

A close-up photograph of a sunflower with bright yellow petals and a dark brown center, set against a background of green leaves and other sunflowers.

*Rose Lake
PMC
September,
2007
Newsletter*

*Koch Germplasm Prairie Sandreed
New Release from
Rose Lake Plant Materials Center*

The Rose Lake Plant Materials Center, in cooperation with the Michigan Association of Conservation Districts, released a selected class prairie sandreed (*Calamovilfa longifolia*) for use as a conservation plant. Koch Germplasm prairie sandreed, named in honor of former PMC Manager Phil Koch, is a tall, upright grass that will be used in sand dune and sandy soil stabilization.



Koch Germplasm prairie sandreed was developed through three cycles of phenotypic recurrent selection. Four parent lines were selected from a large collection of prairie sandreed and allowed to cross pollinate. Seeds from that pollination cycle were planted and individual plants were selected that demonstrated the characteristics desired, including early vigor, upright growth habit, and no incidence of insect or disease damage. That cycle was completed two additional times and the final result was the G1 production field of Koch Germplasm prairie sandreed. A G2 seed production field was established at the Rose Lake Plant Materials Center in 2004.

Limited quantities of Koch Germplasm prairie sandreed seed will be available to commercial seed producers starting in 2008. Interested commercial seed producers can contact Plant Materials Specialist Dave Burgdorf at 517-641-7831 or by email at dave.burgdorf@mi.usda.gov for additional information.

Dedication Ceremony Honored Contributors to Prairie Sandreed Release



Robert Escheman, Plant Materials National Program Leader presenting Jan Koch, widow of Phil Koch with a certificate of appreciation.



L-R: Brian Mac Master, Dorian Carroll and Ellis (Bill) Humphrey were also presented with certificates of appreciation.

A ceremony to recognize the contribution of past Plant Materials Program personnel to the development and release of Koch Germplasm prairie sandreed was held on September 5, 2007. Koch Germplasm prairie sandreed was released through the NRCS Plant Materials Program in August. It was named in honor of Philip Koch (deceased) who was the agronomist and manager at the Rose Lake PMC in the 1990's.

Phil's widow and children received certificates of appreciation from Bob Escheman, Plant Materials National Program Leader, recognizing the important role that Phil had in developing this plant release. Also recognized during the ceremony were Dorian Carroll, retired Plant Materials Specialist, Ellis "Bill" Humphrey, retired PMC Manager, and Brian MacMaster, former Biological Science Technician and Agronomist at the Rose Lake PMC. Dorian and Bill collected several of the original parent materials that were used in developing the release and Brian was on staff at the PMC when the initial field development trials were conducted.

National Plant Materials Technical Committee

The National Plant Materials Technical Committee held their fall meeting at the Rose Lake Plant Materials Center on September 5 – 6. National Program Leader Bob Escheman chaired the committee, which discussed technical issues affecting the Plant Materials Program. Other Committee members included Joel Douglas and Jim Briggs, Regional Plant Materials Specialists, Dave Burgdorf, Dan Ogle, and Mimi Williams, Plant Materials Specialists, and Ramona Garner and Rich Wynia, Plant Materials Center Managers.



National Technical Committee touring the Rose Lake PMC

L-R: Joel Douglas, Rick Wynia, John Leif, Mimi Williams, John Englert, Jim Briggs, Bob Escheman (foreground) and Dan Ogles

State Plant Materials Committee Meetings Held at Rose Lake PMC

An integral part of the direction and function of the Plant Materials Program is the activity of the State Plant Materials Committees. Those committees act as a liaison between the NRCS Field Offices and the Plant Materials Program, providing guidance to the Plant Materials Program on conservation issues and needed plant materials and technology. The committees work with Field Offices to locate and establish field plantings that evaluate the performance of plants and plant technology for addressing resource concerns. The committees also work to keep the NRCS Field Offices informed of the products and technology available through the Plant Materials Program and encourage Field Offices to recommend Plant Materials Program products to their customers.

The Indiana State Plant Materials Committee met at the Rose Lake Plant Materials Center on August 18 – 19. The emphases of the meeting was to develop a business plan for 2008 that identified and prioritized the projects that they would address. The Committee identified the need to evaluate plant establishment on muck soils as a priority for 2008. Working on alternatives to Reed Canarygrass in moist soils was another high priority item.

The following week the Michigan State Plant Materials Committee met at the Rose Lake PMC. This Committee was re-established in 2007 with Area Resource Conservationists and Field Office staff from each NRCS administrative area as members. NRCS State Forester Tom Ward is the Chairperson of the Committee.

The Michigan Plant Materials Committee reviewed the purposes and progress of conservation field plantings in the State, and discussed additional field plantings for 2008. The Committee participated in a field tour of a vegetative barrier project and a shoreline stabilization demonstration that was established at the Kellogg Biological Station near Battle Creek, MI. The committee also toured an ammunition bunker vegetation project, and grass seed production fields at the Ft. Custer Military Training Center that the PMC has been conducting in cooperation with the Ft. Custer MTC Environmental Office.

The Michigan Committee identified vegetative barriers technology as a top priority for the 2008 business plan. Committee members will be working to identify sites for additional vegetative barriers and a field location to test the pollination potential of a miscanthus grass selection from the PMC. Additional projects will include warm season grass establishment, tree establishment, biofuels and addressing silage leachate issues.



Michigan PM group touring the shoreline stabilization project at Kellogg Biological Station



Group inspecting the ammunition bunker project at Ft. Custer Military Training Center



The miscanthus water filtration system put in by Rose Lake PMC



Touring the field of Big Bluestem and Indian-grass where 30,000 plants were transplanted at Ft. Custer Military Training Center



2007 Conservation Field Plantings

A hallmark of the Plant Materials Program is the testing and evaluation of plant materials for their effectiveness in conservation practices. The selection and testing process starts with comparative evaluations of collected materials, usually in small plots on the Center and off-Center locations. When candidates for release have been identified seed and plants are provided to other PMC's and Field Offices for further evaluation. An important part of that evaluation process is conservation field plantings – evaluating plant materials under conditions similar to their intended use. Data from those plantings are used to further define the utility of a plant release and provide support for including those releases in States' respective eFOTG's.

The Rose Lake PMC requested conservation field plantings in Indiana, Michigan, Ohio, and Wisconsin in 2007. Icy Blue germplasm Canada wildrye, Koch germplasm prairie sandreed, and a riverbank wildrye selection were offered to field offices throughout the PMC service area to be installed in areas where Conservation Cover or Critical Area Planting practices would be used.

The following conservation field plantings have been established to date:

Wexford County, Michigan – Icy Blue germplasm Canada wildrye

Arenac County, Michigan - Riverbank wildrye

Antrim County, Michigan – Icy Blue germplasm Canada wildrye
Riverbank wildrye
Koch germplasm prairie sandreed

Juneau County, Wisconsin – Icy Blue germplasm Canada wildrye
Riverbank wildrye
Koch germplasm prairie sandreed

The Rose Lake PMC wishes to thank those NRCS Field Offices and cooperators that participated in the 2007 conservation field planting effort. Plant materials are still available for additional test sites. Please contact Dave Burgdorf, Plant Materials Specialist, for additional information.

Root Photography at Rose Lake PMC

The greenhouse at Rose Lake PMC morphed into a photo studio once a week. Plants and roots were photographed by Michigan NRCS Public Affairs Specialist Brian Buehler as part of a new plant technology study initiated this spring.

Shrub Rooting Study MIPMC-T-0702-RI was established to demonstrate and compare the growth and rooting ability of dormant woody plant materials. Sixty-nine tree and shrub entries were evaluated. They were assembled from among releases by Rose Lake and a dozen other PMCs, native plants of the Great Lakes Region, and other sources.

Two-foot long dormant cuttings were placed horizontally below the soil media surface in optimum-growth, greenhouse conditions. Shoot emergence and growth data were recorded. Whole plants, including root systems, were harvested, washed, and photographed. Photos and data will be compiled in a technical document on bio- or soft engineering. A similar process was used with vertically positioned cuttings.

Soil bio- or soft engineers commonly use dormant cuttings of tree and shrub species (e.g. willow and button-bush) for stream corridor and shoreline stabilization. Dormant plants are placed in the ground as fascines (horizontal bundles of sticks) or live stakes. Rose Lake PMC's study quantitatively and photographically documents the potential suitability of various species for these applications. With the development of a NRCS Plant Materials Technical Note from this study, the Rose Lake PMC will transfer state-of-the-art applied science technology in stream corridor and shoreline stabilization.

A special thanks to the following PMCs who contributed material to this study:

California PMC

New York PMC

Florida PMC

Suny College, Syracuse, NY

West Virginia PMC

Idaho PMC

Oregon PMC

New Mexico PMC

Washington PMC

Kingsville, TX PMC

Colorado PMC

Mississippi PMC



Collections Needed

The Rose Lake Plant Materials Center is collecting populations of American plum, broomsedge bluestem, buttonbush, and coralberry for testing and evaluation as conservation plants. The Center is asking NRCS staff, Conservation District employees, and conservation partners to collect plant material of these species and send them to the Rose Lake PMC.



Buttonbush
Cephalanthus occidentalis L.



Broomsedge Bluestem
Andropogon virginicus L.



Coralberry
Symphoricarpos orbiculatus Moench



American Wild Plum
Prunus Americana Marsh.



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