UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
EAST LANSING, MICHIGAN

and

MICHIGAN ASSOCIATION OF CONSERVATION DISTRICTS
EAST LANSING, MICHIGAN

NOTICE OF RELEASE OF KOCH GERMPLASM PRAIRIE SANDREED SELECTED CLASS OF GERMPLASM

The Natural Resources Conservation Service, U.S. Department of Agriculture announces the naming and release of Koch Germplasm prairie sandreed [*Calamovilfa longifolia* (Hook.) Scribn. var. *magna* Scribn. & Merr.] as a selected class germplasm. Koch Germplasm prairie sandreed is named in honor of Philip L. Koch (deceased) who was the agronomist and became the manager at the Rose Lake Plant Materials Center while the prairie sandreed breeding and evaluation program was conducted.

Koch Germplasm prairie sandreed has been assigned the NRCS accession number 9086408 and the PI number _____. Current demand and conservation need for this material support its pre-varietal release.

Collection Site Information: Seed and vegetative materials of four parents were collected from native stands of prairie sandreed in costal zones along Lakes Michigan and Huron. Original accession numbers and site locations are listed in Attachment A.

Description: Prairie sandreed is a perennial, native, warm-season grass that grows stalks from 2 to 6 ft tall with open, spreading panicles and scaly rhizomes. Flowers are wind pollinated. There are approximately 275,000 seeds per pound of seed. As the name implies, prairie sandreed is adapted to coarse textured soils.

As described in the Prairie Sandreed Plant Guide in the Plants Database (USDA-NRCS. 2007) Prairie Sandreed is in the Grass Family (Poaceae). "Prairie sandreed is a tall, coarse, stemmy, open sod forming grass found on sandy soil sites in typically low precipitation zones. Its coarsely fibrous root system augmented by scaly, spreading rhizomes produces an effective sand binding species. The culms are 1.0 to 1.5 meters (3-5 feet) tall, arising singly and are attached to the stout, spreading rhizomes. Leaves are mostly cauline, pale green to straw colored. Leaf blades are rigid, flat to rolled, hairless, 30 cm (12 inches) long or longer, tapered to a drawn out tip. The ligule is short and hairy and the collar is hairy inside. Inflorescence is a panicle 15 to 35 cm (6-13 inches) long, semi-open and wider in the middle. Spikelets are pale, shiny, and one flowered. The lemmas are awnless and densely hairy at the base. It flowers from August to September and, and like most grasses, is wind pollinated. Prairie sandreed possesses the C-4 photosynthetic pathway for carbon fixation (Waller and Lewis, 1979).

"Prairie sandreed is drought tolerant and adapted to mean annual precipitation of less than 25 cm up to 50 cm (10-20 inches). It is predominately found growing in clumps or colonies on coarse or sandy soil types. It will grow on soils that are somewhat alkaline, but it is not tolerant to salt."

Method of Breeding and Selection: Koch Germplasm prairie sandreed was developed through three cycles of recurrent phenotypic selection from four promising parental accessions collected as described above. Selection was for upright growth habit, seed production, and general vigor.

Ecological Considerations and Evaluation: Koch Germplasm prairie sandreed was determined "OK to release" when evaluated through the "Environmental Evaluation of NRCS Plant Releases" worksheet (Attachment C). Koch Germplasm prairie sandreed is native to the Great Lakes Region and should not differ in rate of spread, seed production, vigor, nor behavior from naturally occurring prairie sandreed in the Great Lakes Region.

Conservation Use: The anticipated uses of Koch Germplasm prairie sandreed include wind erosion control, dune stabilization, and water quality improvement in costal zones of the Great Lakes Region and other sandy areas.

Area of Adaptation: This species is found throughout much of the central and northern United States, excluding New England. In the Great Lakes Region it grows in sand dunes and beaches of the Great Lakes. Although the full range of adaptation of Koch germplasm is unknown, its anticipated areas of adaptation include MLRAs 96-99 where the original parental lines were collected. Field planting evaluations will be performed to verify Koch germplasm's adaptation to MLRAs in the Great Lakes Region.

Availability of Plant Materials: Seed stock of Koch Germplasm prairie sandreed will be maintained by the USDA NRCS Rose Lake Plant Materials Center and made available to qualified parties for increase purposes. To request seed or further information contact:

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7472 Stoll Road
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References:

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Signatures for the release of:

Koch Germplasm prairie sandreed [*Calamovilfa longifolia* (Hook.) Scribn. var. *magna* Scribn. & Merr.]

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