

# **Rose Lake Plant Materials Program**

## Spring Newsletter 2008

### **Vegetative Barrier Project**

The Rose Lake Plant Materials Center, in conjunction with NRCS Ecological Sciences, has been evaluating plant species and establishment techniques for vegetative barriers. Vegetative barriers are strips of vegetation planted across a concentrated flow area in a field. The purpose of the vegetative barrier is to moderate gully formation and provide for sediment deposition on the upstream side of the barrier.

Field plantings in the mid-1990s included big bluestem, switchgrass, eastern gamagrass, and miscanthus (Chinese silvergrass). These species did not provide adequate protection against gully formation when seeded or individually planted A technique was developed growing miscanthus or eastern gamagrass sod strips in the greenhouse and transplanting them into the field in 2002 and 2003. Plant density was higher in the strips than in plug plantings, and the coir fiber support provided additional stability during establishment.

The Michigan NRCS Plant Materials Committee expressed interest in the sod strip establishment technique as an alternative for field offices and decided to find three locations in southern Michigan for additional test plots in the spring of 2008. The plots will be evaluated for effectiveness in preventing gully formation, sediment deposition, and plant survival. Survey measurements will be taken at various times throughout the project to determine sediment deposition at and behind the vegetation rows. The Rose Lake PMC has propagated new sod strips of *Miscanthus sinensis* in the greenhouse and will have them ready for the committee to plant in May 2008.



Miscanthus sod strips growing in PMC greenhouse



Field application of vegetative barrier technology at Kellogg Biological Station near Kalamazoo, MI

#### New Ash Tree Seed Identification Publications

In response to the threat to the Nation's ash trees by the Emerald Ash Borer, the Rose Lake PMC entered into an agreement with the USDA Agricultural Research Service to collect ash seeds from across the country and store them at the ARS National Genetic Resource Preservation facility in Ft. Collins, Colorado. As part of the educational effort of this project the PMC has produced several publications on identifying ash trees and doing seed collections.

Michigan State University forest entomologist Dr. Debora McCullough has been researching the Emerald Ash Borer for several years. Dr. McCullough has also worked with the PMC to provide educational materials on this effort. The newest products from the collaborative effort are posters and flyers that encourage ash seed collection and provide high quality photographs of seeds from various ash species. The flyers and posters will be distributed to NRCS and Conservation District field offices in the next few weeks. They will also be available on www.ashseed.org.

#### **Collections Still 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 virginious L





Coralberry Symphoricarpos orbiculaturs Moench

American Wild Plum Prunus americana Marsh.



#### Grasses, Sedges, and Forbs Propagated for Ft. Custer Military Training Center

Fort Custer Training Center (FCTC) in Southwest Michigan is 7500 acres of military tactical training area used by the Michigan National Guard and other branches of the armed forces. While FCTC is an important training facility, it is also home to a wide variety of natural resources, e.g., wildlife, forests, wetlands, surface water, and various rare plant and animal species. Moreover, historic and cultural resources are located on the property. The facility is federally-owned and operated by the Michigan Department of Military and Veterans Affairs.

The Fort Custer Military Training Center has a large number of plant species whose genetics are believed to be native to the Training Center. Approximately 120 species of grasses, sedges, and forbs were located and identified by staff of Native Connections Nursery. Seventy seven of those species were collected by Native Connections and provided to the Rose Lake PMC for propagation and re-establishment at the Training Center.

Seeds were stratified, as necessary, and planted in greenhouse containers in the winter of 2008. Plants from those seeds will be transplanted into seed production plots on the Fort in 2008 and will provide seed for revegetation efforts around the Military Training Center.



Elaine Gerona, Administrative Assistant, transplanting seedlings to cone containers



Transplanted seedlings to cone containers



Greenhouse production of grasses, sedges & forbs for Ft. Custer Military Training Center project





Rose Lake Plant Materials Center 7472 Stoll Road East Lansing, MI 48823 Phone: 517-641-6300 Fax: 517-641-4421 Email: PMC Manager john.leif@mi.usda.gov PM Specialist dave.burgdorf@mi.usda.gov

NRCS Natural Resources

"The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer."