

2021 SPRING

CROP THE BEST, GRAZE THE REST

Paul Markhardt converted his low-yielding ground to pasture and hay, and is reaping the benefits.

SAVING MONEY WHILE SAVING SOIL AND WATER

The start of the growing season is a great time to dig into your plans and fine-tune your decisions.

IF IT'S RED, RETHINK THE SPREAD

Know your risk before you spread.

UPDATE MANURE STORAGE ORDINANCE

What you need to know.

SPRING DEVELOPMENTS AND GRAZING SYSTEMS



LAND Conservation DEPARTMENT

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Congratulations to Dan Nankee, who was presented with the Outstanding Supervisor Award from the Wisconsin Land and Water Conservation Association. This award recognizes his strong and effective leadership in promoting resource conservation through his actions and work in the community. Pictured left; Roger Dax, Katie Abbott, Dave Gollon, Dan Nankee, Don Leix, Bob Bunker, Kevin Butteris, Ron Benish, and Larry Bierke.

2020

SUMMARY REPORT



Nutrient Management Planning

- ASSISTED 24 FARMERS IN WRITING THEIR OWN NMPs.
- COST-SHARED 10 NUTRIENT MANAGEMENT PLANS TOTALING \$28,806 & COVERING 1029 ACRES



Soil & Water Projects

- 17 PROJECTS COMPLETED TOTALING \$58,517 IN COST-SHARE PAYMENTS
- RECEIVED A \$137,553 TARGETED RUNOFF MANAGEMENT GRANT TO IMPLEMENT THE KNIGHT HOLLOW-MILL CREEK WATERSHED PLAN WITH PROJECT PARTNERS

Farmland Preservation

697 FARMS PARTICIPATE COVERING 154,205 ACRES WHICH EQUATES TO OVER \$1.1 MILLION IN TAX CREDITS TO COUNTY FARMERS



Conservation Enhancement Reserve Program

18 AGREEMENTS COMPLETED COVERING 382 ACRES TOTALING \$93,593 IN INCENTIVE PAYMENTS



Partnerships & Outreach

- YOUTH CONSERVATION POSTER CONTEST
- WORKED WITH UPLANDS FARMER-LED GROUP ON SOIL HEALTH VIDEO
- PARTNERED WITH UW EXTENSION AND NEIGHBORING COUNTIES IN 3-PART LEASING YOUR LAND SERIES
- HELPED UW EXTENSION WITH FARMING DECISIONS TO PROMOTE SOIL HEALTH WEBINAR
- PARTNERSHIP ON SWIGG STUDY
- PRESENTED 5 CONSERVATION AWARDS
- PARTNERSHIP WITH LOWERY CREEK WATERSHED INITIATIVE
- PARTNERSHIP WITH SOUTHERN DRIFTLESS GRASSLANDS

CROP THE BEST, GRAZE THE REST

KATIE ABBOTT
County Conservationist

Paul Markhardt covered his low-yielding ground to pasture and hay, and is reaping the benefits.

When Paul Markhardt's father bought his now 550-acre farm near Barneveld 31 years ago, Paul worked with him to raise 35 beef cattle. Over time, the farm expanded to a 1,500-acre cash grain operation. But in 2011, Paul started switching his land back to pasture, and completely got out of the grain business by 2013.

The motivation for the change came from a period of two to three years in a row when his beef cattle were more profitable than corn and beans. Paul took the low-yielding ground and converted it to pasture or hay. "You need 200 plus bushels per acre to make grain cash flow," he explained. "It paid better to run the cattle on my own ground." Much of his land was in the 160-180 bushel range. The best 200 or so acres he still rents out for cash grain. He also rents additional land for grazing.

Paul now sees less disease and foot problems in his cattle, saving money on vet bills and medication, and his farm requires less maintenance. "Cattle do better on grass," he stated. "They've got four feet, they're meant to move around. It's easier to let them feed themselves."

From April to November, his cattle are on pasture, and his main tasks are checking the mineral feeder and checking on the calves. In winter he feeds hay and corn silage. He spreads the winter manure on the pastures in spring, keeping his fertilizer costs low.

"It takes more effort up front, but expenses are much lower once everything is set up," Paul explained. Up-front costs include fencing, water lines, and water tanks.

"It takes more effort up front, but expenses are much lower once everything is set up."

On rented land near Blue Mounds, he uses a grazing system with four paddocks that connect to a central watering tank. The water lines are buried deep enough to run all year. He moves cattle about every three weeks, depending on the forage. He ran electricity to the fence on his home farm, while some of the rented land uses solar power.

Paul raises cattle for genetics and custom breeding, as well as meat production. "You have to find your niche."

In addition to better profits and less maintenance, Paul has noticed benefits to the land. "There is no erosion with the grass mix, and there are lots of birds." Even when he occasionally plants one year of corn and beans on part of the pasture before re-seeding a grass mix, the soil is less erodible.

Paul took over the farm from his father, and both of his sons are now pursuing agriculture educations. With decisions that have been good for both finances and for the land, the farm will be ready for the next generation of Markhardts to take the reins.

Not sure how to start with grazing?
Need some advice or financial assistance?

- Call Extension Agriculture Agent Gene Schriefer at 608-930-9850
- Natural Resources Conservation Service at 608-935-2791 x3
- Iowa County Land Conservation Department at 608-930-9891



PHOTO: MAVME KEAGY

PHOTO: MAVME KEAGY

SAVING MONEY WHILE SAVING SOIL AND WATER

LONDON BAUMGARTNER

Conservation Specialist

The start of the growing season is a great time to dig into your plans and fine-tune your decisions. A good way to do this is by asking a series of questions:

Am I planning to maximize yields or profit?

Higher yields don't always mean higher profits. Plant growth responds to added nutrients only to a point, and then your return on investment begins to diminish. Determining where those thresholds are is key to maintaining a sustainable business model. Creating a nutrient management plan and following UW-Extension recommendations will help you figure out that balance, especially when it comes to nitrogen.

Am I controlling my expenses?

Inputs come in many forms: time, equipment, diesel, fertilizer, pesticides, labor, seed, and vet bills. These amounts are not set in stone; you have the power to change them. Inputs can drop dramatically with practices like cover crops, tillage reduction, nutrient management, and grazing management. Many of these tools are not new, and more and more farmers are revisiting them as we learn all of the benefits that come from their adoption, including increased profits.



Am I taking advantage of the benefits of conservation?

Improved water quality is not the only outcome of soil and nutrient management. Soil, with its nutrients and organic matter, is a valuable asset to any farm that would be costly to replace. Yet nationwide soil erosion rates have not improved in the last 15 years, resulting in over 140 million dump trucks' worth of soil lost to wind and water each year. With reduced erosion and better soil health, crops become healthier and fields are more resilient to both flooding and droughts, granting farmers just a little less uncertainty. Not to mention, your friends at the Land Conservation office can provide cost-share or incentive payments that can help with the initial investment costs, such as seed, fencing, or a change in planting equipment. You may even have areas that just are not profitable to farm anymore; maybe add some permanent pasture, hay, or wildlife habitat there instead. Give us a call if you want to learn more about your options.



IF IT'S RED, RETHINK THE SPREAD

LONDON BAUMGARTNER
Conservation Specialist

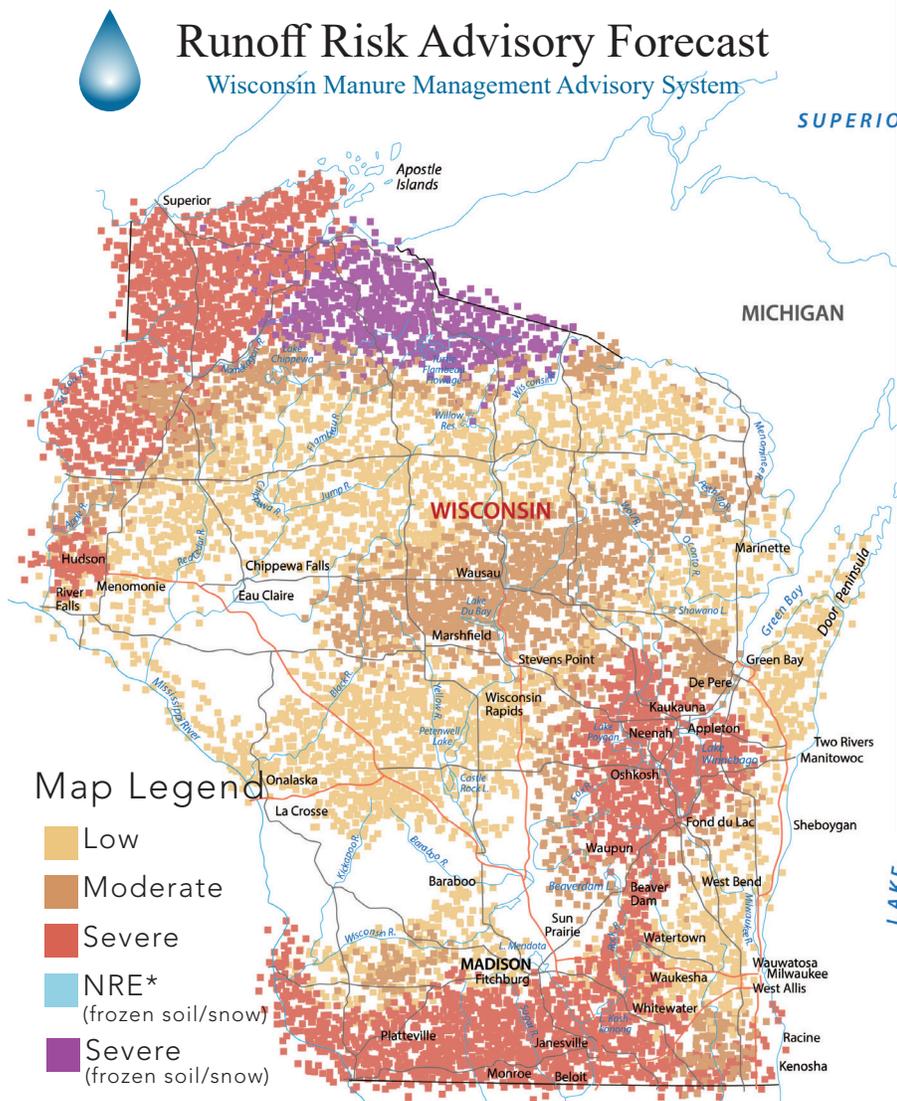
April, May, and June are usually months with a high runoff risk due to heavy spring rains and bare fields. To help farmers navigate this risk, Wisconsin has an easy-to-use Runoff Risk Advisory Forecast website that provides a science-based guidance on spreading conditions for your area. Take a look by visiting <http://www.manureadvisorysystem.wi.gov/runoffrisk/index>. The forecast looks at 10-day windows in the winter and 3-day windows all other seasons to let you know if it is a good time for spreading manure. Taking into account soil temperature, precipitation, and soil saturation levels, it lets you know quickly whether you are at a low, moderate, or severe risk for runoff.

More like a yield sign than a stop sign, it is not meant to tell you that you cannot spread when you need to. In many instances, spreading can still take place in high risk situations with proper management. The link "Need to spread on a high-risk day?" will walk you through a few variables to consider before making the decision to spread on a particular field. Your Nutrient Management Plan will also show any areas (such as near a stream or well) that should be avoided or need special practices. These tools will help you avoid time-consuming, and possibly costly, manure spills, and help keep valuable nutrients on the fields, where they belong!

Wisconsin has an easy to use, straightforward website that provides a science-based referral on spreading conditions for your area.

COVER-CROP COST-SHARE AVAILABLE NOW!

The Iowa County Land Conservation Department is now cost sharing on cover crops and reduced tillage on fields where this is a new practice. To learn more, contact Landon Baumgartner at (608) 574-1460 (cell). Call early; cost-share contracts are often written the spring and summer before cover crops go in.



<http://www.manureadvisorysystem.wi.gov/runoffrisk/index>

The Runoff Risk Advisory Forecast website (example image above) provides a 10-day forecast in the winter and a 3-day forecast for all other seasons to let you know if it is a good window for spreading manure.

For more information, technical assistance or to inquire about possible cost-sharing opportunities contact Landon Baumgartner at 608-930-9895, landon.baumgartner@iowacounty.org



IOWA COUNTY'S UPDATED MANURE ORDINANCE

SARAH HOVIS
Conservation Technician



NR151.08 MANURE MANAGEMENT PROHIBITIONS:

- No overflow of manure storage facilities.
- No unconfined manure stack within 300 ft of a stream or river.
- No direct runoff from a feedlot or stored manure into the waters of the state.
- No unlimited access by livestock to waters of the state in a location where high concentrations of animals prevent the maintenance of adequate sod or self-sustaining vegetative cover. Properly designed, installed and maintained livestock or farm equipment crossings are exempt.

The Iowa County Board passed a new Manure Storage and Management Ordinance in the fall of 2019 that included several significant changes, which will allow us to better protect water quality and public health.

A permit is now required for a new manure storage of any size. The NRCS standard used to design the storage will be the active standard at the time of the permit application. There are setbacks from property lines (100 ft), roads (100 ft), and wells (250 ft) for any new structures, except as specifically stated in the ordinance. The four manure management prohibitions from Wisconsin Administrative Code NR 151.08 are included in the ordinance as well.

Iowa County also now requires a Certificate of Use for new permits. This certificate requires proper operation and maintenance, allows the Land Conservation Department to inspect storage structures or request proof of compliance in the future, and requires annual Nutrient Management Plan checklists with regular updates for permitted facilities.

The new ordinance maintains several requirements from the previous version: permits are required any time a manure storage facility is substantially altered or closed; empty storages that will not be re-used must be properly closed; and any facility that poses an imminent threat to human health, fish, or groundwater may need to be upgraded or closed.

Fees associated with this ordinance are set by resolution and are available online or through the Planning & Development or Land Conservation Departments.

The new design standards and setbacks only apply to NEW manure storage. However, the manure management prohibitions and storage closure requirements apply to all Iowa County farms.

If you need help (advice or cost-sharing) with storage options, storage closure, nutrient management planning, or solving manure challenges, we're here to help! Feel free to call the Land Conservation Department with any questions: 608-930-9891.



For more information, technical assistance or to inquire about possible cost-sharing opportunities contact Sarah Hovis at 608-930-9894, sarah.hovis@iowacounty.org



SPRING DEVELOPMENTS

SARAH HOVIS
Conservation Technician

IMPROVE PASTURE AND PROTECT STREAMBANKS



PHOTO: SARAH HOVIS

LIMITING FACTORS:

- Depth to Bedrock
- Not Enough Flow
- Elevation Change Not Met
- Cultural Resources
- Endangered Species



PHOTO: SARAH HOVIS

“It’s never been this wet.”

“I’ve never seen so much water come through here.”

“There never used to be water here until last year.”

Do any of these statements sound familiar? All over the county, land owners and operators have been experiencing the same phenomenon over the last few years. As increased rainfall in turn increases groundwater, seasonal streams flow year round, bottomland fields stay wet, and new flows of water seem to be springing right out of the ground!

High water tables and fractured bedrock result in the latter: new springs. These springs can be developed to provide valuable watering systems in pastures where other water sources are not feasible. Spring developments also provide a stable and easily accessible place to water animals, resulting in less degradation to streambanks and sensitive areas.

Spring developments can be integrated into existing pastures or planned with fencing to set up a new grazing system. In areas with sufficient flow, multiple tanks can be attached to the same spring for rotational grazing systems. In addition, spring developments can provide a watering source to remote areas that cattle glean in the winter, allowing more time on fields and pastures and less time in barnyards.

As a result, manure is “spread” naturally rather than accumulating to be scraped and hauled, which reduces labor and space used in pits or stacking areas.

A spring development consists of an underground collection box that stores as much water as possible, which then passes through pipe to a watering tank that sits on gravel or concrete. Water exits the tank through a pipe that outlets at the original stream channel to maintain water needed for wetlands or other sensitive areas. Flow must be sufficient to keep the tank filled and flow back into the stream. All subsurface materials must be buried at a sufficient depth to prevent freezing in the winter. Our spring developments are gravity fed, so they must have enough slope to function properly.

Springs historically attracted both humans and animals alike, so a thorough investigation of cultural and natural resources must be completed prior to beginning installation. A wetland determination may also be required and any fencing will need to avoid disturbing sensitive areas.

DEEP ROOTS



LAND CONSERVATION DEPARTMENT
303 W CHAPEL ST, STE 2100
DODGEVILLE, WI 53533

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Madison, WI

608.930.9891

www.iowacounty.org/departments/landconservation

EVENTS & RESOURCES



Extension



UNIVERSITY OF WISCONSIN-MADISON
DIVISION OF EXTENSION
COVER CROPS IN WISCONSIN

The Wisconsin Cover Crop Conference planning committee is proud to announce the debut of our 2021 Spring Resource Library. New videos are added weekly with cover crop, soil health, and conservation topics from Wisconsin speakers.

<https://fyi.extension.wisc.edu/covercrop/>



SARE
Sustainable Agriculture
Research & Education



SUSTAINABLE AGRICULTURE
RESEARCH AND EDUCATION

8-PART SERIES: WHAT IS SUSTAINABLE AGRICULTURE?

How do you make a farm or ranch more sustainable? There is no single answer, but SARE's video series "What is Sustainable Agriculture" highlights some common practices farmers and ranchers across the country use to improve profitability, quality of life and environmental stewardship. The whole series can be found at

<https://bit.ly/32iWhnM>



DISCOVERY
FARMS
WISCONSIN



PRODUCER-LED WEBINAR SERIES
HOSTED BY DISCOVERY FARMS and DATCP
RECORDED WEBINAR SERIES

This recorded webinar series covers a range of conservation topics that producer-led groups around the state are focusing on. They include the farmers perspective and facilitate farmers to problem solve, try new things, and innovate.

<https://uwdiscoveryfarms.org/2020/06/29/producer-led-webinar-series/>