



PROGRESS REPORT OF ACTIVITIES 2015 USDA-NRCS Rose Lake Plant Materials Center

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TEACHING AND LEARNING AT ROSE LAKE PMC

Continued opportunities for teaching and learning in natural resources conservation, a cover crop adaptation trial in concert with 24 other PMCs, hiring a new agronomist, and release of ‘Sholty’ yellow-flowered alfalfa were major developments at Rose Lake PMC in 2015.

farmer clients and the environment which they steward.

Other Rose Lake PMC guests in 2015 included college students, agency staff, and tribal representatives. These interactions increased participants’ understanding of the role of plants in natural resource conservation and provided many attendees with skills to use now or later as conservation service providers.



Christina Curell (Michigan State University Extension Educator) facilitates observation of switchgrass rooting in long-term, undisturbed site.

“Digging Deeper in Soil Health” in August 2015 provided hands-on teaching/learning. It was hosted at Rose Lake PMC and taught by Michigan State University Extension Educators and Michigan NRCS staff with NRCS, District, and Extension staff in attendance. As the name suggests, the all-day activity provided in-the-pit training in soil health which will ultimately benefit our



Bruce Van Den Bosch (Allegan District Conservationist) and Shawn McKenney (Environmental Specialist, Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians) with native sweetgrass.

Helping People Help the Land

USDA IS AN EQUAL OPPORTUNITY PROVIDER AND EMPLOYER

An outdoor classroom frequented by Rose Lake PMC visitors and learners is the Jerome Center for Native Plant Establishment. The Jerome Center was formerly an autumn olive and crown vetch-infested abandoned pasture, and is now used to demonstrate 64 combinations of these treatments for establishing prairie:

- Glyphosate-resistant soybeans in transition year before prairie establishment vs. no transition year
- fall vs. spring seeding
- temporary cover vs. clear seeding
- drill vs. broadcast and cultipack
- flower seeding followed by grass seeding vs. grass followed by flower vs. simultaneous
- mowing vs. no mowing

Additionally, in fall 2015 after wildflower senescence, strips of 2,4-D amine treatment and control were superimposed on plots where autumn olive and crown vetch had become a problem.



Treatments: no soybeans; drill; temporary cover; mowing; flowers in spring 2014; prairie grass in spring 2014.

In recognition of Rose Lake PMC's role in providing natural resource conservation opportunities to hundreds of Shiawassee County farmers, FFA/agri-science students, and conservation planning staff, Rose Lake PMC was named the Shiawassee Conservation District's Conservation Partner of the Year.



Recognition from Shiawassee Conservation District.

Ongoing technology development at Rose Lake PMC relates to reed canarygrass suppression; vegetative barriers for odor, snow, and soil erosion control; cover crops and soil health; and forest tree establishment.



Evaluation of wildrye cover crops in tree establishment study at Rose Lake PMC.

COVER CROP ADAPTATION TRIAL

Rose Lake PMC made initial plantings of red clover and cereal rye in a multi-year, randomized, and replicated cover crop adaptation trial. Additional species to be trialed in 2016 will likely include oats, black oats, crimson clover, and Austrian winter pea. This nationally coordinated study will provide growth data from which localized, variety-specific recommendations on soil health-improving cover crops may be made.



Red clover and cereal rye cover crop plots at Rose Lake PMC. November 2015.

STAFFING CHANGES

After more than 13 years of service at the Center, Office Automation Assistant Elaine Gerona retired. She looks forward to spending more time with her four grandchildren.



Oliver W. Freeman II arrived in Michigan in August 2015. After five months as a Soil Conservationist in the Bad Axe office he was promoted to Rose Lake PMC Agronomist effective December 28, 2015.

Dr. Freeman earned a PhD in Agronomy from Kansas State University where his dissertation research related to benefits of cover crops to corn and sorghum. He was

born and raised on a vegetable and melon farm in South Carolina.

Welcome Oliver!



Left to Right: John Durling, Manager; Sergio Pérez, Bio Sci Tech; Oliver Freeman, Agronomist.

Dr. John Durling is in his second year as Rose Lake PMC Manager and in his 11th year at the Center. Biological Sciences Technician Sergio Pérez is in his 19th year at the Center. With several part-time workers and Earth Team Volunteers they complete the staff at Rose Lake PMC.

ROSE LAKE PMC RELEASES AND CONSERVATION PRACTICES

Rose Lake PMC releases include native prairie grasses, forbs, shrubs, and trees – 21 in all. They are available in small quantities to commercial seed or nursery growers who increase and make them commercially available. Commercial sources of Rose Lake Releases are listed in **Biology Technical Note #19: Availability of Conservation Plant Releases from Rose Lake Plant Materials Center** on the website (<http://plant-materials.nrcs.usda.gov/mipmc/>). Biology Technical Note #19 is updated annually.

USDA-Tested Plants Address Natural Resource Concerns, also updated annually, suggests which of these 21 current releases are most applicable to each of 25 Conservation Practice Standards.

A 22nd release, known as ‘Sholty’ yellow-flowered alfalfa, is wending its way through the system (i.e. South Dakota State University, Michigan State University, Bismarck PMC, Rose Lake PMC, and USDA Ecological Sciences Division). ‘Sholty’ is an “affectionate” nickname from Siberia from where yellow-flowered alfalfa was imported to the Dakotas more than a century ago. Adaptation to areas with low precipitation and cold winters, more branching and fibrous tap roots,

indeterminate flowering, and less observed insect and disease injury than in the more common purple-flowered alfalfa have contributed to a growing interest in yellow-flowered alfalfa among researchers, Extensionists, and producers. Foundation seed of ‘Sholty’ will be available on an exclusive basis to seed producers who contractually agree to produce and market seed.



'Sholty' yellow-flowered alfalfa behind deer exclusion fence.

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