Year 2010
Progress Report of Activities

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Jimmy Carter Plant Materials Center

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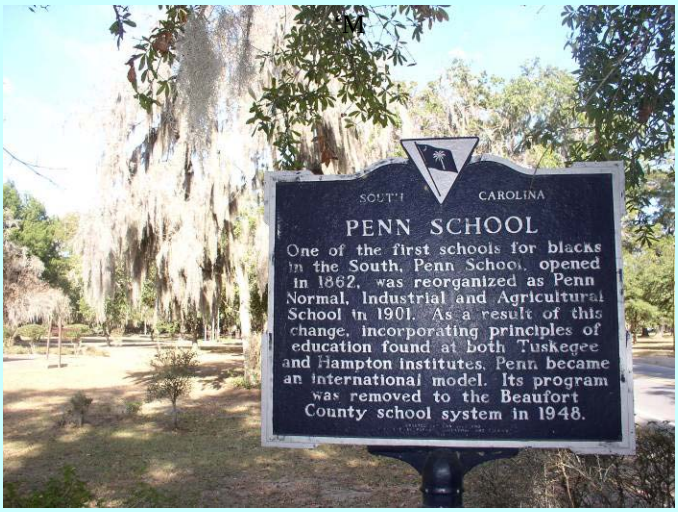
A brief summary of year 2010 accomplishments follows. For a complete account of all activities request the 2010 Technical Report of Activities at the above address.

A NEW SWITCHGRASS -PENN CENTER GERMPLASM SWITCHGRASS RELEASED IN 2010

In the summer of 2010 the Jimmy Carter Plant Materials Center released a new switchgrass for the coastal region called Penn Center Germplasm Switchgrass. This release commemorates the South Carolina coastal community of Penn Center. Penn Center is a significant national historic site recognizing civil rights milestones and efforts of Dr. Martin Luther King Jr. Penn Center Germplasm Switchgrass is a native perennial warm-season bunchgrass from Beaufort Co. South Carolina that grows from short rhizomes. Stems range in size from 2 to 5 mm in diameter. Green to yellowish green leaves can reach 35 cm long and 15 mm wide. Plant height can reach 1 to 2 meters tall including inflorescence panicle. Mature seedheads are broad and open. They range in color from purple to light tan. In September seed about 1 to 2 mm long are produced. Penn Center naturally occurs along the transition between high salt marsh and maritime forests of coastal South Carolina. It can be used to control erosion in disturbed residential and commercial areas along the coast of South Carolina and Georgia especially in high salt marsh/maritime forest transitions. Rootstocks of Penn Center can be planted to 3 foot rows and 2 to 3 feet within rows for moderate coverage. Suggested planting dates range from late February to April. Most planting sites will consist of sandy or sandy loam topsoils. Penn Center should tolerate spring high tides. It can grow into forest cover but excessive shade will reduce stand and vigor.



Penn Center South Carolina

David Findley NRCS –Beaufort Co. S.C.

Penn Center Switchgrass- Production Field

NEW PUBLICATION FOR WETLAND PLANT IDENTIFICATION

The Jimmy Carter PMC in cooperation with Georgia NRCS resource soil scientists(Jim Lathem and Sherry Carlson) produced a new cd to assist field offices identify wetland plants for wetland delineation determinations. The publication is called **Georgia Wetland Plants Version 3.0**. It was sent to Georgia field offices and to state offices in surrounding states. The publication shows ferns, herbaceous vegetation, sedges, woody shrubs and trees. Pictures of these wetland plants are identified with location maps to aid the field offices in accurately identifying various wetland plants growing in different regions of Georgia. A wetland delineation course designed to recertify NRCS employees is scheduled for summer 2011.

Clethra alnifolia

Marshallia graminifolia

Polygala lutea

JIMMY CARTER PMC FIELD PLANTING

A new field planting conducted by the PMC was planted to a silvopasture in Bleckley Co Georgia in 2010. The purpose of the field planting is to evaluate native warm season grasses in actual field conditions. Field plantings help determine the adaptability of released plant material from the plant material program and also evaluate the adaptability of other commercially available material. Malcome Kirkland of the PMC helped calibrate a fertilizer spreader to properly distribute native grass seed over a tilled area of loblolly pine

owned and operated by Earl Barrs of Bleckley Co. The fertilizer spreader contained pelletized lime to help carry the fluffy grass seed away from the spreader. Native grasses were planted at a rate of 10 pounds of pure live seed per acre. The planting was followed by a cultipacker to firm the seedbed and improve chances of adequate seed germination. This planting technique can be used when native warm season grass drills are not available. Danny Bennett of the Bleckley Co NRCS assisted with the planting of 'Americus' indiangrass (Released from the Jimmy Carter PMC) and an ecotype from Kentucky. These indiangrasses will be compared for their ability to produce forage in a silvopasture of loblolly pine.

Malcome Kirkland of PMC Helps Calibrate Machinery to Plant Native Warm Season Grasses

Silvopasture Area after Native Grass Planting

GRAZING SYSTEMS FIELD DAY AT THE PMC

A Grazing Systems Field Day was held at the Jimmy Carter PMC April 28, 2010. The field day was hosted by the NRCS, Two-Rivers RC&D, and the Lower Chattahoochee River Soil and Water Conservation District. Over 55 livestock producers and NRCS employees attended the grazing field day which demonstrated grazing native warm season grasses, cool season forages, silvopastures, and stockpiled forages. Dr. Dennis Chessman, grazing specialist NRCS Georgia, and Dr. Mary Goodman of Auburn University discussed the advantages of rotational grazing and techniques to establish a rotational system. Dr. Curt Lacey of the University Georgia discussed the economics of haying and stockpiling. George Owens, Florida livestock producer, explained proper grazing procedures under a silvopasture system. Lee Davis, livestock producer in Dooly Co Georgia, and Malcome Kirkland , assistant manager of Jimmy Carter PMC, discussed critical management involved in grazing native warm season grasses.

Dr. Dennis Chessman(Georgia NRCS) and Dr. Mary Goodman(Auburn University) Discuss Grazing Techniques

ECOLOGICAL SITE DESCRIPTIONS IN GEORGIA

Ecological Site Descriptions (ESD) were conducted in south Georgia in 2010.The PMC in cooperation with NRCS grazing specialists, foresters, soil scientists, and local NRCS employees helped collect data on plant identification and plant production along study transects. These transects were established in longleaf pine stands in south Georgia. This study was connected to soil quality determinations on longleaf pine and pasture sites. The ESD and soil quality determinations will provide information on plant identification, plant production and soils for improved management of upland longleaf pine and pasture sites.

Philip Brown and Al Hubbard Conducting Transect

Native Lopsided Indiangrass in ESD Study Area

WHO WE ARE

The Jimmy Carter Plant Materials Center (PMC) is a branch of the United States Department of Agriculture, Natural Resources Conservation Service. It is one of 27 plant materials centers located throughout the United States. The Center is located on the Northwest corner of Americus in Southwestern Georgia and is approximately 40 miles North of Albany. Areas served include Georgia, Alabama, South Carolina, North Carolina and parts of Tennessee and Florida.

WHAT WE DO

It is our mission to use plant materials and state-of-the-art plant science technology to solve natural resource problems and meet the objectives of environmental programs. Our program emphasizes using native plants. We develop, test and release superior adapted plants to commercial growers along with production and management technology. Our mission addresses three major objectives:

1. Native Grasses for grazing lands that support sustainable agriculture and wildlife habitat.
2. Native plants for water quality (riparian forests, conservation buffers, filter strips, constructed wetlands, and streambanks)

3. Conservation tillage (green manure, organic gardening, carbon sequestration, and winter cover)