ConservatioNews

Harrison County Soil & Water Conservation District

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Hiller Park Becomes First Public Wetlands Pollinator Garden in Mississippi

Mark W. LaSalle, Ph.D., LaSalle Consulting LLC

A unique kind of pollinator garden was dedicated at Hiller Park in Biloxi on Friday, July 10th. The brief ceremony also brought together a rich diversity of partners, all working together to help pollinators, the environment, and people that can learn more about how we are all connected to our natural world.

The Mississippi Urban Forest Council coordinated the establishment of this unique garden through a grant provided by the USDA Natural Resources Conservation Service's (NRCS) Regional Conservation Partnership Program: focused on establishing sustainable pollinator gardens in urban and rural settings. The placement of this garden within the park represents a unique opportunity to realize multiple benefits for pollinators, the environment, and the City of Biloxi, as the site's caretaker.

The 1,400 square foot garden was established in a grassy wetland swale that receives stormwater runoff from a children's splash pad and adjacent uplands. Benefits realized by the restoration of this site to more natural conditions, through the planting of wet-loving trees, shrubs, and herbaceous plants, include:

- The reduction of landscape maintenance (mowing) that was complicated by the wet conditions,
- Support for a wide range of pollinators, as sources of nectar from flowers, as host plants for caterpillars, and as nesting sites for pollinators,
- Enhanced treatment of runoff from the splash pad and adjacent upland areas, thereby improving water quality to the nearby waterbody, Biloxi Back Bay. *Continued on page 3*

Pass Christian Public Library Butterfly Garden and Monarch Waystation

The Butterfly Garden and Monarch WayStation is located at the Pass Christian Public Library and was established last fall with startup funds from the Harrison County Soil & Water Conservation District. The garden not only beautifies the public library but also adds educational value for the community (both children and adults).

With the Pass Christian Garden Club, the garden is used for children's programs throughout the year. The City of Pass Christian is located on the Mississippi Gulf Coast and is on the migration route for Monarch butterflies. This special garden would not only attract and sustain butterflies and pollinators in general, but will also become a certified Monarch WayStation. Plantings selected for the garden benefit butterflies (especially Monarchs) and other pollinators. The emphasis is on using native species for hardiness. The Butterfly Garden is a work in progress.

NRCS Welcomes Soil Conservation Technician

Tristan Jamieson, a native of Bay St. Louis, recently joined the NRCS team in Harrison County. Tristan is a graduate of the University of Southern Mississippi with a B.S. in Biological Sciences with an emphasis in Environmental Biology. He is currently enrolled at the University of Idaho in the Master of Natural Resources Fire Ecology and Management program. Needless to say, he was ready to hit the ground running when he joined NRCS in June. He has been busy training with NRCS Supervisory District Conservationist Tyree Harrington.

Tristan has worked with various conservation agencies including U.S. Forest Service, National Park Service, Bureau of Land Management, Audubon Mississippi, U.S. Fish & Wildlife Service, and The Nature Conservancy. His past work experience as a wildlife biologist, botanist, wildland firefighter, coastal steward, and wetland scientist have taken him to 18 states. For USFS, he was a wildlife biology intern on the DeSoto National Forest Chickasawhay Ranger District and also spent a season on the Bureau of Land Management Jackson Interagency Hotshot Crew.

He most enjoys working with the Longleaf Pine Savannah ecosystem, which incorporates his favorite resource management tool, prescribed fire, with his favorite species being the carnivorous plants of the genus Drosera.

Welcome to the team, Tristan. Your knowledge and experience in natural resources will surely be a benefit to our landowners and farmers.

One touch of nature makes the whole world kin.

William Shakespeare

Participating in the Hiller Park pollinator garden dedication are (l-r): NRCS Clarence Finley, Commissioner Thad Anderson, NRCS Dennis Jones, NRCS Tyree Harrington, Commissioner Patrick Chubb, City of Biloxi Cheryl Bell, MUFC Donna Yowell, and MRGF Martha Boyce.

NRCS Soil Conservation Technician Tristan Jamieson was on the planting team at the Hiller Park pollinator garden.

Hiller Park

Continued from page 1

The interpretive signage placed at this location will serve to educate visitors about the value of this wetland raingarden and the importance and value of pollinators to the environment. This site will also host educational workshops on these same topics for years to come.

The Mississippi Urban Forest Council appreciates its many partners in this project beginning with the City of Biloxi. Financial and technical support was provided through the USDA Natural Resources Conservation Service (NRCS). Special thanks to partners Harrison Count Soil & Water Conservation District, Harrison County Master Gardeners, and the Mississippi Renaissance Garden Foundation (MRGF).

Photo from page 1: It was a real team effort in planting the pollinator garden at Hiller Park. Harrison County Master Gardeners Butch Cummings and TJ Testman, NRCS Tyree Harrington and Tristan Jamieson, Mark LaSalle and Earth Team Volunteer Cheryl High did a great job of planting Sweetbay Magnolia, Swamp Black Gum, Groundsel, Buttonbush, Virginia Willow, Swamp Titi, Joe-Pye Weed, Swamp Sunflower, Cardinal Flower, and Stokes Aster along the garden.

Commissioner's Policy Corner

USDA Accepting Applications for Mississippi Hemp Production Licenses

Andy Gipson, MDAC Commissioner

The Mississippi Hemp Cultivation Act (Senate Bill 2725) was signed into law on June 29, 2020. This act legalized the cultivation of hemp under a state plan to be created and implemented by the Commissioner of Agriculture and Commerce. Although the act allowed for a state hemp cultivation program, the necessary funding to implement the state program was not appropriated by the Mississippi Legislature.

"I appreciate the Mississippi Legislature providing farmers with access to a new agricultural commodity. However, the economic stress of COVID-19 made it difficult for the Legislature to find a way to fund the program. As a result, the Mississippi Department of Agriculture and Commerce cannot implement a state hemp program. Should the Legislature decide to fund a hemp program, MDAC will request to be the licensing agency," said Mississippi Commissioner of Agriculture and Commerce Andy Gipson.

Gipson continued, "However, I have been in constant communication with the USDA as we prepared to implement a hemp program for Mississippi. In late June, I notified the USDA that the Mississippi Hemp Cultivation Act had passed, but without funding for the program. I requested the USDA accept applications and issue hemp grower licenses for Mississippians under the USDA plan. The USDA has agreed to this plan, and Mississippians can from August 1 through October 31 submit applications for a hemp license from the USDA under the U.S. Domestic Hemp Production Program."

Guidance for producers wanting to obtain a USDA hemp production license can be found at ***ams.usda.gov/rules-regulations/hemp/information-producers***. Applicants must provide a copy of a Federal Bureau of Investigation (FBI) criminal history report. An applicant will not receive a USDA hemp production license if the applicant has been convicted of a felony related to a controlled substance in the last 10 years.

Due to remote work conditions in Washington, D.C., the USDA strongly encourages all applications be sent electronically to ***farmbill.hemp@usda.gov*** for expedited processing. Alternatively, completed applications can be mailed with a copy of the FBI criminal history report to

USDA/AMS/Specialty Crops Program, Hemp Branch
470 L'Enfant Plaza S.W., Post Office Box 23192,
Washington D.C. 20026.

All requirements and information related to the USDA Domestic Hemp Production Program may be viewed at ***ams.usda.gov/rules-regulations/hemp***. If you have questions, please email ***farmbill.hemp@usda.gov*** or call 202-720-2491.

Coastal Conservation and Restoration Program

Eric Sparks, Ph.D., Mississippi State University

A multidisciplinary team of wetland ecologists and educators are working together to implement a wetland nursery and education program for high schools in coastal Mississippi. Disconnection from nature is apparent along coastal Mississippi, where many children live within miles of pristine natural landscapes, yet rarely, if ever, visit or learn about them. To build resilient and sustainable communities, it is necessary to improve scientific and environmental literacy and promote stewardship of natural ecosystems. The objectives are to

- Develop a curriculum focused on growing wetland plants and the importance of protecting coastal wetlands,
- Establish wetland nurseries at three high schools in coastal Mississippi to pair with the curriculum,
- Take students on field trips to restoration sites to plant their nursery grown plants and obtain first-hand restoration experience, and
- Facilitate related student-designed research projects.

The main goal of this project is to carry out a cost-effectiveness analysis of how various marsh restoration designs ranging in plant density, platform slope and sediment grain size perform in terms of reducing runoff pollution under current and elevated sea level.

With this information we will build a decision support tool to help managers maximize the reduction of runoff nutrient pollution through marsh restoration given their specific time and budget constraints. To accomplish this we are working closely work with an advisory panel comprised of environmental officers and managers representing a wide variety of agencies that deal with issues of coastal pollution and wetland restoration.

Through this intense collaboration and training, the Panel are vested in the design, development and applications of the decision support tool. Most importantly, through their professional networks they will disseminate and instruct others how to use the tool, thereby having far-reaching implications for the protection and restoration of wetlands and applications for environmental betterment throughout the Gulf of Mexico and other US coastal areas. This project is funded by the EPA Wetlands Program.

Visit ***coastal.msstate.edu/ccr*** for more educational programs that Mississippi State University's Coastal Research and Extension Center is involved in.

MACD Endowment Fund 2020 Scholarships

The Mississippi Association of Conservation Districts (MACD) Endowment Fund is offering FIVE $5,000 scholarships to Mississippi sophomores, juniors, seniors, and graduate students currently enrolled in a college or university in the state of Mississippi.

The scholarship is open to students pursuing a Natural Resources field of study which includes but is not limited to: Agribusiness, Agricultural Engineering Technology and Business, Agriculture Information Science, Agronomy, Animal and Dairy Sciences, Horticulture, Landscape Architecture, Landscape Contracting and Management, and Poultry Science.

Applications will be evaluated based on student's grade point average, activities and leadership qualities, financial need and supporting materials. MACD is a non-profit organization made up of the state's 82 Soil and Water Conservation Districts who promote the conservation of Mississippi's natural resources trough education and outreach.

The MACD scholarship deadline is October 1, 2020. To receive an application, contact Beth D'Aquilla at the Harrison County Soil & Water Conservation District office at ***beth.daquilla@ms.nacdnet.net***.

In every walk with nature, one receives far more than he seeks.

John Muir

Pollinators, A Vital Part of Our Lives

Joe Buckley, Commissioner

We all know that honeybees do more than make honey. They also pollinate plants as they gather pollen to feed their brood. However, there are many other insects that do this same job. The broad term of pollinators includes about 4,000 species of native bees in North America. These bees were doing their own pollination long before European settlers arrived in the early 1600's and introduced European honeybees to America. Many of the native bees actually do a better job of pollination than their European counterparts.

Along with native bees are flies, wasps, butterflies, and others who work in a symbiotic relationship with plants to pollinate both crops and gardens along with trees, bushes, grasses, and wildflowers.

There are plenty of reasons to protect native bees. Here are a few ways that the property owner can help. First of all, know that in most cases bumblebees are not aggressive. Most live solitary lives and those that have colonies have only dozens instead of thousands of occupants as in the case of honeybees. They seldom sting as they do not have large hives to protect.

By planting a diverse array of native plants, the landowner can provide pollinators a good habitat. Another way to help pollinators is to go easy on chemicals in the yard and garden. While many will recommend using pesticides to rid an area of

unwanted bugs, overuse can wipe out beneficial insects. Insects that are controlling harmful pests can also be killed by improper use of pesticides. Never apply pesticides to a garden while pollinators are working the flowers.

I hope that you can help our little neighbors out with some of these land stewardship practices. Most fruits and vegetables need pollinators and we need them for healthy living.

Lime/Litter Spreader Available for Lease

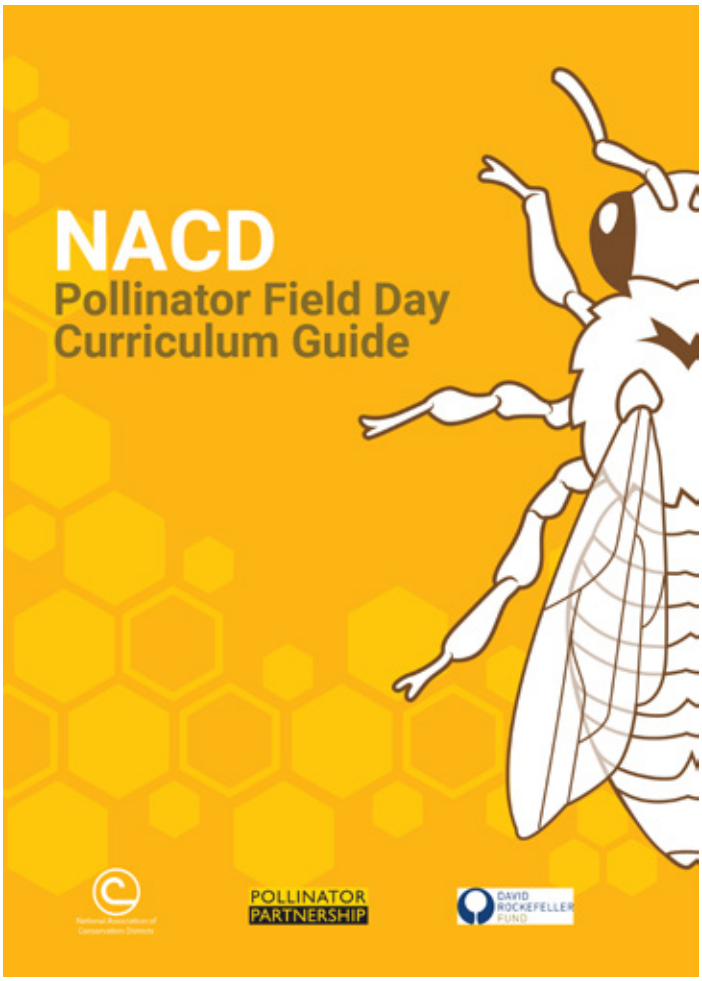
The District has available a CL-HYD-PUL Adams 16-ft pull type Lime/Litter Spreader with lime baffle and 4" center double bar kit for lease. Equipment is available to lease by Harrison County landowners by filling out a lease agreement and making an equipment deposit. Rental fee is $5 per acre. Call 228-234-1779 to schedule use. Pickup and dropoff at Second Chance Farm, 16241 Northrup Cuevas Road, Lizana. Lease agreement form is available at ***hcswcd.co.harrison.ms.us***.

Pollinator Field Day Curriculum Guide

National Association of Conservation Districts (NACD) has released a first-of-its-kind guide which was developed through the support of the David Rockefeller Fund Pollinator Education Initiative Grant and the Pollinator Partnership, and provides interactive learning experiences for grades K-8 by engaging them in habitat-focused, pollinator-themed activities for the classroom and outdoors.

Pollinators like bees, birds and bats can do so much for ecosystems and benefit people. Imagine a world without any pollinators! No bumblebees or hummingbirds or even wasps to carry pollen from one plant to the next. While we may not notice their hard work, we would certainly notice it if they were gone. Without pollinators, we would also have a hard time meeting the demand for food around the world.

This is why teaching youth about the importance of pollinators and how to protect them is crucial. Educators and parents who are looking for fun and hands-on ways to engage students in pollinator activities can access our Pollinator Field Day Curriculum Guide. This K-8 curriculum provides a variety of resources for you to explain the connection between pollinators, plants and people. With the pollinator guide, students will learn about the importance of pollinators and plants, as well as have access to pollinator activities that can be done right in the classroom or at home. Browse through the multiple pollinator lessons and stations, crossword puzzles and challenge spelling, coloring pages and much more.



The guide is an excellent resource and can be downloaded for free as a PDF, in color and black & white, English and Spanish translations from the NACD Conservation Education Hub at ***nacdnet.org***.

Seed Grain Drill Available for Lease

The District has available a 7 ft Sunflower Seed Grain Drill for lease to Harrison County landowners. To lease the grain drill, a lease agreement and equipment deposit must be made. Rental fee is $5 per acre. For details and to schedule use call 228-234-1779. Pickup and dropoff at Second Chance Farm, 16241 Northrup Cuevas Road, in Lizana. Lease agreement form available at ***hcswcd.co.harrison.ms.us***.

Seasonal High Tunnel Initiative

Tyree Harrington, NRCS District Conservationist

A High Tunnel System, commonly called a "hoop house," is an increasingly popular conservation practice for farmers, and is available with financial assistance through the Environmental Quality Incentives Program (EQIP). With high tunnel systems, no summer is too short or winter too cold because high tunnels:

- Extend the growing season
- Improve plant quality and soil quality
- Reduce nutrient and pesticide transportation
- Improve air quality through reduced transportation inputs
- Reduce energy use by providing consumers with a local source of fresh produce

High tunnels protect plants from severe weather and allow farmers to extend their growing seasons – growing earlier into the spring, later into the fall, and sometimes, year-round. And because high tunnels prevent direct rainfall from reaching plants, farmers can use precise tools like drip irrigation to efficiently deliver water and nutrients to plants. High tunnels also offer farmers a greater ability to control pests and can even protect plants from pollen and pesticide drift.

A number of soil health practices can be used in high tunnels, including cover crops and crop rotations, which also prevent erosion, suppress weeds, increase soil water content, and break pest cycles.

Perhaps the best thing about high tunnels is that they help farmers provide their communities with healthy local food for much of the year – food that requires less energy and transportation inputs. Supporting practices may be needed to ensure that resource concerns associated with implementing and managing high tunnel systems are addressed. These conservation practices may include:

- Critical Area Planting
- Diversion Grassed Waterway
- Mulching
- Irrigation System, Micro-irrigation
- Subsurface Drain
- Surface Drainage, Field Ditch
- Underground Outlet

For more information, contact Tyree Harrington at (228) 860-1363 or ***tyree.harrington@usda.gov***.

MSU Extension Horticulture Hub

Hard copies of the 2020 Southeastern U.S. Vegetable Crop Handbook are available online at ***vegcrophandbook.com***. Those involved in commercial vegetable production in Mississippi can request a free copy of the handbook by sending an email request to ***janie.ross@msstate.edu.*** This handbook represents a joint effort among Extension Specialists and Researchers from 12 land-grant universities in the U.S. who work in the area of vegetable production.

Vegetable production information for the home garden is available in the Garden Tabloid at ***extension.msstate.edu*** where there are a wide array of topics such as Grow Your Own Vegetables, Decide What You Want to Plant, Choose an Ideal Garden Site, and Garden Soil Prep. There are also several ideas in the Sample Garden Plan chapter.

For more information contact Harrison County MSU Extension Agent Tim Ray at ***tim.ray@msstate.edu*** or (228) 865-4227.

Cogongrass Application

Mississippi Department of Agriculture & Commerce
Landowners with cogongrass may contact the MS Dept. of Agriculture & Commerce, Bureau of Plant Industry, to fill out a form to receive chemicals to control cogongrass. Our south Mississippi contact is Keith Pouncey at ***keithpouncey@hotmail.com*** or visit ***mdac.ms.gov*** for the form. On the form you will indicate how many acres of cogongrass you have on your pasture, pine plantation, mix forestry, hard-wood, or other agriculture land. Always follow label directions when applying herbicides.

Chinese Tallow Tree Application

Mississippi Coastal Plains RC&D
Landowners with Chinese Tallow (popcorn) trees may contact the MS Coastal Plains RC&D to fill out a form for chemical to control this invasive species. Our south Mississippi contact is Patty Rogers at ***patty.rogers@live.com***. On the form you will indicate how many Chinese Tallow trees are on your property.

If in addition to Chinese Tallow trees, you also have a cogongrass infestation, list the number of acres of cogongrass. Chinese Tallow tree treatment recommendations – 1 ml undiluted or 2 ml diluted 50% solution per incision in trunk of tree at diameter at breast height. One quart will treat approximately 400 trees @ two hacks per tree. Cogongrass treatment recommendations - ½ solution of Polaris AC Complete. Always follow label directions when applying herbicides.

Planting A Fall Garden

Eddie Smith, Ph.D., Mississippi State University

If you haven't tried a fall garden, consider putting one in now because it can be the best garden you have. Many vegetables are well adapted to planting in the summer for fall harvest, which will extend the gardening season so you can continue to harvest fresh produce after earlier crops have finished producing.

Growing a productive fall vegetable garden requires thoughtful planning and good cultural practices. August and September are the main planting times for a fall garden.

Depending on your specific location, you may need to adjust the planting dates. For a more accurate planting schedule, determine the average date of the first killing frost in the fall, and then count backward from the frost date, using the number of days to maturity to determine the best time to plant in your area.

Many cool-season vegetables, such as carrots, broccoli, lettuce, cauliflower, and Brussels sprouts, produce their best flavor and quality when they mature during cool weather. In Mississippi, the spring temperatures often heat up quickly making vegetables such as lettuce and spinach bolt or develop a bitter flavor when they mature during hot summer weather.

It is not uncommon for insects and diseases to be more abundant in the fall, mostly as a result of a buildup in their populations during the spring and summer. You may be able to keep these pests at tolerable levels, if you follow a few strategies. Strive to keep fall vegetables healthy and actively growing because healthy plants are less susceptible to insects and diseases. Check the plants frequently for insect and disease damage. If significant damage is detected, use an approved pesticide. Certain vegetables, such as squash, corn, and cucumbers, are especially insect- and disease-prone during late summer and fall. For more information call (601) 403-2280 or email ***eddie.smith@msstate.edu***.

Regardless of geographical region or culture, gardening is perhaps the most common and shared experience of nature.

S. Kelley Harrell

NRCS to Continue Conserving The Gopher Tortoise and Its Critical Habitat

Laura Anderson, State Public Affairs Specialist

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) today released its new 5-year plan to conserve the Southeast's threatened gopher tortoise by focusing on the conservation and restoration of its key habitat - longleaf pine forests, and fire will play a leading role in the efforts. The initiative has already conserved 274,302 acres of gopher tortoise habitat since 2017, and the new plan's goal is to conserve an additional 975,687 acres by the end of 2024. The gopher tortoise is one of nine species to represent the USDA's premier wildlife conservation program - Working Lands for Wildlife (WLFW).

"With Working Lands for Wildlife, we're able to develop successful solutions for both wildlife and landowners," said Kurt Readus, state conservationist. "In the case of the gopher tortoise, it's about much more than this one species, since so many others, like insects, rabbits, and quail, greatly benefit from the restoration of the tortoise's habitat."

The fate of the gopher tortoise is linked to habitat quality, and efforts to conserve habitat on private lands will be critical to its continued survival. WLFW conservation actions are based on resource needs and generally prioritize the following:

Promoting increased use of prescribed burning

- Improving vegetation management to include both timber stand and understory management
- Establishing longleaf pine stands through plantings
- Supporting prescribed grazing to manage gopher tortoise habitats in pine savannas and grasslands

WLFW worked with partners in 2016 to identify priority areas for conservation based on where gopher tortoises were known to occur, appropriate soils, and vegetation. Knowing these priority areas is critical for strategic conservation action. In 2017, NRCS released the very first implementation plan for WLFW-gopher tortoise, which set a goal of 205,000 acres of conservation practices to support gopher tortoise recovery but exceeded it by the end of 2018. By 2019 their implementation reached more than 274,300 acres of gopher tortoise habitat.

This new Gopher Tortoise FY 2020 – 2024 Implementation Strategy will build upon those successes and prescribed burning will be the dominant conservation action in this new strategy to recover quality habitats and promote healthy native forest stands. Prescribed burns every 2-3 years are critical to creating and maintaining gopher tortoise habitat needs in pine forests - they are an effective way to control understory competition, promote soft forage plants and allow young gopher tortoise to easily move through the forest. NRCS estimates 740,950 acres of prescribed burns over the 5-year term of this plan.

As longleaf pine stands mature, timber thinning harvests will be critical to allowing individual trees room to grow and to bring sunlight to the forest floor. Sunlight promotes growth of soft ground vegetation for gopher tortoise grazing and it incubates their nests. The estimate for forest stand improvement is 89,754 acres by 2024.

Other vegetation management practices, such as brush management and invasive species control, will contribute about 30,081 acres to the next 5-year milestone goals. Prescribed grazing management will contribute another 48,474 acres of habitat by 2024. Prescribed grazing was included in the previous implementation strategy for gopher tortoise but was limited to Florida. Now this practice will be used to improve gopher tortoise habitats in Louisiana and Mississippi as well.

Also included in this new implementation strategy are conservation easements totaling 27,500 acres to be secured in Florida, Alabama, and Georgia.

This strategy represents a sustained 13-year effort by USDA to promote restoration of the longleaf pine ecosystem and recovery of its keystone species the gopher tortoise. Learn more about USDA's wildlife conservation efforts with Working Lands for Wildlife. For more information contact your local NRCS office.

If conservation of natural resources goes wrong, nothing else will go right.

M. S. Swaminathan

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The Harrison County Soil and Water Conservation District holds a regular monthly board meeting on the first Thursday of each month at 11:30am. This board meets to administer the program of soil and water conservation in Harrison County.

For more information about any District projects and services, please call us at 228-831-1647 or visit us at ***hcswcd.co.harrison.ms.us***.

Find us on: facebook®

Harrison County Soil & Water Conservation District Mississippi

Conservation at Work Video Series

The USDA's Natural Resources Conservation Service unveiled the *Conservation at Work* video series in early 2020. The series consists of short videos that highlight common conservation practices being implemented around the country.

The videos shine the spotlight on farmers, ranchers and forestland owners from across the U.S. who tell us their conservation stories, and how practices are helping them protect and improve resources and save time and money.

"By sharing the conservation successes of our customers, we hope the videos will help educate our customers and the general public and motivate more farmers and landowners to consider conservation," said NRCS State Conservationist Kurt Readus.

Some of the videos you might find helpful in Mississippi involve High Tunnel, Grade Stabilization, Cover Crop, Prescribed Grazing and more. The *Conservation at Work* video series can be found on YouTube and ***farmers.gov/conserve/ConservationAtWork***.

Seafood Recipe
Crab Meat Quiche

1 cup	Sour Cream
1 cup	Coarsely Shredded Swiss Cheese
3	Eggs slightly beaten
¼ tsp.	Worcestershire Sauce
¾ tsp.	Salt
1 cup	Flaked Mississippi Gulf Crab Meat
1 cup	Rice uncooked
1	9-inch Pastry Shell (pre-bake 10 minutes)
1	3 ½ oz. can French Fried Onions

Combine sour cream, eggs, Worcestershire sauce and salt. Stir in cheese, crab meat, rice and onion. Pour into pastry shell. Bake 55-60 minutes in 300 degree oven or until set. Serve hot.

Recipe courtesy of MS Dept. of Marine Resources Cookbook.