



Conservation Notes

USDA - Natural Resources Conservation Service - Michigan

May/June 2015

Detroit is Fertile Ground for Urban Farmers

Detroit native Chris McGrane was working on a friend’s farm in New Hampshire with plans to attend college in New York when he had an epiphany.

“The farming thing really spoke to me more,” said McGrane.

He knew buying farm land in the east was too expensive for a beginning farmer.

“Then I thought, where can I buy a house really cheap? Where can I buy land really cheap? Back home.”

In 2010, McGrane bought a home and an adjoining lot on Buffalo Street in northeast Detroit for \$1,250. The same year he started a one-year apprenticeship with Keep Growing Detroit, a non-profit that supports local food production. During his internship he provided hands-on training to Detroit growers.

McGrane was also expanding his own property, called Buffalo Street Farm. He now owns 14 adjoining city lots that he purchased from the city and private owners. He grows a variety of vegetables and recently started planting perennial fruit crops including table grapes, peaches, blackberries and raspberries.

McGrane and other local growers market most of their produce through a Community Supported Agriculture program where people purchase memberships and receive boxes of produce throughout the growing season. The CSA has 60



Detroit native Christopher McGrane returned to the city to take advantage of cheap land for urban farming.

members, and they could have more if they could supply the demand. All of the CSA members live or work in Detroit. He also sells produce collectively at Detroit’s Eastern Market. People here like to eat locally-grown food and support local businesses, said McGrane.

In September of 2014, McGrane built a seasonal high tunnel on his property with the assistance of the Southeast Michigan Resource Conservation and Development Council. He received financial assistance to purchase the high tunnel from NRCS through the Environmental Quality Incentives Program. His high tunnel was built during a demonstration project for local growers

- continued on page 3 -



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Natural Resources Conservation Service

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State Conservationist’s Message	Page 2
Long-Eared Bat Threatened	4
Client Gateway	5
Forage Facts	5
Michigan Envirothon State Competition	6
Riparian Forest Management	7
Conservation in Color	8
News Briefs and Staffing Notes	9
Event Calendar	10

State Conservationist's Message

Compared to California, where residents are asked to reduce their water use due a statewide shortage, water is not a concern for most people in Michigan. Living on two peninsulas surrounded by some of the world's largest fresh water lakes, water quantity is not a concern here. Water quality is another matter.

As the people of Toledo learned last August, you can live next to a huge body of fresh water and still not have water to drink. Water quality has become an important issue in the Great Lakes region since a harmful algae bloom on Lake Erie left thousands without drinkable water. Even before last summer, resources were allocated to improve water quality in the Great Lakes.

NRCS began receiving funding through the Great Lakes Restoration Initiative in 2010, and targeted funding for the Western Lake Erie Basin was announced in 2012. GLRI provides funds for improving wildlife habitat and fighting the spread of invasive species. The major objective of both GLRI and WLEB funding through NRCS however, has been to reduce the amount of phosphorus, other fertilizers, and sediment, reaching the Great Lakes.

Agricultural land has been identified as a major source of the phosphorus entering the Great Lakes which contributes to harmful algae blooms. Many are quick to point out that there are other sources of phosphorus entering the lakes. Some of these sources include lawn fertilizers, municipal sewage systems that overflow after heavy rains due to combined

storm and sanitary sewer lines, failing septic systems and more. While this is true, it is also true that phosphorus runoff from all of these sources, including agricultural land, must be reduced to protect the Great Lakes.

We know that using a system of conservation practices helps reduce nutrient and sediment runoff from cropland,



State Conservationist
Garry Lee



Agriculture Secretary Tom Vilsack announced targeted conservation funding for the Western Lake Erie Basin during an event at Cabella's in Dundee in March 2012.

and financial assistance is available through NRCS to help farmers adopt these practices. Cover crops, reduced tillage practices and buffer strips are proven to reduce nutrient runoff. In addition, over time, cover crops and reduced tillage provide many additional benefits to farmers. Among these benefits are improved drainage, improved water holding capacity and improved soil fertility.

Cover crops and reduced tillage are mutually beneficial to crop production and water quality. Conservation financial assistance for implementing these practices reduces the financial risk a farmer is taking when changing farming practices. We know that the agronomic benefits of reduced tillage and cover crops take time. Increasing organic matter in the soil, which improves drainage and soil water holding capacity, can be a long process. The ecological benefits however, are immediate.

- continued from page 1 -

Detroit is Fertile Ground for Urban Farmers

as part of a free workshop series put on by the SEMRCD.

Last year McGrane concentrated on getting his high tunnel ready for production. He laid down tarps to eliminate weeds and later put down a layer of cardboard with mounds of soil on top for growing. During the summer he will grow heat-loving plants like tomatoes, peppers, eggplant, and watermelons (grown vertically) in the high tunnel. In the fall he will start growing more cold-tolerant plants like salad greens, carrots and beats.

A few minutes' drive from Buffalo Street Farm is another seasonal high tunnel built with financial assistance through EQIP. Central Detroit Christian Community Development Corporation built a high tunnel at its Urban Hope Community Garden in October 2013. CDC began utilizing the tunnel in the spring of 2014, said farm manager Anthony Hatinger. Hatinger may have the perfect background for his job of two years after majoring in religious studies and horticulture at Michigan State University. He worked with Lansing-area urban farming projects before moving to Detroit.

Vegetable production is one of several business enterprises operated by CDC to provide employment, job training and healthy food to the community. Some of the others include a fish farm (located across the street from the community garden), a produce market and a cafe.

In the fall the high tunnel was planted with winter greens and herbs and it is now planted with summer crops including tomatoes, peppers, basil and cucumbers. Recently chefs from local restaurants are connecting with local growers to provide seasonal produce.

"The garden serves a dual purpose, education and production," said Hatinger.

CDC employs three interns and 10 teen seasonal employees at its two urban gardens. Stewardship of the land is a major component of their education in addition to production. Hatinger



Central Detroit Christian received funding from NRCS to build a seasonal high tunnel at its Urban Hope Community Garden (above). Anthony Hatinger (below) is the organization's farm manager.



believes the garden is providing more than just employment to neighborhood teens.

"I think it's deeper than that, it's creating a spirit of stewardship and cultivation into their repertoire," said Hatinger. "It's been very transformative I think."

The garden is also helping to bring the neighborhood together. Neighborhood residents are supporting the garden and many are starting gardens of their own, Hatinger said.

Northern Long-Eared Bat Listed as Threatened

The northern long-eared bat, which ranges throughout Michigan, was recently listed as a threatened species by the U.S. Fish and Wildlife Service. The listing was primarily due to white-nose syndrome, a fungal disease that affects hibernating bats.

The listing of the northern long-eared bat as officially threatened under the Endangered Species Act became effective on May 4, 2015. Under the Act, an endangered species is currently in danger of becoming extinct, while a threatened species is likely to become endangered in the foreseeable future.

According to the Organization for Bat Conservation, there is a mortality rate of 90 to 100 percent for bats who winter in caves infected with the fungus linked to white-nose syndrome. In April 2014, white-nose syndrome was confirmed in Michigan and Wisconsin according to the U.S. Geological Survey's National Wildlife Health Center. Several bat species are in decline due to white-nose syndrome including other species native to Michigan like the little brown bat.

Landowners can assist long-eared bat conservation efforts by limiting disruptions to bat habitat during the June and July pup-rearing season, said NRCS State Biologist Dan Zay. This means refraining from cutting or removing living or dead trees until after July when possible, especially in areas known to contain long-eared bats.

"Bats are a critical component of our nation's ecology and economy, maintaining a fragile insect predator-prey balance; we lose them at our peril," said USFWS Director Dan Ashe in a press release announcing the listing of the northern long-eared bat. "Without bats, insect populations can rise dramatically, with the potential for devastating losses for our crop farmers and foresters. The alternative to bats is greater pesticide use, which brings with it another set of ecological concerns."



The northern long-eared bat was listed as a threatened species by the U.S. Fish and Wildlife Service. The bat, which ranges throughout Michigan, is in decline due to white-nose syndrome.

Populations of the northern long-eared bat have declined dramatically in the eastern part of the bat's range due primarily to white-nose syndrome. Impact of disease is among the factors analyzed by the USFWS under the Endangered Species Act when a species is considered for listing.

White-nose syndrome has not yet been detected throughout the entire range of the northern long-eared bat, and will not likely affect the entire range for some years. The species appears stable in areas not yet affected by disease, mainly in the western part of its range. It also still persists in some areas impacted by white-nose syndrome, creating some uncertainty as to the timing of the extinction risk posed by the disease.

The USFWS, states, federal agencies, tribes, conservation organizations and scientific institutions are working together on a national response team to address white-nose syndrome through disease monitoring and management, conservation and outreach. The USFWS has granted more than \$20 million to institutions and federal and state agencies for research and response.

This article expanded from April 1, 2015 USFWS news release.

NRCS Launches Conservation Client Gateway

Agriculture Secretary Tom Vilsack announced that farmers, ranchers, and private forest landowners can now do business with USDA's Natural Resources Conservation Service through a new online portal.

With Conservation Client Gateway, producers will have the ability to work with conservation planners online to access Farm Bill programs, request assistance, and track payments for their conservation activities.

"What used to require a trip to a USDA service center can now be done from a home computer through Conservation Client Gateway," Vilsack said. "USDA is committed to providing effective, efficient assistance to its clients, and Conservation Client Gateway is one way to improve customer service."

Conservation Client Gateway enables farmers, ranchers and private landowners to securely:

- Request NRCS technical and financial assistance;
- Review and sign conservation plans and practice schedules;
- Complete and sign an application for a conservation program;
- Review, sign and submit contracts and appendices for conservation programs;
- Document completed practices and request certification of completed practices;
- Request and track payments for conservation programs; and
- Store and retrieve technical and financial files, including documents and photographs.



Conservation Client Gateway is entirely voluntary, giving producers a choice between conducting business online or traveling to a USDA service center.

"Our goal is to make it easy and convenient for farmers and ranchers to work with USDA," Vilsack said. "Customers can log in 24 hours a day, 7 days a week, to electronically sign documents, apply for conservation programs, access conservation plans, report practice completion, or track the status of conservation payments. Through Conservation Client Gateway, producers have their conservation information at their fingertips and they can save time and gas money by reducing the number of trips to USDA service centers."

Conservation Client Gateway is available to individual landowners and will soon be extended to business entities, such as Limited Liability Corporations. It is part of the agency's ongoing Conservation Delivery Streamlining Initiative, which will feature additional capabilities in the future.

National Forage Week Facts

The American Forage and Grassland Conference launched the first National Forage Week from June 21 to June 27, 2015. The following forage facts were published on their [website](#) to raise awareness to the importance of and impact of forages:

- Last year, U.S. farmers produced 61.4 million tons of alfalfa. In small square bales this would reach from the earth to the moon and back again 24 times.
- An acre of forage can prevent 2 million pounds of soil from eroding each year.
- A dairy cow consuming 1 acre of forage for a year can produce enough milk to fill a bowl of cereal 14 feet wide and 7 feet deep.
- One out of every 4 acres in the U.S. produces forage, for a total of 528 million acres in forage alone.
- In the U.S., forages feed 109 million head of livestock

Glen Lake Team Finishes First at 2015 Michigan Envirothon

A team from Glen Lake High School was the top finisher in the 2015 Michigan Envirothon State Competition held at Fort Custer Training Center in Augusta. The outdoor environmental competition was held from May 6 through May 8, with 24 teams from throughout the state competing.

Members of the winning team are Bryanne Palmer, Jane Lively, McKenna Turrill, Skylar Gleason and Caleb Gleason. The team will represent Michigan at the North American Envirothon Competition in Springfield, Mo., from July 27 to Aug. 2. The winning team members also earned scholarships from Michigan State University. Finishing second and third at the 2015 state competition were teams from Roseville High School and the Branch Area Career Center, respectively.

Michigan Envirothon is a program of the Michigan Association of Conservation Districts and all high school students in Michigan are eligible to compete. At envirothon competitions, teams of students test their knowledge and skills in forestry, soils and geology, aquatic ecology, wildlife, energy and agriculture by taking part in outdoors, hands-on, activities. Regional events are held throughout the state with top teams eligible to compete in the state competition.

Teams participating in the state event also completed community outreach projects prior to the competition. Community outreach projects address a local environmental concern through educational programs and/or hands-on projects. A team from Valley Lutheran High School in Saginaw had their project rated highest by a panel of judges. The Valley Lutheran team project was a community garden to grow fresh produce for a local soup kitchen.

Michigan Envirothon was established in 1994 and is a program of the Michigan Association of Conservation Districts. The program is a combined effort of natural resource professionals and educators to provide hands-on, outdoor coaching and testing on topical conservation



A team from Glen Lake High School finished first at the 2015 Michigan Envirothon. Members of the winning team are (r-l) Bryanne Palmer, Jane Lively, McKenna Turrill, Skylar Gleason and Caleb Gleason. Students study a soil pit during the competition at Fort Custer (below).



issues. In turn, Michigan Envirothon gives young citizens the tools to provide leadership for a more sustainable and environmentally aware community. High school teachers and students interested in competing in the 2016 Michigan Envirothon should visit the Michigan Envirothon web site for more information, www.michiganenvirothon.org.

Riparian Forest Management

by Bill Cook, Michigan State University Extension

A riparian area is one that runs adjacent to open water; rivers, streams, ponds or lakes. If forested, then these are riparian forests. Riparian forests do much to determine and maintain water quality. Many times, these water quality and aquatic habitat values drive the discussion about riparian forest management. But there are many other values inherent to these forests.

Species diversity can be unusually high in riparian forests. A Wisconsin study indicated 80 percent of threatened and endangered animals utilize riparian areas. Riparian forests are common travel corridors for many wildlife species and receive high use for food, nesting, shelter, loafing and other wildlife activity.

Soil hydrology can be complex and variable in riparian forests, leading to increased plant species richness. Visual quality is often high, indicated by the location preference of so many houses, cottages, campgrounds and other human uses. Lakeshore or riverside real estate commands higher prices.

These forests can also be more productive than upland forests, which lead to better tree growth and potentially high timber values, especially if management is applied. Disturbance through timber harvest may be a key factor in maintaining such values as productivity, species diversity and water quality. "Light tight" streams, where the adjacent forest has not been disturbed recently, may be less healthy.

The flipside is that riparian areas can also be more sensitive to soil damage than upland forests. Riparian forests are, indeed, special resources in many ways. A forester needs to exert extra effort to assess riparian conditions

and adjust management as appropriate for each situation. Like other forests, management can enhance these values. Both abuse and benign neglect can degrade them.

In the Great Lakes region, riparian forests are not a small subset of the forest whole. Estimates in Minnesota show 10-40 percent of forests are within 200 feet of open water. Simply locking-down this much forest poorly serves both humans and nature.



Riparian forests, those forests along waterways, are sometimes treated as a "no cut" zone. Unfortunately, this benign neglect may reduce values attributed to these special forests.

Riparian corridors are not uniform in their width, shape and structure. There are terraces, slopes, oxbows and benches. The alluvial soils are highly variable. The related forest cover is as equally variable.

Simply assigning an arbitrary and standard width fails to recognize this variability and potentially may fail to protect the many values of a highly variable geographical set of features. Uniform management, or excluding management, fails to recognize the biological diversity and other values of

riparian forests.

The landscape within which a riparian forest exists is another important consideration. Much of the research addressing riparian forests is from agricultural settings. Less research has occurred in forested landscapes. Forest management effects on vegetation in riparian areas are not fully understood.

Management can do several things to enhance riparian values. Standing snags (dead trees) and large, downed logs can be retained and/or created. Conifer species should be maintained. Later successional forest types should be encouraged.

- continued on page 8 -

Conservation in Color



On May 2, volunteers with the Ingham Conservation District collected macroinvertebrates from streams in the Upper Grand River Watershed as part of its bi-annual Volunteer Stream Monitoring Program (above). On May 9, the district held a geocaching/garlic mustard pull on its property near Mason collecting 500 pounds of garlic mustard (below).



NRCS staff from the Traverse City field office conducted a wetland easement tree planting evaluation to determine tree and shrub survival from a 2014 planting, pictured are Jason Kimbrough and Megan Sebright (right).



"Some" of the summer interns from UP universities working with the Marquette Conservation District.

-continued from page 7-

Riparian Forest Management

Foresters can establish multiple zones where management emphasis varies with riparian conditions. During a harvest, variable amounts of tree retention can be designed to enhance riparian values. However, increased light conditions may encourage exotic species. This threat should be considered.

The bottom line is that riparian forests should be managed to enhance the resource and timber management can be a great tool. However, because these forests are particularly important

in many ways, and especially sensitive to soil damage, management practices should be adjusted accordingly to sustain riparian resources. There is no one-size-fits-all solution to such a variable and valuable resource, which is just another reason Michigan State University Extension recommends hiring a consulting forester to help develop forest management plans.

This article was published by Michigan State University Extension. For more information, visit www.msue.msu.edu.

2015 Breakfast on the Farm Events Set

Michigan State University Extension has scheduled its Breakfast on the Farm events for summer 2015.

MSUE organizes Breakfast on the Farm events to provide the public a first-hand look at modern food production. Since 2009, more than 60,860 people have attended these free public events.



Five Breakfast on the Farm events are scheduled during July and August. A list of the dates and locations can be found on the events calendar in this newsletter. All of the events take place from 9 a.m. to 1 p.m. with a free breakfast offered until noon. For more information go to breakfastonthefarm.com

What's New with Poo?

The Clinton Conservation District and Michigan State University Extension Service are hosting an Aug. 18, farm tour for livestock and cash crop farmers.

The event, titled *What's New with Poo?*, will focus on utilizing manure in crop nutrient management. The tour will set off by bus from Providence Agriculture in Carson City at 8:15 a.m.

This farm tour will feature manure processing technologies and conservation practices that help retain manure nutrients in the rootzone for crop utilization. Highlights of the tour will include manure solids separation, reverse osmosis filtration, anaerobic digestion, harvestable buffers, cover crops for feed, winter manure application, mortality management, recent permitting changes, and more.

Registration is required to attend the tour, online registration is available at <http://events.anr.msu.edu/wnwp15>. There is a registration fee of \$25 for individuals or \$40 for each farming operation. The registration fee includes lunch and program materials.

PMC Hosting Soil Health Workshop

The Rose Lake Plant Materials Center in East Lansing is hosting a soil health workshop on Aug. 27, for conservation professionals.

The workshop is targeted to NRCS, conservation district and other conservationists who assist landowners to improve soil health. Learning opportunities will include soil pits, a rainfall simulator and various assessment tools to evaluate soil health.

The PMC will announce additional details prior to the workshop.

NRCS-Michigan Staffing Update

New Hires:

Corylee Thomas, District Conservationist – Marshall – Transfer in

David Mathews, Office Automation Assistant (ECS) – East Lansing

Olandous Curry, District Conservationist – Gaylord moved to St. Johns

Tamarra Roseburgh, District Conservationist - Monroe

Catherine Croft, Pathways Intern - Grand Haven

Arthur Franke, Pathways Intern – Gladstone

Troy Brooks, Pathways Intern – Hastings

Michael LeBron-Acevedo, Pathways Intern – Bellaire

Jose Rodriguez-Perez, Pathways Intern – Jonesville

Alexis Allen, Pathways Intern – Owosso

Julie Bernstorf, Pathways Intern – Scottville

Darron Felton, Pathways Intern – Saginaw

Dan DeVos, Returning Pathways Intern – Moved from Grand Rapids to Standish

Departures:

Catherine Janiczak, Soil Conservationist – Allegan (Transferred to NRCS Iowa)

Steve Olds, District Conservationist – Ann Arbor – (Retired)

Bruce Green, Soil Conservation Technician – Berrien Springs (Retired)

Upcoming Events - Upcoming Events - Upcoming Events - Upcoming Events

July

- 2 Osceola-Lake Conservation District Soil Health Series, 2 p.m. to 5:30 p.m., Thornton Farm - Reed City, for more information call 231/832-5341
- 11 Breakfast on the Farm, 9 a.m. to 1 p.m., Stakenas Farms - Free Soil, go to breakfastonthefarm.com for more information including free ticket locations
- 11 Aquatic Invasive Species Outreach, Long Lake public boat launch - Cloverdale, contact the Barry Conservation District for more information at 269/948-8056 ext. 3
- 15 Family Fun on the Farm, 11 a.m. to 3 p.m., Kitty Kurtis Farm - Harrison, free lunch provided, contact Clare County Farm Bureau for more information at 989/386-4424
- 15-19 Michigan Livestock Expo, Michigan State University - East Lansing, for more information go to www.milivestock.com
- 25 Ingham Tire Recycling Day, 9 a.m. to 3 p.m., Ingham County Fairgrounds - Mason, for more information go to www.inghamconservation.com or call 517/676-2290
- 25 Breakfast on the Farm, 9 a.m. to 1 p.m., Roto-Z Farm - Snover, go to breakfastonthefarm.com for more information including free ticket locations

August

- 6 An Invitation to a Deer Yard, Forestry Walk - Marquette Regional History Museum Woodland Offshoots Series, 1 p.m., Kawbawgam Road - Chocoday Township, Contact the Marquette County Conservation District at 226-2461 ext 102
- 8 Breakfast on the Farm, 9 a.m. to 1 p.m., Hood Farms Family Dairy - Paw Paw, go to breakfastonthefarm.com for more information including free ticket locations

August ctd.

- 15 Breakfast on the Farm, 9 a.m. to 1 p.m., Wheeler Dairy Farm - Breckenridge, go to breakfastonthefarm.com for more information including free ticket locations
- 19 Seed Collection and Seed Bomb Making, 9 a.m. to 11 a.m., MCCD Trestle Corridor Native Seed Garden - Marquette, for more information contact the Marquette County Conservation District at 226-2461 ext 129
- 21 Montcalm Soil Health Workshop, 9 a.m. to 1 p.m., Bruck Noll Farm - Sheridan, for more information contact the Montcalm Conservation District at 989/831-4606 Ext. 5
- 26 Branch Conservation District Summer on the Farm Field Day, 5 p.m. to 9 p.m., Bennie Farms - Sturgis, for more information call 517/278-2725 ext. 114
- 29 Breakfast on the Farm, 9 a.m. to 1 p.m., Pleasant View Dairy - Jonesville, go to breakfastonthefarm.com for more information including free ticket locations

September

- 4 Soil and Water Conservation Society Highway Cleanup, noon, NRCS State Office - East Lansing
- 12 Isabella County Tire Recycling Collection, 9 a.m. to noon, Isabella County Fair Grounds - Mt. Pleasant, contact the Isabella Conservation District for more information at 989/772-9152 ext.3
- 12 Barry County Outdoor Recreation Youth Day, 10 a.m. to 5 p.m., Charlton Park - Hastings, contact the Barry Conservation District for more information at 269/948-8056 ext. 3

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