Year 2008 ORCS Conservation Progress Report of Activities

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Jimmy Carter Plant Materials Center

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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-ofthe-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:

- Native Grasses for grazing lands that support sustainable agriculture and wildlife habitat.
- Native plants for water quality (riparian forests, conservation buffers, filter strips, constructed wetlands, and streambanks)
- Conservation tillage (green manure, organic gardening, carbon sequestration, and winter cover)

A brief summary of year 2008 accomplishments follows. For a complete account of all activities,

Request the 2008 Technical Report of Activities at the above address.

JIMMY CARTER PLANT MATERIALS CENTER HOSTS NATIVE WARM SEASON GRASSES CP-36 PROGRAM FIELD DAY

On March 4, 2008 the Jimmy Carter PMC hosted a field day to provide training on the use of native warm season grasses in the CP-36 program. 115 farmers, land managers and land owners participated in the all day event. The CP-36 program requires planting of longleaf pines as well as a cover of native warm season grasses for wildlife utilization. Representatives of the NRCS, FSA, and Georgia Soil and Water Conservation Commission discussed the program with emphasis on cost-share and planting requirements for establishing a mixture of native warm season grasses. Agricultural chemical company representatives explained the use of recommended herbicides to properly establish and maintain stands of native warm season grasses within a longleaf pine planting. Native seed growers discussed the types of native warm season grasses available on the market. They also discussed seed pricing and seed quality. Jimmy Carter PMC personnel explained techniques to establish and grow native grasses in the Southeastern U.S. Techniques included the use of fertilizer spreaders and cultipackers to plant native seed as well as calibrating native grass seed drills especially designed to handle light fluffy native seeds. Vendors specializing in planting native warm season grasses and forbs for wildlife spoke about

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their experiences in Georgia, Alabama, and Florida. In addition to formal presentations, exhibits, planting supplies, and equipment were displayed. This included several types of planters and many native seed species in various stages of the cleaning process.

CONTINUOUS GRAZING SYSTEM IMPLEMENTED at JIMMY CARTER PMC



Jimmy Carter PMC Conference Room

The Jimmy Carter PMC with guidance from the Georgia NRCS grazing specialist began a 12 month grazing program to demonstrate techniques to effectively extend grazing of cattle throughout the year in South Georgia. With the help of grazing lands initiative support several new cattle fences were constructed on the PMC in 2008. Pastures will be rotationally grazed to support proper nutrition of the cattle and maintain grass stands. The following pasture types will be utilized in the study: 'Pete' eastern gamagrass, 'Americus' indiangrass, mixed native grass (consisting of 'Americus' indiangrass 'Earl' big bluestem, 'Cimmaron' little bluestem, 'Alamo'and 'Cave-in-Rock' switchgrass), silvopasture of 'Pensacola' bahiagrass, 'Coastal' bermudagrass and longleaf pine, 'Kentucky 31' tall fescue, 'Pensacola' bahiagrass and common bermudagrass, and fall overseeding of rye and ryegrass to the bahiagrass and bermudagrass fields. Approximately 25 to 30 head of cows and calves from local landowners will provide livestock for the study. Cattle weights and fecal analysis will provide information on nutrition and health of the herd.



Planting Equipment on Display



Cattle Grazing on Fall Overseeded Rye



Mixed Native Grass Pasture After First Grazing Cycle

NEW COOPERATIVE BOBWHITE QUAIL RESTORATION PROJECT AT THE JIMMY CARTER PMC

In 2008 the Jimmy Carter PMC in cooperation with Alabama and Georgia NRCS wildlife biologists, Georgia DNR biologists, Georgia NRCS grazing land specialists, herbicide representatives and the Wildlife Management Institute established 10 acres of former Bahia/Bermuda pasture to upland bobwhite quail habitat. Initially the pasture was sprayed with imazapire and other herbicides to control weeds and invasive grasses. After establishment imazapic was sprayed to control invasive bahia and bermudagrass. In spring 2008 the restoration area was planted to native grass vegetation of big bluestem, little bluestem, indiangrass, and switchgrass to provide nesting, brood cover and escape cover for bobwhite quail and other upland birds. Native forbs of partridge pea, Illinois bundleflower, Florida beggarweed, black-eyed susan and ragweed were also planted as a food source for upland birds. Two planting techniques were employed. A cyclone type fertilizer spreader with various carriers was used to plant half of the restoration site. A native grass drill was used to plant the other half of the site. In November 2008 wildlife biologists rated the site for nesting, brood cover, and escape cover. The native grass seed drill

technique ranged from very bad to fair for nesting and very bad to good for brood cover. The fertilizer spreader technique ranged from poor to good for nesting and poor to excellent for brood cover. Vegetation is not large enough to rate the escape cover yet. Biologists expect the ratings to change over the next years and plan to continue monitoring the restoration process.



Cyclone Fertilizer Spreader with Seed Carrier Followed by Cultipacker



Native Grass Seed Drill



Stand of Native Grass and Black- Eyed Susan



Partridge Pea Stand in Late Summer

NEW WETLAND PLANTS RELEASED IN 2008

In 2008 the Jimmy Carter PMC released 'Sumter' Germplasm soft rush and 'Muckalee' Germplasm woolgrass. Both of these new releases occur naturally in wetland environments. Data from plant material specialists indicate these releases will work well in small constructed wetlands to treat waste water. The PMC has contacted nurseries to grow and provide this material for the public.



Sumter Germplasm Soft Rush



Muckalee Germplasm Woolgrass