



Helping People Help the Land Conservation Notes

USDA - Natural Resources Conservation Service - Michigan

November/December 2019

Ziibimijwang Farm Helps Connect Tribe's Past and Future

Ziibimijwang Farm in Emmet County is a link to the past and the future for the Little Traverse Bay Bands of Odawa Indians. The goal of Ziibimijwang Farm is food sovereignty for the tribe and creating new tribal farmers, said Joe VanAlstine.

VanAlstine serves as chairperson of Ziibimijwang, Inc., a non-profit formed by the tribe to oversee the 311-acre farm. The tribe purchased the farm in 2012 and its name means "the place where food grows near the river," for its location near the Carp River, said VanAlstine. The farm includes about 100 tillable acres with forest making up the rest.

NRCS District Conservationist Bill Borgeld first worked with the tribe's natural resources department on projects ranging from tree planting and fish passages to a tribal aquaculture pond for raising walleye. When the tribe decided to buy a farm, they contacted him for assistance.

Operating the farm has been a challenge, especially keeping a long-term farm manager, but they had a good growing season in 2019. The farm had about \$100,000 in sales, VanAlstine said. The farm sells its harvest at area farmers' markets, tribal events and at Minogin Market, a tribal-owned store in Mackinaw City. The farm also sells wholesale to several area restaurants. Maple products are a popular item at the Minogin Market and at tribal events.

This year's sales included produce from the farm's first harvest from its two seasonal high tunnels. One of the tunnels was built with funding from the NRCS Environmental Quality Incentives Program. We want to be the first farm to have locally-grown tomatoes



NRCS District Conservationist Bill Borgeld, Ziibimijwang Farm Marketing Manager Rosebud Schneider and farm board chairperson Joe VanAlstine stand in a high tunnel built on the farm with assistance from the NRCS Environmental Quality Incentives Program.

available, said VanAlstine. The farm was able to sell tomatoes the first week of July in 2019. EQIP does not pay for heating systems for high tunnels but the tribe is heating both of their tunnels and plans to grow in them year-round.

Revenue produced by the farm will be reinvested in the operation, but revenue is only part of the farm's mission. Just as important is reconnecting the tribe

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State Conservationist's Message

As we move on to the year 2020, this past year will be remembered as an especially challenging and eventful one.

The 2019 planting season was disrupted in much of the state due to wet planting conditions. The Farm Service Agency reported there were 883,699 prevented planting acres in Michigan. In addition to the economic hardship this caused producers, unplanted fields also posed the environmental threat of soil erosion from uncovered soil being carried away by wind and water erosion. NRCS responded by providing financial assistance for applying cover crops in 43 counties on 175,000 acres of unplanted cropland. NRCS-Michigan staff can take pride in coming to the aid of Michigan farmers at a critical time.

Applications were selected for the first round of funding for the Maple Watershed Fish Habitat Improvement project, created through the Regional Conservation Partnership Program. The project includes parts of five counties in Mid-Michigan. The lead partner for the projects is the Institute of Water Research at Michigan State University.

The 2018 Farm Bill was signed into law at the end of that year with implementation still underway. The Farm Bill maintained the agency's strong support for conservation on America's working land. Changes for NRCS programs were modest, although it created a unique funding pool for RCPP. RCPP is an important program for Michigan and it will now have its own funding source rather than being funded through multiple programs such as the Environmental Quality Incentives Program and the Agricultural Conservation Easement Program. RCPP has helped address priority resource concerns in Michigan

by involving new private and public partners and additional funding.

The new Farm Bill also provided a mechanism for farmers to grow industrial hemp. Michigan farmers grew industrial hemp during the 2019 growing season under a program administered by the Michigan Department of Agriculture and Rural Development. Farmers growing hemp under this program are eligible to participate in NRCS conservation programs.



*State Conservationist
Garry Lee*



William "Bill" Bartlett

The year ended on a sad note for the Michigan-NRCS family with the passing of Bill Bartlett on Dec. 10, at age 51 after an extended illness. Bill served NRCS as a soil conservation technician and civil engineering technician for over 20 years, he spent those years serving counties in Areas 3 and 4 in lower Michigan. During his years of service, Bill made a significant contribution to protecting natural resources most recently in Mid-Michigan and the Thumb region. His knowledge and skills were utilized in supporting

the EQIP and Emergency Watershed Protection Program. He was well liked by his coworkers and the public he worked with and he will be greatly missed.

Bill is survived by his three children. I offer my sincerest condolences to Bill's family, friends, and coworkers.

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Ziibimijwang Farm Helps Connect Tribe's Past and Future

with its agricultural heritage and other traditions. The tribe learned that a variety of heirloom corn in a collection at the University of Michigan was last grown by their ancestors. They are now growing the corn and teaching tribal members how to process it into corn meal and hominy, said Rosebud Schneider, market manager for the farm.

The farm has a three-sisters garden that includes heirloom varieties of corn, squash and beans. The three plants are staples and compliment each other when grown together, said VanAlstine. Tribal members are invited to help plant and harvest and learn how to preserve and utilize food grown on the farm. The tribe needs to produce more farmers, said VanAlstine. "I had to go to Detroit to get this one," he joked referring to Schneider. Schneider is a tribal member and worked in the food sovereignty program for American Indian Health and Family Services in Detroit before moving to Emmet County. Skill sharing is part of the farming operation at Ziibimijwang, she said. Skill sharing at the farm extends beyond farming, the farm has hosted lacrosse stick making workshops and tribal youth made drums from deer harvested from the farm.

In addition to getting young people involved in agriculture, Ziibimijwang is also looking to the future regarding climate change. The tribe is utilizing EQIP funds for planting trees and shrubs that may be better adapted to warming conditions. The tribe is planting trees and shrubs on the farm that typically grow in slightly warmer climates than northern Michigan. Some of the species planted include shagbark hickory, American plum, tulip tree, American hazelnut and Allegheny serviceberry, said Borgeld. The tribe will monitor the plantings to see which species are best suited to conditions on the farm.

VanAlstine, Schneider, and others involved with the farm have no shortage of ideas of how to further utilize the farm in the future. VanAlstine, who works for the tribe as its food distribution manager, would like to provide more traditional foods to tribal members who receive food through USDA programs. He would also like to see the farm become a food hub for northern Michigan. "The Odawa have always been traders."



The Little Traverse Bay Bands of Odawa Indians purchased Ziibimijwang farm in 2012. (above) The farm has a refrigerated truck to bring produce to its store in Mackinaw City as well as area farmers markets and events. (right) Joe VanAlstine, chairperson of the farms managing board, shows ears of tribal heritage corn grown on the farm. (below) The farm grows a variety of produce both outdoors and in two seasonal high tunnels.



To Bloom Again: Can Prairie Restoration Overcome Habitat Loss?

by Meredith Zettlemoyer & Nicholas Srodes

Prairie once covered millions of acres across the Midwest, but now only fragmented patches remain. In fact, Michigan hosts only 0.1 percent of its historical prairie acreage. Why this wipe-out? Prairies have nutrient-rich soils and deep-rooted plants that retain water – a recipe for successful croplands. Prairie loss to agricultural conversion, suburban development, and inadequate management spills over to affect pollinators, birds, and wildflowers.

Kalamazoo County's story is no different. Before settlement, the county boasted 21,576 acres of prairie habitat. Using Geospatial Information Systems (GIS), Nicholas Srodes, an undergraduate at Michigan State University, determined that only 130 acres of remnant (historically occurring) prairie remained in 2004 (Fig. 1). That's 0.006% - if your bedspread was all the prairie that once existed here, only a patch the size of a dime would be left.

That estimate helps scientists predict how many species should be supported in a particular region. Srodes used a classic ecological theory, the species-area relationship (SAR), to estimate how many prairie species should be left based on the remaining habitat. The SAR predicts that the number of species should increase with land area – and on the flip side, that species losses should be proportional to habitat loss. According to this model, Kalamazoo County should only have three prairie species left.

However, thanks to intense efforts by conservation groups, land managers, and scientists to restore 5,113.5 acres of prairie habitat, Kalamazoo still hosts 141 native prairie plant species. In a prairie

restoration, land stewards and scientists try to bring back the historical biodiversity and function of a prairie, whose native grasses provide a home to a variety of wildlife. Even species that disappeared over the last several decades have started to make a comeback in some of these restored prairies. In 29 restored prairies throughout southwestern Michigan, researchers introduced 8 prairie species that haven't been recorded in naturally-occurring populations in Kalamazoo County since the 1940s. Three of those species – compass plant (*Silphium laciniatum*), prairie dock (*S. terebinthinaceum*), and purple coneflower (*Echinacea purpurea*) – have successfully established in sites across the region following reintroduction.

Unfortunately, this isn't enough. We might have more than 3 prairie species on 130 acres, but the SAR predicts 5,114 acres of restored prairie habitat should support 164 species. Why, then, do only 141 persist? Meredith Zettlemoyer, a graduate student at Michigan State University's Kellogg Biological Station, is conducting experiments to test what other factors might

have impacted species losses in Kalamazoo County by reestablishing populations of extinct species like the Mexican hat coneflower (*Ratibida columnifera*), slender mountain mint (*Pycnanthemum tenuifolium*), and pale beardtongue (*Penstemon pallidus*). For example, remnant and restored prairies are often surrounded by agricultural land, so one likely threat is increasing levels of nitrogen fertilization. If we can determine threats to local prairie species and learn to manage them, restored prairies may offer a way to reintroduce these wildflowers into our prairie communities.

Meredith Zettlemoyer is a participant in the NRCS Earth Team Volunteer program.

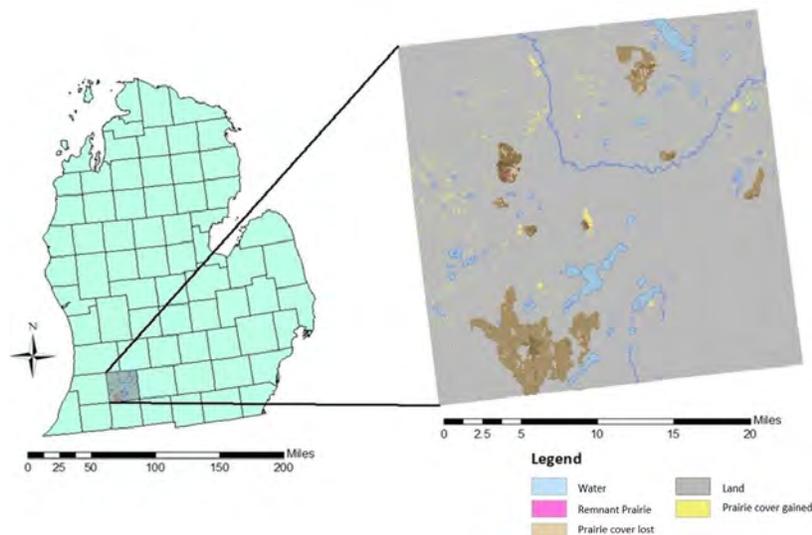


Fig. 1. Kalamazoo County, in southwestern MI, once provided more than 21,000 acres of prairie habitat for native grasses, wildflowers, birds, and insects. Today, only 130 acres of prairie remnant remain (prairie cover lost is shown in brown), although restored prairie (yellow) provides hope for this threatened habitat and its residents.

TNC Honors Saginaw Bay Area Farmers and Ag Leaders

The Nature Conservancy

Farmers, agriculture professionals and industry leaders were honored by The Nature Conservancy at their Saginaw Bay Agricultural Conservation Awards on Dec. 11.

The “Ag Awards” celebrate excellence and achievements by Saginaw Bay area farmers, agribusinesses and conservation professionals who have made significant contributions to agricultural conservation in the watershed. More than 170 people attended, including TNC leaders and agricultural industry professionals.

Winners were given the following awards:

Conservation Excellence Award: Contributor

Method Products, PBC, San Francisco, Calif. for work in Huron County

Conservation Excellence Award: Practitioner

Joel Leland, Saginaw Conservation District, Saginaw

Conservation Excellence Award: Agribusiness

Justin Krick, Star of the West Milling Company, Frankenmuth

Conservation Newcomer Award:

Nick Weisenberger, Weisenberger Farms, LLC, Chesaning

Conservation Veteran Award

Jason Haag, Unionville

Conservation Innovation Award

Ryan and Melissa Shaw, SKS Farm, Marlette

Conservation Impact Award

Jeffery Krohn, Krohn Acres, LLC, Owendale

“TNC shares a common goal with farmers,” said Helen Taylor, TNC’s state director for Michigan. “We all want a thriving and resilient Saginaw Valley.”

Taylor noted that Michigan has a \$13 billion agricultural economy, which provides 22 percent of

the state’s employment. One-fifth of the acres that drive the state’s agricultural productivity are located in the Saginaw Bay Watershed, identified by TNC scientists as a priority area for the entire Great Lakes ecosystem.



Melissa and Ryan Shaw were among those honored by The Nature Conservancy at its Saginaw Bay Ag Awards event on Dec. 11. The Shaws received TNC’s Conservation Innovation Award.

- photo by Michael David-Lorne/DLP

The 2.5-million-acre watershed features Michigan’s highest concentration of prime farmland and rich soils that allow for diverse crop rotations and higher yields than many other areas of the Midwest. In addition to agriculture, Saginaw Bay itself is vital because it provides drinking water to local communities, supports a thriving recreational fishery and boating industry, attracts thousands of visitors each year and is a critical area for migratory birds.

“The people and species who live here depend on healthy soil and clean water for their own health, habitats, jobs and recreational

opportunities,” Taylor said. “It’s a place worth protecting, for nature and for people.”

From 2015 to 2019, TNC’s soil health and nutrients strategy in Saginaw Bay Watershed has changed practices across 67,400 acres, resulting in: 140 farms cooperating; 21,600 pounds of phosphorus kept out of waterways; more than 5,000 verified tons of sediment reduction; and 760 million liters of groundwater replenishment.

“Being able to work with groups like the USDA or TNC makes a difference,” said Nick Weisenberg, this year’s award winner in the Newcomer category. “Being a fourth-generation farmer is important to me and we have definitely learned that a cover crop option is cheap tillage, cheaper soil management and provides benefits to keep the farm operation running for the next generation.”

The award recipients were based on nominations sent from local community members and chosen by the Awards Selection Committee, which included representatives from Michigan Association

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MSU Extension Offers Beginning Farmer Online Series

by James Isleib, MSU Extension

People who are exploring new farm businesses will benefit from participating in the Michigan State University Extension 2020 [Beginning Farmer Webinar Series](#).

New and expanding farm businesses provide jobs, income, increased economic and social stability, and increased food security to rural and other communities. Providing basic, practical information on sound production practices, business management and marketing to people interested in, or already engaging in, new and expanding farm enterprises of any size helps these small businesses succeed.

From January to April 2020, MSU Extension will offer 13 one-hour long online programs that will take place Wednesday evenings at 7 p.m. EST. These programs will provide valuable start-up information on general and more specific farming topics, including:

“Getting started with...”

- New farm start-up – Jan. 15
- Wash-pack facilities – Jan. 22
- Michigan cottage food – Jan. 29
- Growing hemp in Michigan – Feb. 5
- CSAs in Michigan – Feb. 12
- Safe use of animal-based soil amendments – Feb. 19
- Agroforestry: Silvo-pasture options – Feb. 26



- Selling to food hubs – March 4
- Farm labor – March 11
- No-till vegetable production on small scale – March 18
- Pricing products for different markets – March 25
- Hosting on-farm educational events – April 1
- Measuring soil health – April 8

Participate from the comfort and convenience of your own home or office. A fee of \$5 per webinar is required, or you can register for the entire series for \$32.50. Webinar recordings will

be provided to all registered participants. A high-speed internet connection is required. You will receive webinar connection information after you register.

Registration, a brochure containing details on each individual program and online or mailed payment options can be found at Beginning Farmer Webinar Series 2020. You may register for all or any of the courses at any time, even if the session has already taken place. In that case, you will get a link to the recorded program.

If you experience any problems with registration, please contact the Alger County MSU Extension office at 906/387-2530 or isleibj@msu.edu.

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TNC Honors Saginaw Bay Area Farmers and Ag Leaders

of Conservation Districts, Natural Resources Conservation Service, Farm Bureau, Michigan Agri-Business Association, Michigan Department of Agricultural and Rural Development and the Delta Institute.

For about the Conservancy's work in Saginaw Bay, contact Mary Fales at 517-316-2278 or mfales@tnc.org. Fales said the event was made possible thanks to support from: Agri Drain Corporation, The Andersons, Blue Water Conservation District, Carhartt, Cook Family Foundation, DTE Foundation, GreenStone Farm Credit Services, Michigan

Department of Environment, Great Lakes, and Energy, Michigan Sugar Company, Midland Brewing Company, Nutrien Ag Solutions, Saginaw Conservation District, Star of the West and Syngenta.

See more about the awards at www.nature.org/saginawsoilhealth. TNC is a global conservation organization dedicated to conserving the lands and waters on which all life depends. Guided by science, we create innovative, on-the-ground solutions to our world's toughest challenges so that nature and people can thrive together. Learn more online at nature.org/michigan.

Fight is on to Save Michigan's Eastern Hemlocks



(above left) Natureology's Maureen Stine, NRCS Earth Team Volunteer, and Ottawa County Conservation District's Forest Pest Technicians: Holly Mrozinski, Keely Dunham-Adkins, and Brittney Beavers (above center) Natureology's Maureen Stine drilling holes in hemlock for insecticide application (above right) Hemlock woolly adelgid ovisacs

by Maureen Stine, Earth Team Volunteer

The Eastern Hemlocks (*Tsuga canadensis*) are among the oldest living trees in Michigan. An estimated 170 million hemlocks are found in Michigan providing essential wildlife habitat and forage.

For approximately seven decades, the majestic species has been under assault from the Hemlock woolly adelgid (HWA), a tiny insect originating from Japan and likely brought to the U.S. and introduced through nursery stock.

Specifically targeting hemlock trees as their food and reproductive source, HWA sucks moisture and nutrients from a hemlock's needles and shoots. HWA can be found feeding at the base of needles where they attach to woody shoots and are best seen on the underside of a branch.

Measuring 1.5 mm in length, HWA is difficult to see but can be identified by finding the white, woolly masses, called "ovisacs." Winter is an ideal time to search for the woolly masses. The infestation is currently dominant in Western Michigan.

Unlike many invasives, all is not lost in the fight to control the spread of HWA through Michigan. Several unique factors are yielding positive outcomes in containing the spread of the pest. These include the microclimate of Western Michigan, impact from our severe winter seasons, and highly effective coordinated partnerships with federal funding partners including the Michigan Department of Natural Resources, the West Michigan Hemlock Woolly Adelgid Taskforce, the Cooperative Invasive Species Management Areas, Michigan Association of Conservation Districts and Natureology.

HAPPY NEW YEAR FROM NRCS-MICHIGAN



Upcoming Events - Upcoming Events - Upcoming Events - Upcoming Events

January

- 14 Timber Tax Workshop, 5 to 7 p.m., Manistee County Transportation - Manistee, for more information go to meap.org/events
- 15 Fly & Pest Control in Livestock Workshop, 6 p.m. to 8 p.m., Bruce Township Hall - Dafter, for more information go to meap.org/events
- 15 Eyes on the Forest: How to be the Best Steward of Your Trees and Forest, 2 p.m., Leland Township Library - Leland,
- 15 Timber & Taxes Workshop, 6:30 p.m. to 9:30 p.m., Boardman River Nature Center - Traverse City, for more information and to register call 231/256-9783
- 15 Tree Pruning Workshop, 2 p.m. to 4 p.m., Antrim Conservation District - Bellaire, for more information go to www.antrimcd.com
- 16 Fly & Pest Control in Livestock Workshop, 6 p.m. to 8 p.m., Garfield Township Hall - Engadine, for more information go to maeap.org/events
- 16 Managing Invasive Species, 9 a.m. to noon or 1 p.m. to 4, Kent Conservation District - Grand Rapids, for more information call 616/222-5801 or go to eventbrite.com
- 18 Forest Harvest Field Day, 10 a.m. to 2 p.m., Superior Township Hall - Brimley, for more information go to maeap.org/events
- 22 Smart Management of Microplastics in the Great Lakes, 12:30 to 1:30 p.m., Williamston Senior Center - Williamston, for more information go to www.inghamconservation.com
- 24-25 Northern Michigan Small Farm Conference, Grand Traverse Resort - Acme, for more information go to smallfarmconference.com
- 29 Great Lakes Crop Summit, 8 a.m. to 2:30 p.m., Soaring Eagle Casino & Resort - Mt. Pleasant, for more information go to www.greatlakescropsummit.com

February

- 4 Kalamazoo County Citizen Science Panel, 7 to 8:30 p.m., Oshtemo Community Center - Kalamazoo, for more information call 269/775-3368
- 5 Municipal Invasive Species Training, 9:30 a.m. to 2:45 p.m., Ingham County Road Department - Mason, for more information go to www.inghamconservation.com

February ctd.

- 8 Michigan Family Farms Conference, 8 a.m. to 4:30 p.m., Kalamazoo Valley Community College - Kalamazoo, for more information go to miffs.org
 - 8 Beginning Grass-Fed Beef Production Workshop, 10 a.m. to 3 p.m., Waishkey Bay Farm - Brimley, for more information go to maeap.org/events
 - 13 Raising Sheep for Food & Fiber, 6 p.m. to 8 p.m., Rudyard Township Hall - Rudyard, for more information call 906/635-1278
 - 13 Managing Invasive Species, 9 a.m. to noon or 1 p.m. to 4, Kent Conservation District - Grand Rapids, for more information call 616/222-5801 or go to eventbrite.co
 - 19 Managing Invasive Species, 9 a.m. to noon, Kent Conservation District - Grand Rapids, for more information call 616/222-5801 or go to eventbrite.com
 - 20 Tree Selection - How to Decide What to Plant, 6:30 to 8:30 p.m., Schrier Park - Portage, for more information call 269/775-3368
 - 28 Tree & Shrub Planting Presentation, 2 to 4 p.m., Sherman Township Hall - Fountain, for more information go to maeap.org/upcoming_events
 - 29 Timber Tax Workshop, 1 to 3 p.m., St. Ignace Public Library - St. Ignace, for more information go to maeap.org/upcoming_events
- ## March
- 3 The Great Lakes: Tackling Challenges Today and Beyond, 9 a.m. to 4 p.m., MSU Kellogg Center - East Lansing, for more information go to www.canr.msu.edu/events
 - 7 Tree Care Workshop, 9 a.m. to 12:30 p.m., Prince of Peace Church - Ida, for more information go to maeap.org/upcoming_events
 - 18 Assisted Tree Range Expansion & Spring Planting Workshop, 6:30 to 8:30 p.m., Leelanau County Government Building - Suttons Bay, for more information call 231/256-9783
 - 18 Woodlot and Forest Management, 6 to 8:30 p.m., Drake Farmstead - Kalamazoo, for more information call 269/775-3368
 - 19 Food Forages Workshop, 6 p.m. to 8 p.m., Pickford Township Hall - Pickford, for more information call 906/635-1278 or go to www.clmcd.org Portage, for more information call 269/775-3368

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