

Conservation Notes

USDA - Natural Resources Conservation Service - Michigan

September/October 2020



Animals and Plants Restoring the Land Together

Benzie County livestock producer Paul May had a modest goal when he started his operation about 10 years ago.

“My primary motivation was to produce safe food for my family and develop customers, so it didn’t cost us money to do it.”

May raises beef cattle, sheep and chickens on 25 acres he leases outside of Frankfort. Talking to May, one quickly understands that he has a passion for grazing livestock that goes beyond providing food for his family. His grazing operation is also an ongoing experiment based on the holistic, planned grazing practices promoted by the likes of Allan Savory and Joel Salatin. This approach posits that grazing animals and the plants they eat have a symbiotic relationship in nature that can be mimicked in managed grazing operations.

In nature, grazing animals are constantly moving, due to pressure from predators among other factors. The animals convert the nutrients from the grass they eat into a more available form and then move on. Similar conditions can be created by utilizing a prescribed grazing plan, where pastures are divided into smaller paddocks and livestock are regularly rotated from one paddock to another.



Frankfort-area livestock producer Paul May.

May has utilized financial assistance from NRCS to develop a prescribed grazing system on his farm. “I deeply appreciate the mission of NRCS, I didn’t right away. Without NRCS I couldn’t do this.”

NRCS District Conservationist Scott Hughey has worked with May since 2012. Through the Environmental Quality Incentives Program, Hughey helped May receive financial assistance for a livestock pipeline and watering system and forage and biomass plantings. May also enrolled in the Conservation Stewardship Program. Through CSP, May further diversified his pasture with increased legumes, said Hughey. He also completed a pasture condition worksheet that showed an increase in grass stems per acre.

“Changing landscapes is the game I want to get into”, says May. “I painted 25 acres green.” The land was idle for about 10 years before May started his grazing operation and before that it was a cherry orchard. Considering his pasture is on a sand dune, he is pleased with the progress he has made. He hopes to grow twice as much grass in 2021 by delaying grazing this spring.

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State Conservationist's Message

NRCS is often associated with providing technical and financial assistance to agricultural and forest owners. Another role of NRCS is promoting innovation and research in conservation. Innovation and research takes place at all levels at NRCS, from partnerships with our cooperating Land Grant universities to NRCS National Technology and Support Centers to local field offices.

NRCS continues to find more effective ways to control soil erosion and protect water quality while expanding our role to address energy conservation and carbon sequestration. Here in Michigan we've conducted trials to evaluate the effectiveness of vegetative and saturated buffers and the use of different plants to naturally control nematodes among many others. Some trials study the effectiveness of new practices and other the use of established practices for new uses, such as establishing trees in areas covered in reed canary grass using dormant posts as described in this newsletter.

Each year NRCS supports new advances in conservation through the Conservation Innovation Grant program. In fiscal year 2020, a new component was added to the program, On-Farm Conservation Innovation Trials. This year the program awarded funding for Michigan projects in both the traditional CIG and the On-Farm Trials components.

Michigan State University received funding for two different CIG On-Farm Trial projects. The first trial studies strategies to reduce nitrogen fertilizer

loss, including variable rate application and planting native vegetation in areas where crop production is not profitable. The second grant is to field-test a low-cost remote sensor monitoring system for irrigation in corn, soybean, and small vegetable production plots.

Most recently, NRCS announced the awarding of its traditional CIG grants that included



*State Conservationist
Garry Lee*



Planting dormant stakes in an area overgrown with reed canary grass is one of many conservation trials conducted by NRCS-Michigan and its partners.

two Michigan projects. The Rid-All Foundation received a grant to pilot bioenergy/biochar systems for agricultural producers in historically underserved communities in urban and remote rural areas in three states including Michigan. Michigan State University also received a traditional CIG grant to develop an educational decision-support tool for accelerating the adoption of saturated buffers.

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While the fiscal 2020 program year is still clear in our rearview mirror, the first program cut-off date for the Environmental Quality Incentives Program and Conservation Stewardship Program is not far down the road. The cut-off date for FY2021 applications will be early in calendar year 2021.

Producers and private forestland owners who plan to enroll in NRCS programs next year should start the application process as soon as possible.

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Animals and Plants Restoring the Land Together

In addition to using rotational grazing May also wants more than one species grazing together. Typically he grazes sheep and cattle together, with the two species competing they have to eat, he said. He also currently has two chicken tractors, movable pens where he raises chickens for meat. He sells all the meat he raises directly to customers using the Community Support Agriculture (CSA) model. There is plenty of demand and he receives a premium for the organic, grass-fed products he produces.

In 2017, May hosted a field day in conjunction with Michigan State University. The event attracted farmers and non-farmers alike, said Hughey. It was a good opportunity for the general public to learn about prescribed grazing, he said.

May acknowledges that his grazing philosophy is not widely accepted. He can take solace that Savory's belief that grazing can be used to reverse desertification in Africa and other places has its critics also. That won't stop him from painting his patch of Lake Michigan sand dunes green.

(top right) May grazed about 20 beef cattle during 2020, he typically raises about 35 sheep in addition to cattle (middle right) May also has two "chicken tractors" for broilers that he sells directly to customers.



Amending Soil with Biochar

Paul May uses a variety of methods to increase the organic matter of the sandy soil that supports his grazing operation. One method is amending the soil with biochar

May makes his own biochar using discarded fuel oil tanks that are cut in half. He burns discarded wood in the tanks while continually adding more material to control the temperature. Burning the wood at a lower temperature creates a substance similar to charcoal. The material, biochar, is a stable form of carbon that holds moisture in the soil and provides nutrients to microorganisms.

Biochar has been promoted as a method of adding organic matter sandy soils in northwest Michigan.



Benzie County livestock producer Paul May with a container of biochar that he uses to amend the soils of his pastureland near Frankfort.

Dormant Post Cuttings - October Update

A June visit to a dormant post planting trail on a wetland restoration site in Jackson County showed promising results, unfortunately the ensuing months were not as hospitable. A follow-up visit in early October found a significant die off.

NRCS State Forester Andy Henriksen visited the site in October and found that about half of the willow posts had survived but none of the 43 cottonwoods. The landowner reported the area was flooded for a prolonged period which seemed to coincide with the die off. Due to the growth of the canary grass the dormant stake cuttings were difficult to find, Henriksen reported, but he managed to find a few that survived.

In mid-March, NRCS staff installed dormant post cuttings from cottonwood (*Populus deltoides*) and black willow (*Salix nigra*) on a site overgrown with invasive reed canary grass (*Phalaris arundinacea*). A number of dormant stakes were also installed including Indigo' silky dogwood (*Cornus amomum*), and Riverbend Germplasm silky willow (*Salix sericea*). A follow-up visit in late June found that about 90 percent of the dormant post willows had new growth along with about 75 percent of the cottonwoods.

The June observations were promising because establishing trees in areas with reed canary grass requires planting live trees large enough to not be shaded out, which can be cost prohibitive. Henriksen plans to visit the site again in the spring to make further observations when the reed canary grass is dormant.

The latest observations were disappointing after the installation's early success but the practice still shows potential. If other offices are interested in conducting a similar trial, Henriksen is willing to help plan and assist.

(top right) About half of the willow dormant posts installed in area overgrown with reed canary grass were growing in October. (right middle) The cottonwood posts planted in March showed growth in June but had died by October. (right bottom) Most of the willows and cottonwood planted in March were growing in June.



NRCS-MI Employee Notes

New Employees

Gabe Garbarino - District Conservationist, Allegan

Last Position: District Conservationist, Manchester, Iowa

Home Town: Marysville, Calif.

Education: California State University at Chico - B.S. Agriculture with Land Stewardship Emphasis

Family: Wife – Marissa; Children - Lucas, Caleb, Josiah and Charlotte

Hobbies & Interests: Hunting, fishing, kayaking, hiking. Marissa's family is from eastern Michigan and my dad was born in Michigan. We love the Midwest and are excited to get back to our family roots.



Returning to Michigan

Tamarra Roseburgh - CSP Coordinator, East Lansing

Last Position: CSP Coordinator, Salina, Kan.

(formerly District Conservationist, Monroe, Mich.)

Norlando Veals - Soil Conservation Tech., St. Johns

Last Position: Soil Conservation Tech., Huntington, Ind.

Home Town: Brookhaven, Miss.

Education: Alcorn State, Masters in Agricultural Economics

Family: Four brothers and three sisters

Hobbies and Interests: Hunting, fishing, coaching football, mentoring



In-State Transfers

Tiffari Jenkins - District Conservationist, Cassopolis

(formerly District Conservationist, Marshall)

Becky Otto - Compliance Coordinator, East Lansing

(formerly EQIP Coordinator, East Lansing)

Management Plans Help Families Build Forest Future

by Bill Cook, Michigan Forest Pathways

Forest management plans sound like a good idea. They're a gateway into a range of cost-share, assistance, and property tax programs. Yet, few forestowners have formal, written forest management plans.

Plans help inform forestowners so that they might make better choices about their property. Plans provide a roadmap and activities schedule (including waiting) that reflect forestowner objectives.

There are nearly 200,000 Michigan family forest ownerships of at least ten acres in size. This complex ownership block sums to around 8.5 million acres, the largest ownership group for the 20.1 million acres of Michigan forestland. The vast majority of these holdings lie north of a line running east-west through Saginaw.

These lands provide timber, water quality, habitat, recreation, and other goods and services for the forestowner, the public, and the environment. They

are critically important natural resources.

Management plans are not required in Michigan, but they seem like a pretty good idea if one adheres to the notion that the future should be built, rather than simply waiting to see what might happen. In

forestry, as in other endeavors, doing nothing will most likely lead to a place where most forestowners don't want to be.

Yet, **less than 20 percent of this family-owned acreage has a management plan**, with even fewer acres where a plan has been implemented.

What goes into a forest management plan? It's not rocket science. The DNR has a nice [one-page summary](#) of items. The Department of Agriculture and Rural Development (DARD) has another [checklist](#) on their Qualified Forest Property webpage. There are other checklists, too.

Much of the plan direction is up to the forestowner. A professional forester can provide valuable insights

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Pollinator Partnership Hires NRCS-MI Liaison

The Pollinator Partnership hired a liaison to assist NRCS and other conservation partners in promoting pollinator conservation. The Partnership selected Maureen Stine, formerly an NRCS Soil Conservationist in Onaway, for the new position.

The Pollinator Partnership, which includes NRCS, promotes pollinator conservation projects throughout North America and globally. Among its projects are the annual pollinator poster that is distributed by NRCS, promotion of Pollinator Week, and a Bee Friendly Farming training and certification



program.

As the organization's liaison, Stine can assist field offices with creating pollinator habitat demonstration sites and organizing pollinator field days and other outreach events. She can also provide training to conservationists and landowners on pollinators and pollinator habitat.

The Partnership is looking for input from NRCS employees about what technical resources are most needed. They are asking for NRCS-MI employees to complete a short [online survey](#) of their pollinator-related training and outreach needs.

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Management Plans Help Families Build Forest Future

and services, helping to match land capabilities with a forestowner vision. A forester can assemble knowledge about many natural resources to help move a forestowner forward.

A complete plan, some of which may not be of particular interest to some forestowners, will pave the way into cost-share programs from NRCS, either of Michigan's forest property tax programs, the [Qualified Forest Program](#) and the [Commercial Forest Program](#), and eligibility for the [Tree Farm Program](#).

Some of the plan elements are obvious, such as names, addresses, contacts, legal descriptions, a map or two, dates, and a description of the property. The owners should frame management goals and desired future conditions with a forester. The forester can inventory the forest to yield important characteristics, upon which decisions can be better made.

Soil properties and habitat conditions should be spelled-out, including such things as possible endangered and threatened species, as well as exotic invasive species. An archeological and historic review might be good practice for many woodlands.

A timber management schedule is a requirement for both the property tax programs. It's also a pretty good way to assess what sort of revenue might be expected during the life of a management plan. Other desired management practices should also be included in the schedule of activities, such as pond-

building or habitat changes.

The costs of obtaining a plan can be partially paid through the DNR [Forest Stewardship Program](#) or through the NRCS Environmental Quality Incentives Program program. Michigan is served by many good consulting foresters.

Most of Michigan's heavily forested counties have foresters available through the Conservation Districts and the [Forestry Assistance Program](#). These foresters can provide a free on-site visit and help guide forestowners to appropriate resources and programs.

Many of these programs have deadlines. A forestowner needs to plan ahead to give a consulting forester enough time to schedule and prepare a management plan, and an agency to process an application. Cost-share programs require an approved plan as part of their application process. These programs can sometimes be confusing, which is another reason to work with a forester.

Forest management planning represents a commitment to the future of the forest, the family, and all those numerous linkages to a forest.

[Michigan Forest Pathways](#) is a consortium of forestry groups to help streamline information about forestry and coordinate forestry activities designed to benefit the family forest owner and various publics that make up our Michigan citizenry.

Upcoming Events - Upcoming Events

November

- 10 Soil Health Coffee Convo, 8 to 9:30 a.m., Online Zoom Webinar, for more information and to register go to [nature.org](https://www.nature.org)
- 10 Michigan Cottage Food Law Workshop, 10 a.m. to noon, Online Zoom Webinar, for more information go to www.canr.msu.edu/events
- 13 GMO Workshop, 1 to 5 p.m., Online Zoom Webinar, for more information and to register go to www.canr.msu.edu/event
- 17-18 National Cover Crop Summit, online event, for more information and to register go to www.covercropstrategies.com
- 20 Tree Care and Pruning with a Certified Arborist, 10:30 to 1130 a.m., Parking lot of Verkuilen Bldg. - Clinton Township, for more information go to www.canr.msu.edu/field_crops/events

December

- 8 MACD Fall Convention, online event, for more information go to www.macd.org
- 9 Timber Tax Workshop, 5:30 to 7:30 p.m., Harrison City Hall - Harrison, for more information and to register email Nia.Becker@macd.org

January 2021

- 12-15 National No-Till Conference, Indianapolis, for more information and to register go to www.no-tillfarmer.com/nntc



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