

Year 2009



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-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)

A brief summary of year 2009 accomplishments follows. For a complete account of all activities,

Request the 2009 Technical Report of Activities at the above address.

A NEW CRIMSON CLOVER - 'AU SUNUP' RELEASED IN 2009

In the summer of 2009 the Jimmy Carter Plant Materials Center, Auburn University, and the Alabama Crop Improvement Association released a new early developing crimson clover called 'AU Sunup'. It is a naturalized cool-season annual legume. The new release was originally comprised of eleven seed collections from Florida, Alabama, Georgia, and South Carolina. Plant breeding techniques were applied to this germplasm with the primary selection pressure of early bloom and development characteristics. It was tested for dry matter production and early bloom date at 5 different sites in North and South Alabama and at the Jimmy Carter PMC in Americus, Georgia. This selection process produced a new crimson clover that blooms 5 to 21 days earlier than 'AU Robin' (an early blooming crimson clover line in commercial production). 'AU Sunup' is well adapted to fertile upland soils of Alabama and Georgia. This would include MLRAs: 128-Southern Appalachian Ridges and Valleys, 133A-Southern Coastal Plain, 135 A- Alabama and Mississippi Blackland Prairie, and 136-Southern Piedmont. This cultivar should be adapted to zones 7b, 8a, and 8b of the USDA Plant Hardiness Zones. It is adapted to the same sites as 'Dixie' and 'AU Robin' crimson clovers. Uses of 'AU Sunup' include green manure crop, habitat for insect

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pollinators, cover crop for conservation tillage, organic farming, and as a forage to improve grazing quality.

Alabama Crop Improvement Association is increasing the supply of seed for commercial distribution and sale.



Production Field of AU Sunup

NEW PUBLICATION DESCRIBES NATIVE PLANTS FOR POLLINATORS

The Jimmy Carter PMC produced a new publication called:

Guide to Pollinator Plants of South Georgia and Adjacent Areas.

The publication encourages maintaining and protecting pollinator plant communities and native pollinator plants. Insect pollination is crucial in the production of numerous important crops in the United States including apples, blueberries, cherries, pears, plums, peaches, squash, tomatoes, clovers and watermelons. However, in recent years

biologists have noticed a decline in many of the pollinator insects especially among honey bees and bumble bees. A national effort has begun to conserve and enhance pollinator populations. This document was produced to assist land managers identify and protect plant species especially native plants known to be visited or utilized for nectar by pollinator insects. In addition to pictures and plant identification descriptions several plant pollinator habitats are discussed. The pictures and descriptions of pollinator vegetation depict plants of the South Georgia coastal plain but could be utilized on a broader scale. Field identification of pollinator flora can be part of a land management program to improve or protect habitat for pollinators and pollinator plants.



**Trumpetweed or Joe Pye Weed with
Swallowtail Butterfly**

WEED IDENTIFICATION TRAINING FOR ALABAMA NRCS

In May 2009 Eddie Jolley (NRCS Agronomist Auburn Alabama) and Jimmy Carter PMC staff presented field training in weed identification to Alabama NRCS personnel. The training was presented across Alabama from Cullman, Clanton and Luverne. Emphasis was placed on common weeds in row crops, pastures, open areas and woods borders. Field botany principles were discussed including proper ways to collect, preserve and identify weeds in Alabama. During the course of the training students were given specific plant characteristics to help determine plant recognition in the field. This involved leaf, bloom, fruit and stems properties depending on the the plant of

interest. Plant habit, structure and size were also discussed. Participants were told of reference material and sources of consultation for weed identification. Approximately 150 NRCS personnel from around the state attended the training sessions.



Cutleaf Primrose



Ragweed

FIELD DAYS AT THE PMC

The Jimmy Carter PMC hosted 4 field days in FY2009. In the Fall a **Native Warm Season Grass Field Day** was held. Ben Moseley of the Georgia Soil and Water Conservation Commission, Nick Brown of Georgia DNR, Richard Barrett of NRCS, John Seymore of Roundstone Seed Co., and Jimmy Carter PMC staff gave presentations. Topics included establishing and maintaining native warm season grasses, benefits of native vegetation, NRCS and FSA programs and native warm season grass identification. The first session was attended by 30

NRCS personnel. The second session was attended by 59 landowners and land managers.



Demonstration of planting native Grasses

In February 2009 the Georgia Forestry Commission and the PMC staff conducted a **Prescribed Burn Workshop and Demonstration**. Topics discussed were as follows: native grass response to fire, best management practices, fire weather, fire fuels, firing techniques, smoke management, fire safety, safety equipment, and firing devices. Live burn demonstrations followed lecture presentations. 20 people attended the workshop.



Firing techniques demonstrated

On June 2, 2009 the NRCS, Two-Rivers RC&D, Lower Chattahoochee River S&WCD, and Jimmy Carter PMC hosted a **Coastal Plain Grazing Systems Field Day**. Phillip Brown, Al Hubbard, and Malcome Kirkland of the NRCS discussed and demonstrated several grazing system techniques.

George Owens explained his experiences with silvopasture in Florida. Dr Mary Goodman of Auburn University covered some of her research in silvopasture and soil structure. Dr. Dennis Hancock of University of Georgia spoke on minimizing hay production and maximizing profits. John Seymore demonstrated techniques to successfully plant native grass for forage. Richard Barrett of the NRCS discussed grazing systems regarding NRCS programs.



Cattle Grazing Pearl Millet at PMC

ECOLOGICAL SITE DESCRIPTIONS IN SOUTH CAROLINA AND GEORGIA

In 2008 and 2009 NRCS specialists from Greensboro North Carolina Technical Center, Athens, Georgia State Office and Jimmy Carter PMC have conducted data collection on longleaf pine communities in outer coastal plain landscapes of South Carolina and Georgia. Data consists of tree growth, tree density and population in the community. Understory plant species are identified and recorded for frequency, composition, dominance and production. Also soil series is identified and soil properties recorded for each data collection site. This data will be incorporated into an ecological site index for longleaf pine communities of the Southeast.



Data Collection in South Carolina



Site in Ft Stewart Georgia