is an Illinois native who crossed the river in 2015 to attend the



Rachel Williams

University of Missouri-Columbia and obtain a degree in Fisheries and Wildlife Management. She began working for MDC after graduation, with her first position as a Missouri Recreational Access Program (MRAP) Field Crew Leader.

“In that position, I had the privilege to work with private landowners to help achieve conservation, recreation, and program goals”, Williams said. “I look forward to continuing my assistance to landowners and communities by providing technical assistance, cost-share opportunities, and step-by-step recommendations to meet land management goals.”

Landowners looking for assistance on their properties in the St. Louis City and County area can call Williams at 636-441-4554, or email her at:

rachel.williams@mdc.mo.gov

St. Charles County Soil & Water Conservation District 636-922-2833, ext. 3

The Reporter Newsletter is published by the St. Charles County Soil & Water Conservation District quarterly, in March, June, September and December.

Writer/Editor—Theresa Strunk

For advertising information or to submit news, call the district at 636-922-2833, ext. 3.

The district is supervised by a board of supervisors made up of farmers from St. Charles County and an University of Missouri Extension representative:

Board of Supervisors

- Adam Bonderer, Chairman
- Paul Kamphoefner, Vice-Chairman
- Vacant, Secretary
- Sam Harris, Treasurer
- James Borgman, Board Member

SWCD Personnel

- Frankie Coleman, Manager
- Charlie Perkins, Technician
- Theresa Strunk, Outreach

NRCS Personnel

- Renee Cook, District Conservationist
- Brandon Rivera, Soil Conservationist
- Michael Edwards, Soil Conservation Technician

The mission of the Soil & Water Conservation District is to conserve the soil and water resources of the county; promote the wise use of these resources through education; protect residents from undue hardship caused by erosion, sedimentation and flooding; protect the agricultural soil base to ensure continued productivity; and preserve the quality of water and water courses within the county.

Farmers.gov Website Offers Valuable Information and Opportunities

Farmers.gov offers a place for farmers to discover financial and educational opportunities to assist with farm management concerns. Federal assistance programs, including the Pandemic Cover Crop Program, are explained; and other tools are available to learn about farm loans, locate a USDA service center, learn about disaster assistance, and discover what conservation concerns may impact the productivity of working lands.

Create a farmers.gov account and you can access secure self-service business tools like managing loans, viewing farm records and eSigning documents.

There are also over 300 stories archived on the site’s blog that discuss everything from soil health, cover crops, water efficiency, energy efficiency, success stories and more.

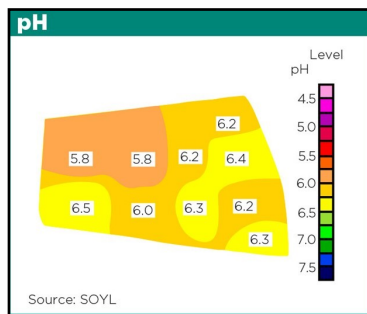
Visit farmers.gov to access the tools.

Fertilizer, from pg. 1

in the summer of 2020. Faced with these record-breaking increases, farmers want to be sure they are getting the most out of their fertilizer applications.

To begin the process of maximizing the benefits of fertilizer application, Missouri University Extension recommends soil testing. Soil testing is an important nutrient management tool because it allows you to put the fertilizer where it is most needed. You may be able to reduce application in some areas, and target specific areas. Or you may find you can draw down on certain nutrients. Variable rate technology allows fertilizer applicators to create soil maps unique to each field in order to put the right rate of nutrients in the right place.

Soil testing can also help determine if there are other issues that decrease plant



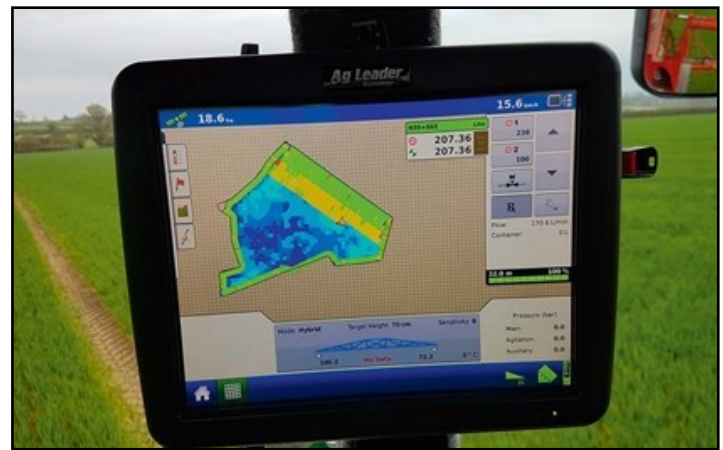
Example of a soil pH map created for variable rate application.

availability of important macronutrients. For example, when pH falls below 6.0, the availability of most macronutrients needed for crop production (such as nitrogen and phosphorous) decreases. Soil testing before applying lime to a field may decrease the cost and allow for the most effective impact.

There are two ways to divide a field into sampling sections

Grid sampling takes a soil sample in the center of equally-sized sections, with a common grid size at 2.5 acres. This method is used to assess field variability. Zone sampling requires extensive knowledge of the history of the field. Zone samples are taken in management zones within the field based on soil type or yield potential. A map can be created for precision application of nutrients according to soil sampling results of zones or grids.

Fertilizer use can also be decreased over time by adding best management practices. Many NRCS and SWCD cost-share programs focus on soil health and nutrient stewardship. Increasing biological diversity in the fields by implementing



An example of a Geospatial Positioning System (GPS) monitor featuring a map of the field.

cover crops and minimizing disturbance can reduce fertilizer inputs without decreasing productivity.

While some small farm operations selling products locally may pass the higher costs to the consumer for farm market items such as apples and pumpkins, most row crop farmers and larger producers are affected by national and international trade markets. Often prices are set and locked, and these farmers absorb much of the increased costs.

If you are interested in cover crops or other conservation practices that improve soil health and plant production, contact Charlie Perkins at 636-922-2833, extension 3, or at charles.perkins@swcd.mo.gov

University of Missouri Conducts Soil and Plant Testing

The Soil and Plant Testing Laboratory analyzes soil, plant, water, manure, compost and greenhouse media. The laboratory provides quality testing and unbiased, research-based recommendations to clients for economically viable and environmentally safe nutrient management practices.

The fee-based services are available to farmers, homeowners, vegetable and fruit growers, lawn and landscape specialists, golf course managers, consultants, researchers and government agencies.

The services include:

- Analyzing soil for nutrient content and fertility status
- Providing recommendations for economical, environmentally safe and balanced fertilizer and lime applications
- Special soil tests for nutrient management plans and for addressing envi-

ronmental issues

- Analyzing plant tissue for field crops, ornamentals, vegetables, fruits and turfs
- Compost testing
- Manure analysis
- Water testing for domestic, irrigation, poultry and livestock suitability

Soil samples

- Minimum sample size for soil: 1 cup
- Send soil samples in proper containers, such as the boxes and bags specifically designed for them. **Soil sample boxes may be obtained free from your local University Extension center.** AVOID glass jars, coffee cans, plastic bags, etc.
- If samples are very wet, allow them to air dry for a day before mailing. Wet samples should not be sent in sample boxes that are plastic lined as they

will not allow soil to dry during transit.

- Copy the serial number and field/sample ID from the sample information form to the soil sample container.

Visit the Soil and Plant Testing Laboratory website to learn more about collecting and mailing samples:

<https://extension.missouri.edu/programs/soil-and-plant-testing-laboratory>

MU Extension offices have soil sample boxes. Extension is located at:
260 Brown Road
St. Peters, MO 63376
636-970-3000
Samples should be mailed to:
1100 University Ave
Mumford Hall Room 23
Columbia, MO 65211

Bats Help Farmers

There are about 14 species of bats in Missouri, and according to the Missouri Department of Conservation, they are the only mammal capable of true flight. During flight, they use echolocation to build a sonic map of their surroundings, accurately determining the distance to objects and locking in on nutritious insects. In one hour, a young bat may eat 600 mosquitoes "on the fly".

According to United States Geological Survey (USGS) scientists, a single little brown bat (*Myotis lucifugus*), measuring about the size of your thumb, will eat 4 to 8 grams of insects each night. That is impressive considering the adult little brown bat weighs just 8 grams itself.

Missouri's big brown bat (*Eptesicus fuscus*) feeds mainly on agricultural pests including beetles, stinkbugs, moths and leafhoppers. According to the USDA, insect-eating bats save billions of dollars each year in pest control. Scientists with the USGS state that the loss of one million bats in the Northeast part of the country probably resulted in between 660 and 1320 metric tons of insects no longer being eaten each year by bats.



Little brown bat
MDC photo

The survival of bats in Missouri is threatened by the disease White-nose Syndrome, named for the white fungus that grows on the muzzle and wings, and that leads to the bat's death before the end of hibernation. Other threats include parasites, pesticides and wind turbines.

Bats roost in the leaves of trees, under loose tree bark and in caves during the day, and some roost in or around barns and homes. Bats head to water for a quick drink before hunting, so most bats roost near a water source as well.

If you have trees, water and structures, there are probably bats nearby! At the end of the day when you are climbing into bed, its comforting to know our bat buddies are diligently scouting for pests in the fields.



Adult lone star tick,
Amblyomma Americanum
Courtesy of the CDC

Protect Your Health by Checking for Ticks

Missouri has three common tick species - Lone star tick, American dog tick and Deer tick. They can transmit diseases to people, pets and other animals. Tick-borne diseases found in Missouri include Lyme disease, Rocky Mountain spotted fever, Bourbon virus and others.

Its important to check over all parts of your body and remove any ticks immediately after being outside. The longer a tick is feeding on its prey, the more likely it is to spread any bacteria, viruses or parasites.

The Missouri Department of Health recommends using tweezers if you find an imbedded tick, lightly pinching (not crushing) the tick as close to your skin as possible and pulling straight out slowly but firmly. Wash and disinfect the area and apply an antibiotic.

After a bite, watch for unusual flu-like symptoms, fever, swollen glands, stiff muscles/joints and/or rashes. Seek treatment as soon as possible.

Avian influenza found in SE Missouri

In early March, the USDA's Animal and Plant Health Inspection Service (APHIS) confirmed the presence of highly pathogenic avian influenza (HPAI) in a flock of commercial broiler chickens in

Stoddard County.

According to the CDC, these viruses occur naturally among wild aquatic birds and can infect domestic poultry. Wild aquatic birds can be infected with avian influenza A viruses but may not get sick. However, it is very contagious among birds, and can sicken and even kill certain domesticated bird species, including chickens, ducks and turkeys."

Federal and state partners will continue surveillance and testing in the area around the infected flock, as well as looking at live bird markets and migratory bird populations. APHIS recommends all poultry producers, from backyard coops to large commercial productions, to regularly review their biosecurity practices as a good management habit.

To learn more about poultry biosecurity activities, or to see the list of current avian influenza cases, visit: <https://www.aphis.usda.gov/aphis/home>

Tar Spot is an Emerging Threat to Corn

Tar spot of corn, *Phyllachora maydis*, has been confirmed in nine Northeast Missouri counties and continues to be detected in new counties each year since 2019, according to University of Missouri's Integrated Pest Management (IPM) researchers.

Tar spot causes black, tar-like spots (stroma) on the leaf, sheath, and husk surfaces. Stroma can be surrounded by tan, lesion-forming "fisheye" shapes. The spots reduce the area available for effective photosynthesis during critical grain fill stages, and this leads to premature plant death. According to IPM researchers, field losses as high as 40% have been reported in some Midwestern fields.

Researchers are working to determine what commercially available corn lines may offer resistance to tar spot.

Tar spot is found in all counties in Iowa and most counties in Illinois as well as in other north central states.

Knowledge is Power when Optimizing Forage

The more you know, the more you grow! SWCD Technician Charlie Perkins has been visiting farms and anticipating the first bright blades of spring; and he encourages livestock farmers to seek out information on optimizing production in light of rising input costs.

By Charlie Perkins, Technician

“Walking pastures in the early weeks of March was not very exciting in the sense that only a few plants were starting to turn green. I know that early April will be a world of difference even in the same fields. Clover and grass will be growing faster than a properly stocked group of animals can consume. A lot of livestock operations calve, lamb, or kid in the spring. The adult female animals need a level of nutrition that is unprecedented for proper growth of the offspring and maintenance of the adult females. Why not improve management of the pasture to optimize production?”

University of Missouri Extension has a guide named EQ 379, *Managed Grazing Systems and Fencing for Distribution of Beef Manure*. Also this spring, May 3-5, is a Grazing School at St. Clair, Missouri. The Southwest Missouri Spring Forage Conference was held earlier in February, but the proceedings are listed on the website. Go to Southwest Missouri Spring Forage Conference and click on “proceedings”, and choose the 2022 proceedings.”

Charlie also spoke with the MDC Private Lands Conservationist Joey Rasco who provided some information on converting pasture with fescue or other undesirable vegetation to warm season grasses and forbs. Below Rasco has outlined the typical steps:

Scope of Work: The most important step to ensure a successful planting is to eliminate the existing vegetation and prepare a seed bed which will allow good soil-to-seed contact. Tillage of the soil is not recommended because it brings more weed seeds to the surface.

Step 1: Mow, if needed, to height of approximately 6 inches to remove excess plant residue and ensure maximum exposure of new plant growth to herbicide. This should be done approximately 30 days prior to herbicide application.

Step 2: Apply herbicide March/April/May when cool season grasses (e.g. fescue) are 8-10” tall and actively growing but not during dry spell. Spray the following in 20 gallons of water per acre:

- 1 qt./ac. glyphosate (or .8 qt./ac. sulfosate)
- 6-7 oz. non-ionic surfactant
- 17 lb. ammonium sulfate/100 gal.
- 7 oz/acre Plateau herbicide (spring only and optional)

Step 3: If working with MDC, call the area PLC after you have completed herbicide application and the grasses are showing signs of dying. They will come out and check.



Grazing School Planned in St. Clair

A Management Intensive Grazing School will be held **May 3-4** in St. Clair, sponsored by the Franklin County SWCD, the USDA NRCS, and University of Missouri Extension. Topics include: extending the grazing season, weeds in pasture, basic plant growth, forage quality, fencing, watering and much more.

A grazing school is required for some grazing cost-share assistance programs. Programs available include the SWCD DSP-3 Planned Grazing System which includes components for water development, water distribution, interior cross fence, lime and interseeding legumes, and the NRCS EQIP, Environmental Quality Incentives Program which is aimed at overall best management of current resources on the farm and includes components necessary to a grazing system.

The cost for the 3-day course is \$125 for one person or \$180 for two; and includes lunches and refreshments each day. The second and third day include farm tours.

Registration is required by **April 15**, and is limited to 25 people. To register, provide your name, address, city, state, zip and phone number, along with number of participants and check made payable to Franklin County SWCD to: Franklin County SWCD, 1004 Vondera Ave., Union Mo., 63084. For more information, call 636-583-2303, extension 3096, or email lori.nowack@swcd.mo.gov.

The school will be held at the St. Clair KC Hall, 204 Commercial Ave.

[Continued on next page...](#)

Step 4: If necessary, mow in August/September to reduce plant residue and ensure maximum exposure of new growth to 2nd herbicide treatment.

Step 5: Re-treat with same herbicide mix as above in late fall (October through early November) when cool autumn temperatures stimulate growth of fescue/brome. Glyphosate applied in the fall will control 95% of tall fescue. As with the spring application, grasses should be at least 8-10" tall and actively growing at the time of the application. Do not apply during a dry spell and be sure to spray herbicide as close to field edge as possible.

Step 6: Prepare site for seeding. The two basic methods are broadcasting and drilling. If broadcasting, the site must have a minimum of 50% bare soil for good seed to soil contact. The best way to prepare for broadcasting seed is to burn prior to seeding. If you cannot burn, then wait 60 days or more after herbicide application for dead plants to begin to break down. As the plant matter breaks down it will more easily break apart when a harrow or light disk is run across it. If using a disk, do not disk deeper than one or two inches. The goal is to provide bare soil for seed to soil contact. Deep disking will bring up more weed seeds and increase potential for erosion especially on slopes. If drilling, drill into dead plant material. The caution with drilling is to not get the seed too deep. This seed should not be planted deeper than 1/8 inch.

Step 7: Contact seed vendors in November to get quote on seed. If you are working with MDC, they will provide seeding specifications and a Wildlife & Pollinator Plantings Job Sheet to provide to the vendor.

Step 8: Drill or broadcast seed sometime between December 1 and not later than February 29. The closer to December 1 the better.

Step 9: THE ENTIRE FIRST GROWING SEASON, YOU MUST KEEP THE PLANTED AREA CLIPPED BELOW 12 INCHES TO PREVENT WEEDS FROM SHADING OUT THE NEWLY GERMINATED SEEDLINGS! If you do not follow this step you risk failure of the planting. If you allow the vegetation to get taller than 12 inches before cutting, you could smother your new plants with the clippings. Set mower between 6 – 8 inches and do not mow shorter than 6 inches!

Step 10: Mowing may be necessary for the first ½ of the second growing season.



County's Ordinances Protect Vegetation Along Streams

April showers bring May flowers, but they also bring increased volumes of water to area creeks and rivers. Depending on the amount of the rain, and the development within the watershed, those rains can also cause an increased velocity. More volume and more velocity equals increased erosion and loss of riparian trees.

If your land includes a stream or a natural watercourse left in its natural state, then by ordinance of St. Charles County there is to be no clearing, grading, construction or disturbance of vegetation except as permitted by county code (section

405.5026).

Vegetated buffer widths along the main branches are 50 feet, beginning at the edge of the bank. The main branches in the county are Dardenne Creek, Peruque Creek, Femme Osage Creek, Big Creek and McCoy Creek. All other natural watercourses in the county require an undisturbed 25 foot vegetated buffer.

The ordinance also regulates the removal or installation of berms and dams, both of which need approval by the county.

Vegetated buffers (also called riparian corridors) provide environmental protection and resource management benefits to not only your land, but also to all who live in the county. Those benefits include:

- Reducing the likelihood of infrastructure and property damage and minimizing the need for costly engineering solutions to erosion problems
- Providing infiltration areas for storm water runoff
- Providing tree canopy, organic matter, and habitat for wildlife
- Reducing flood impacts

A Natural Watercourse
The county ordinance describes natural watercourses as those that are depicted on the most current United States Geological Survey 7.5 Minutes Series (Topographic) Maps must be left in their natural state.

- Reducing sediment transportation
- Removing pollutants from storm water
- Slowing the velocity of floodwaters
- Stabilizing stream banks
- Furnishing recreational opportunities
- Minimizing encroachment

Check county ordinances before making any changes along a stream or natural watercourse on your property.

If you have livestock that enter a stream, contact the Soil and Water District to discuss alternate watering sources and cost-share opportunities. Call 636-922-2833, extension 3, and ask for Charlie.

