

BOONEVILLE PLANT PRESS

Newsletter from the Booneville Plant Materials Center
 Booneville, Arkansas
 April 2011

Pine Study in Booneville, Arkansas

Agroforestry Practice: Alley Cropping with Short-Leaf Pine and Switchgrass

Agroforestry combines agriculture and forestry technologies to create diverse, profitable and sustainable land-use systems. One Agroforestry practice that may appeal to landowners is alley cropping. Alley cropping is defined as the planting of trees or shrubs in two or more sets of single or multiple rows with agronomic, horticultural or forage crops cultivated in the alleys between the rows of weedy plants.



Short-leaf pine planted in single and multiple tree rows with Alamo switchgrass planted in the alleys

An alley cropping system being investigated at the Booneville, Ark., Plant Materials Center (PMC), in cooperation with the USDA-ARS, Dale Bumpers Small Farm Research Center in Booneville and the National Agroforestry Center in Lincoln, Neb., involves planting short-leaf pine (*Pinus echinata*) in different tree designs; rectangular (14' X 14'), double row (8' X 8' X 40') and single row (8' X 24'), with Alamo switchgrass planted between the rows as a bio-fuel crop. One of the questions needing answered was whether or not switchgrass planted in the spring following tree planting would negatively affect early growth and development of short-leaf pine on this site in western Arkansas.

FY 2010 Findings

Four years after planting short-leaf pine and switchgrass on this site in 2006, there has been no negative effect of the switchgrass on the growth and development of the pine trees (Table 1). These findings suggest the landowner could plant trees in the winter and switchgrass the following spring and not be concerned that the switchgrass will hinder the growth and development of short-leaf pine on this type of site. This would enable landowners to transition more quickly into a Silvopasture or biofuel production system without a one- to two-year delay for tree establishment before planting the switchgrass in the alleys.

Table 1. Height and diameter of short leaf pine grown with and without Alamo switchgrass between alleys, USDA-NRCS, Booneville, Arkansas 2010.

Treatment	Height (feet)	Diameter (inches)
Switchgrass	8.1	2.5
Control (no Switchgrass)	8.0	2.5

20th Annual FFA Field Day Held in Booneville

The 20th annual Future Farmers of America (FFA) field day was held at the South Logan County Fairgrounds and the Dale Bumpers Small Farms Research Center March 10, 2011. Although not a record breaker, 726 students congregated at the fairgrounds ready to apply their skills.

Arkansas high school Agriculture teachers across the state work with teams of students honing their agricultural judging skills. This year students competed in seven categories: Forestry, Poultry, Land, Crops, Livestock, Floricultural and Dairy products.

This event helps prepare students for the upcoming district, state and possibly national judging competitions.

If you would like to know more about the annual FFA Field Day, you may call the Booneville Plant Materials Center at 479-675-5182 or the Logan county Field Service Center at 479-963-2612.



Students applying their skills in judging soil in a large open field

Fort Smith Lawn and Garden Show

This is the 4th year that the Booneville Plant Materials Center (PMC) has participated in the Fort Smith, Ark., Lawn and Garden Show. The event was held March 25 - 27 at the Fort Smith Convention Center. It is hosted by the Arkansas River Valley Master Gardeners. During the three day show, special seminars and programs on a variety of plants, flowers, landscaping, etc. were presented by numerous vendors. The Booneville Plant Materials Center, Dale Bumpers Small Farms Research Center (Agricultural Research Service), Arkansas Agricultural Extension Service, National Parks Service, U.S Forest Service, and the Arkansas Forestry Commission were a few of the government agencies represented. The PMC shared a booth with the Agricultural Research Service. The Plant Material Center staff provided information to the public about establishing and managing native warm season grasses for grazing, hay production, and/or bio-fuel feedstock production.



Exhibit tables set up with information on Native Grasses

Information About Us:

The Dale Bumpers Small Farm Research Center is home to: USDA, Natural Resources Conservation Service/Booneville Plant Materials Center and the USDA, Agricultural Research Service. We are located at: 6883 South State Hwy 23, Booneville, Arkansas 72927. You may contact us by calling (479) 675-5182, Fax: (479) 675-5466. Our hours are from 8:00 A.M. to 4:30 P.M., Monday thru Friday. If you would like a tour of the Center please call to schedule an appointment. Our staff members are: Randy King, Manager, Debbie Orick, Office Assistant, Eddie Pratt and Dale Goff, Biological Science Technicians. The primary service area of the Center encompasses 53 million acres of land in parts of Arkansas, Oklahoma and Missouri.

Our Mission Statement:

The mission of the Natural Resources Conservation Service, Plant Materials (PM) Programs is to develop, test, and transfer effective state-of-the-art plant science technology to meet customer and resource needs. NRCS PMC activities are consistent with the objectives of the current United States Department of Agriculture (USDA) and NRCS Strategic Plan namely to provide timely and effective vegetative solutions for identified resource needs.

USDA is an equal opportunity provider and employer.