

Conservation Notes

In Harmony with the Land

USDA Natural Resources Conservation Service—Michigan



Winter 2011

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Conservation Tillage Makes Sense

Conservation tillage, including no-till and strip-still makes as much sense as ever especially with rising fuel prices.

“If it’s such a good idea, why don’t more people do it?” was a question raised by Randall Reeder, an associate professor and extension agricultural engineer at Ohio State University.

Reeder, whose expertise is in conservation tillage and soil compaction, spoke to farmers at last year’s Center for Excellence Field Day in Lenawee County. The advantages of conservation tillage are well documented and include improved soil quality, reduced runoff and soil erosion, higher soil moisture, and better economics.

Farmers can save two to three gallons of fuel an acre by adopting conservation tillage, said Reeder.

The savings in fuel and other machinery costs can make up for a loss in production but farmers should not assume they’ll lose production by going from conventional tillage to conservation tillage. Lower yields during the first few years of using no-till is a commonly cited belief, said Reeder. However, research has found increased yields using no-till with other cropping changes.

A five-year study found that no-till and a three year rotation including corn, soybeans and wheat plus cover crops produced higher yields than a

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Conservation tillage offers many conservation benefits, reduces fuel costs and saves money on fuel and equipment.

State Conservationist's Message

If you listen to Michigan Farm Radio you are likely to hear an NRCS employee or customer talking about conservation.

For a second year, NRCS is partnering with Michigan Farm Bureau to promote USDA conservation assistance. This year the agreement includes 11 radio spots on Michigan Farm Radio in addition to articles in the Michigan Farm News and the MFB county grant program.

The Michigan Farm Radio spots began running in January, the latest focused on the EQIP Organic Initiative. Upcoming segments will feature a Conservation Innovation Grant recipient who is training new four-season farmers and the partnership effort in the Upper Peninsula to get private forestland owners involved in conservation planning.

MFB recently announced the recipients of its 2011 county grant program. The recipients will receive grants to promote USDA conservation programs within their counties, both to MFB members and non-members. NRCS and conservation district employees may be asked to participate if their county is a grant recipient. MFB awarded grants to 22 county or local area chapters. Last year the grants were used to host farmer meetings as well as farm tours and conservation days.

Over the past year, NRCS-Michigan said farewell to three long-time employees who

retired from the agency. Their years of experience and service will be greatly missed. On behalf of NRCS-Michigan I thank them for their service and wish them good luck in their future endeavors.

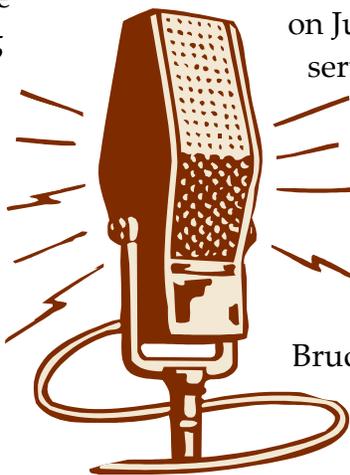
State Conservationist
Garry Lee



Gregory Thoen, Resource Soil Scientist, Grand Rapids, retired on July 2, 2010, after 30 years of federal service.

Carla Gregory, Assistant State Conservationist for Operations, East Lansing, retired on July 2, 2010, after 34 years of federal service.

Bruce Petersen, District Conservationist, Baraga, retired on July 30, 2010, after 32 years of federal service.



Steve Tardy, MLRA Project Leader, Grand Rapids, retired on Dec. 31, 2010, after years 30 of federal service.

Finally, on behalf of all of the employees of NRCS-Michigan, I want to express my deepest sympathy to the family and friends of Gracie Moreno. Gracie passed away on March 4, after a long battle with cancer. She served as the district conservationist in Bay County up until the time of her illness.

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Still Resistance to Conservation Tillage

corn and soybean rotation using conventional tillage, said Reeder. (The cover crops were cowpea after wheat and cereal rye after corn.) Applying a higher rate of manure or compost during the first years of conservation tillage can also jump start yields, according to Reeder.

To reap many of the benefits of no-till it must be continuous, Reeder said. Many farmers will no-till soybeans but then chisel plow before planting corn. Unfortunately, only a small percentage of farmers use no-till on all of their ground.

The Tuscola Conservation District rented out four, 30-foot no-till drills during 2010 that were used primarily for soybeans and wheat, said Jim Kratz, district director.

“It’s tough to get dry bean and sugar beet growers to go no-till,” said Kratz. “With high value crops farmers don’t do a lot of experimenting.”

Rising fuel prices could induce more farmers into expanding conservation tillage, Kratz said.

There is no research at Ohio State that shows chiseled corn does better than no-till after soybeans, Reeder said. “It’s curious that if there is no economic advantage to chisel plowing after beans, why do so many farmers still do it.”

There are many options for farmers interested in adopting continuous conservation tillage. A three-crop rotation is one option to consider. Another is strip tilling, where only the seed row is tilled. Research has shown that strip tilling can produce higher yields than no-till in cold, wet



The Tuscola Conservation District is one of several in Michigan that rents no-till equipment to farmers. In 2010, no-till drills rented from the district were used on over 13,000 acres in the county.

climates, Reeder said. Strip tilling allows the soil to warm up faster than no-till.

Many of the benefits of conservation tillage are lost if a field is tilled every other year or every five years, said Reeder. If a farmer uses no-till on 500 acres and tills 500 acres using a two crop rotation, there is zero acres of continuous no-till.

Tribe Utilizing GLRI Funds to Improve Fish Habitat

Todd Warner, natural resources director for the Keweenaw Bay Indian Community, compares a watershed's streams to the body's circulatory system. A project receiving financial assistance from the Great Lakes Restoration Initiative aims to improve the health of the "circulatory system" on tribal lands and areas surrounding them.

Starting in the spring of 2011 work will begin to replace road culverts that restrict fish passage in streams on tribal and surrounding property. The tribe has contracted to replace 12 road culverts with financial and technical assistance provided by the USDA Natural Resources Conservation Service. Over half of the funding, about \$400,000, will be provided by the Great Lakes Restoration Initiative.

The KBIC reservation is located in the northwest Upper Peninsula of Michigan along the Keweenaw Bay of Lake Superior. Improving fish passages is part of the tribe's ongoing effort to improve fish and wildlife habitat on the reservation. The tribe did a survey of road culverts because they often create habitat problems, said Warner. When the survey was completed a list was compiled and prioritized of crossings that impaired fish passage. The tribe meets regularly with NRCS staff and learned financial assistance to improve the crossings was available.

Some of the existing road culverts did not allow fish passage when water levels were low or had too high of flow for fish to manage, said Jim Sweeting, NRCS district conservationist for Baraga County. Using Warner's circulatory system analogy, Sweeting said removing



The Keweenaw Bay Indian Community will use funding from the Great Lakes Restoration Initiative to replace road culverts like this one that restrict fish passage.

impediments at stream crossings will be good for the whole stream system.

Brook trout are one species that will benefit from improving fish passages, Warner said. All of the streams the fish passages will be installed on are cold water streams that provide habitat for trout. Improved fish passages will give trout access to more of the stream system to find food and spawn. Other species will also benefit, he added.

The road crossings where the fish passages will be installed are under the control of the Baraga County Road Commission. KBIC holds the contract with NRCS to construct the fish passages and it will work in cooperation with the road commission. The tribe will select contractors to construct the passages after plans are approved by NRCS, the road commission and the Army Corps of Engineers.

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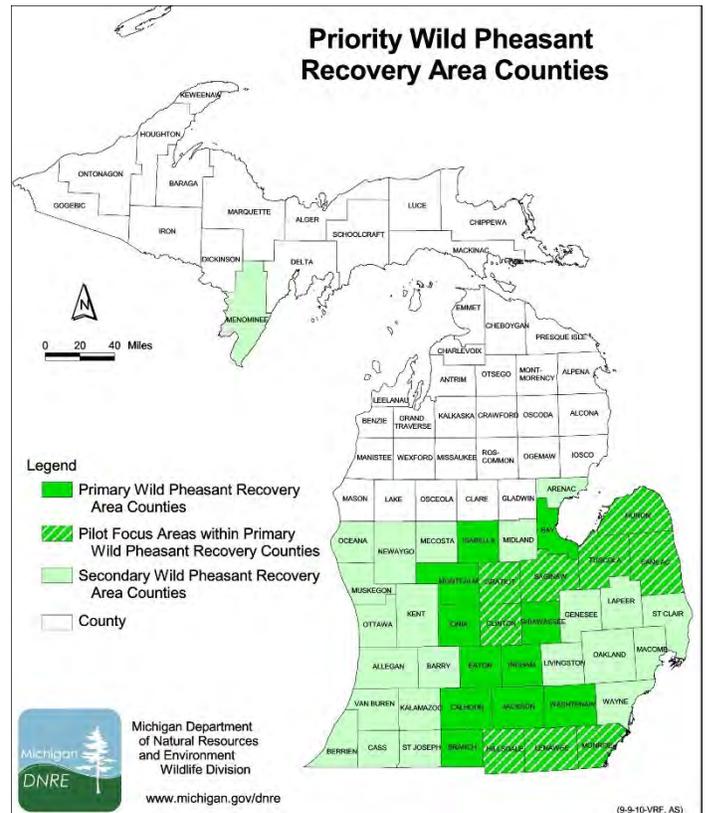
Partnership Seeks to Restore Pheasant Habitat

A partnership of government and non-profit conservation organizations has launched an initiative to improve pheasant habitat in Michigan. The Pheasant Restoration Initiative was officially announced in January during the Pheasants Forever State Convention in East Lansing.

Primary partners include Pheasants Forever, Michigan Department of Natural Resources and Environment (DNRE), Michigan Department of Agriculture, Michigan United Conservation Clubs, local Conservation Districts, U.S. Fish and Wildlife Service and the United States Department of Agriculture. The group of partners is expected to expand as the initiative moves forward.

The Pheasant Restoration Initiative has identified three pheasant recovery areas: 1) Huron, Sanilac, and Tuscola counties; 2) Hillsdale, Lenawee, and Monroe counties; and 3) Gratiot, Saginaw, and Clinton counties. To participate in this cooperative initiative, a group of property owners must agree to work together to improve pheasant and small game habitat on their collective acreages.

For participating coalitions, local wildlife biologists and conservation district staff will



provide advice and assistance on habitat prescriptions; project partners will aid in securing seed for grass plantings; and federal resources may be leveraged to provide financial incentives for participating landowners. The DNRE may provide seed and/or materials for plantings, the use of equipment, and in some

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KBIC Utilizing GLRI Funds to Improve Fish Habitat

When all of the fish passages are installed, the health of the circulatory system running through tribal and surrounding lands will be much improved. This will result in improved habitat

for trout and other species that are utilized by tribal members and other residents and visitors to the western Upper Peninsula.

Applying Manure in Winter Can be Risky

by Amanda Sollman, Michigan State University Extension
Animal Agriculture and the Environment Team

For livestock producers, storing manure through the often harsh Midwest winter can be an economic and environmental challenge. Throughout the region, agriculturalists and governmental officials alike are working to find the happy medium between allowing farmers to empty their storage units by winter-applying manure and making sure that waterways are safe from runoff.

“There are so many different types of winter in Michigan! It can snow, melt, snow again and then freeze,” said Natalie Rector, Michigan State University (MSU) Extension nutrient/manure management educator. “When farmers apply manure, the goal is to keep the nutrients in that location – which can be challenging during crazy winter months like this.”

Applying manure in the winter can be risky. Frozen ground that is covered with ice that can quickly melt lends itself more readily to surface runoff,



creating a potential for contamination of local waterways. Some states have rules, and others are considering new guidelines, to regulate winter manure application in order to best protect area natural resources and ensure that farmers are maintaining the nutrient value provided by manure application.

Starting in 2010, Iowa put new winter-spreading regulations in place. Liquid manure from confinement feeding operations of more than 500 animal units

cannot be applied on snow-covered ground from December 21 to April 1, or on frozen ground from February 1 to April 1, except in an emergency. One inch or more of snow or one-half inch or more of ice is the definition of “snow-covered ground.” Frozen ground is “soil that is impenetrable due to frozen soil moisture but does not include soil that is frozen to a depth of two inches or less.” The emergency must be a circumstance beyond the control of the owner and may be a natural disaster, unusual weather, or equipment or structural

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Partnership Seeks to Restore Pheasant Habitat

cases, the release of wild pheasants to initiate population response on land that meets restoration objectives.

An initiative such as this has the potential to increase wildlife populations, small game hunting opportunities, improve hunter satisfaction, and help Michigan's economy.

To learn more about the Pheasant Restoration Initiative and how to form a cooperative in your neighborhood, a series workshops is planned. There is no fee for attending. Various partnering organizations and agencies will be present to help with questions. More information is available online at www.michigan.gov/pheasant.

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Apply Winter Manure with Care

failure. The Iowa law does not apply to manure from open feedlots, dry manure, or liquid manure from small animal feeding operations of 500 or fewer animal units.

“In Vermont, producers cannot spread manure from December 15 through April 1,” said Dale Rozeboom, MSU Extension specialist who works with livestock producers in the state on environmental challenges. “In Ohio, winter spreading has been banned in only one specific watershed. Rules are very dependent on where you are and the winter conditions experienced in that area.”

The Michigan Right-to-Farm Management and Utilization Generally Accepted Agricultural and Management Practices (GAAMPs) and the Michigan Agriculture Environmental Assurance Program (MAEAP) both encourage all livestock farmers who plan to winter-spread manure to use the Manure Application Risk Index (MARI) to determine what fields are most suitable for winter spreading.

“MARI assists producers in making manure application decisions on a voluntary basis and provides environmental protection without the regulations we are seeing put in place in other states,” Rozeboom said.

Using MARI and on-farm assessments, Rector offered several guidelines for choosing fields on which to apply manure in the winter.

“You should evaluate whether or not fields border surface water – in which case, they should never be used. Consider the slope of the land, type of vegetation present or the type of

tillage used,” Rector said. “Storage capacity, method of application and type of manure – liquid or solid – also need to be considered.” Rector emphasizes, though, that winter manure application is not a one-size-fits-all process. Topography, weather and farm type all play a role in how states create regulations and how farmers make decisions. Different locations within states can even change the decisions being made.

“I’ve had farmers tell me that they’ve been able to inject manure all winter long, whereas other producers have so much snow they can’t even get equipment into the fields,” she said. “If you will be spreading, plan ahead, select the least risky fields, consider the field condition the day you apply and consider what the consequences will be when it melts. Your actions and the future reactions created by the unknown weather will play a big role in everyone’s ability to continue to winter-apply manure responsibly. For more information, visit www.animalagteam.msu.edu and hover your mouse over “Land Application” for more considerations of all land applications for manure.

Republished from the Scoop. The Scoop is produced every other month by the MSU Extension Animal Agriculture and the Environment Team.

Michigan Farm Bureau Honors St. Clair County Dairy Farm

Jim and Pam Reid, owners of Reid Dairy Farm in St. Clair County, were honored by Michigan Farm Bureau with its 2010 Agriculture Ecology Leadership Award.

Over the past five years, the Reids have nearly tripled the size of their dairy herd and instituted multiple conservation practices on their farm near Jeddo. The Reids also had their farm verified for the Michigan Agriculture Environmental Assurance Program.

In recognition of their proactive efforts, MFB presented its Ecology Leadership Award to the couple on Nov. 30 at the MFB 91st Annual Meeting in Grand Rapids. The couple also received a new John Deere Gator, compliments of Fillmore Equipment, Hamilton Farm Bureau, Crystal Flash Energy, Syngenta Crop Protection, CJD Farm Consulting, and Dennings and Associates.

The MFB Ecology Leadership Award goes to an individual, farm or partnership whose natural resources stewardship practices contribute to the protection of the environment, while maintaining or enhancing productivity and profitability.

The Reids milk 170 cows and grow soybeans, wheat and corn on 1,000 acres. They were nominated for the award by the St. Clair County Farm Bureau, and selected from 17 nominations submitted by county Farm Bureaus across the state.

The farm's history with proactive environmental stewardship spans many decades. Since 1978, when the Reids moved to their current location, the family has instituted a variety of



Reid Dairy Farm in St. Clair County received the 2010 Michigan Farm Bureau Agriculture Ecology Leadership Award during MFB's Annual Meeting in Grand Rapids. Posing on the John Deere Gator awarded for the achievement are farm owners Jim and Pam Reid (above).

conservation practices designed to improve drainage in fields and reduce soil erosion. Their earlier efforts were recognized in 1985 with the St. Clair County Soil Conservation District Farmer of the Year Award.

In addition, Jim Reid is an active community leader and role model. He is a past president of the St. Clair County Farmland Preservation Board and past chairman of the St. Clair County Soil Conservation District. He is also a past president of the St. Clair County Farm Bureau and continues to serve on several county Farm Bureau committees, including those devoted to county issues, land use, public policy and communications.

NRCS Michigan Civil Rights Corner

African Americans Left their Mark on the Old West

They don't appear in many movies or history books, but African Americans played a prominent role in America's wild west.

Douglas E. Lewis introduced USDA employees to a cast of soldiers, cowboys, outlaws and law men from the Old West who also happened to be African Americans. Lewis gave his presentation at a Black History Month celebration organized by a committee of USDA employees.

Lewis was born in Canada and is now an attorney working for the University of Michigan. His hobbies include horses and the history of African Americans in the days of cowboys and buffalo soldiers.

Among the African Americans Lewis profiled during his presentations were an army pistol instructor turned sheriff, a woman who ran a laundry and could knock out any man with one punch and a cowboy who later became a Pullman porter.

Lewis also shared a display of historical items including photographs, portraits, weapons and other items used by cowboys and soldiers during the time of the Old West.

Lewis has a Web site with links to more information about African American history at:

www.africanamericanwestproject.com



Douglas E. Lewis (above), from Ann Arbor, gave a presentation on African Americans in the Old West, including cowboys, buffalo soldiers and other historical characters at a Black History Month event in East Lansing. The committee of USDA employees who organized the event presented Lewis with a plaque.



The NRCS *Civil Rights Corner* is presented by the NRCS-Michigan Civil Rights Advisory Council. Its purpose is to assist employees in creating an inclusive workplace that utilizes the unique experiences and abilities of all staff members. To learn more about the Civil Rights Advisory Council, visit the CRAC Web page at: www.mi.nrcs.usda.gov/intranet/cr.html.

In Brief—In Brief—In Brief—In Brief—In Brief—In Brief—In Brief

CSA Workshop Planned

Anyone involved with or interested in community supported agriculture is encouraged to attend a workshop on March 12 at Wildwood Family Farms in Alto.

A CSA includes individuals who pledge support to a farming operation with growers and consumers sharing the costs and harvest. A CSA is a popular way to increase the availability of locally grown food.

The workshop starts at 8:45 a.m. with registration and ends at 3 p.m. The workshop will include panel discussions with operators of CSAs. Some of the panel discussion topics will include starting a CSA, marketing a CSA and financing options.

Wildwood Family Farms is located at 7970 Snow Ave. SE, Alto. The workshop costs \$15 to attend with lunch provided. For more information contact the Kent Conservation District at 616.942.4111 x 4 or at administrator@kentconservation.org

SWCS Program during ANR Week

The Michigan Chapter of the Soil and Water Conservation Society will be hosting their annual ANR week program from 9 a.m. to 4:30 p.m. on March 9 at the Kellogg Center in



East Lansing. The title of the program is “A Matter of Balance: Ecosystem Services and Sustainable Agriculture.”

Simply put, ecosystem services are the multitude of benefits provided by the environment. The idea of ecosystem services is nothing new. What is new is the way that ecosystem services are being considered by conservation organizations and natural resource managers. An ecosystem approach challenges us to consider all aspects of a proposed action, not just the primary purpose. For example, a grassed waterway helps to safely convey excess water off a field to reduce erosion, but how does this practice affect wildlife, air quality, and carbon sequestration? Join us as we explore the world of ecosystem services and how to incorporate these ideas into the ways we manage our natural resources and environment.

Check the Michigan Chapter SWCS website for program updates and registration information at www.miswcs.org.

National Volunteer Week April 10—16



Conservation Calendar

March

- 4-12** Agriculture and Natural Resources Week, Michigan State University—East Lansing, for more information go to: anrweek.canr.msu.edu/
- 12** Community Supported Agriculture Workshop, 8:45 a.m.—3 p.m., Wildwood Family Farms, 7970 Snow Ave. SE—Alto, see page 11 for more information
- 15** Fruit Tree Pruning Workshop, Country Mill—Charlotte, for more information call 517/543-5848 x 5
- 19** 5th Annual Conservation Expo & 63rd Annual Meeting, 8:30 a.m. to 4:30 p.m., Branch Area Career Center—Coldwater, for more information go to: www.branchcd.org or call 517/278-8008 ext. 5
- 22** Wetland Protection & Restoration Workshop, 1—4 p.m. Leelanau County Government Center—Suttons Bay, for more information call 231/256-9665 or 231/256-9783.
- 24** Mid-Michigan Farm Show, 10 a.m. to 7 p.m., Gladwin Community Arena—Gladwin, for more information go to: www.michiganfarmshow.com
- 28** Wetlands Workshop, 6:30 to 8:30 p.m., Rockford Sportsman Club - Rockford, for more information call 616/942-4111 ext. 3

March ctd.

- 29** Eaton Conservation District Wildlife Workshop, for more information call 517/543-5848 x 5

April

- 23** Creating a Healthy Home Yard, sponsored by the Shiawassee Conservation District, for more information call 989/723-8263
- 29** Arbor Day Celebration, Potter Park—Lansing, Organized by Eaton Conservation District and Michigan Arbor Day Alliance, for more information go to: www.miarbordayalliance.com

May

- 7** Equine Workshop, Shiawassee County Fair Grounds Community Center—Owosso, for more information call 989/723-8263
- 20** Isabella Conservation District Environmental Education Day, Chippewa Waters Park—Mt. Pleasant, for more information call 989/772-9152 ext. 3

June

- 1** Native Plant Workshop, 6 to 8 p.m., Kent Conservation District Office—Grand Rapids, for more information call 616/942-4111 ext. 111

Contact Conservation Notes—Please E-mail *Conservation Notes* with any questions, comments, calendar items, story ideas or to receive the newsletter by e-mail: brian.buehler@mi.usda.gov.

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