United States Department of Agriculture
Natural Resources Conservation Service

BOONEVILLE PLANT PRESS

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

Predicting Switchgrass Yields

Steve Brady and Randy King measuring visual obstruction of switchgrass growth with Robel Pole

The Booneville Plant Materials Center staff along with Joel Douglas, Plant Materials Specialist, and Steve Brady, Biologist Team Leader, both from the Central National Technology Support Center in Fort Worth, Texas, and Dr. John Snider, Agriculture Research Service in Booneville are working together to develop efficient and accurate methods for predicting switchgrass yield. They are working on a new method which will help them to take samples without physically sampling quadrates to determine yield. Non-destructive sampling methods can be used to quickly assess biomass yields at the field-scale with limited labor requirements. Plant measurements were collected from plots of upland and lowland switchgrass selections at the Booneville Plant Materials Center. Measurements included, plant height (absolute and to the highest leaf), stem density; stem size, and visual obstruction using the Robel pole method. These plant measurements will be used to model the relationship between the plant components measured and dry matter yield. Preliminary analyses of the data show the best correlation for predicting yield was obtained with stem diameter and plant height.

Summer Intern Returns to the PMC

The Natural Resources Conservation Service (NRCS) offers career positions to students that are currently enrolled in college. The student must be pursuing a field of study that relates to the career fields offered by the NRCS along with other requirements. Through the Arkansas NRCS Summer Internship Program, Julie Osborne was hired in May 2010. We are very happy to have Julie back at the Plant Materials Center (PMC) for her second summer. Julie started work at the PMC on June 6th and will return to the University of Arkansas in Fayetteville, in mid-August, where she pursues a degree in Environmental, Soil and Water Science.

Summer Intern, Julie Osborne and PMC Manager, Randy King measure height of native grasses

Julie's duties include assisting the PMC staff with data collection and data entry, she also dries and processes forage samples, weeds plots, mows the lawn, etc… Julie says what she has learned at the PMC has helped her in her classes at the U of A. She hopes to continue working with the USDA Natural Resources Conservation Service after graduation from college in May 2012. We wish her the best.

2011 Field Office Employee Training

The Booneville Plant Material Center (PMC) staff conducted a two-day training workshop for 32 Arkansas and Oklahoma Natural Resources Conservation Service Field Service Center and Conservation District employees.

Eddie Pratt, Biological Science Technician, demonstrating how to perform herbicide calibrations

Topics of the workshop included: Seedbed Preparation by Dale Goff, Biological Science Technician; Herbicide sprayer calibration, safety, and operation by Eddie Pratt, Biological Science Technician. Pratt also explained the importance of growth curve data for predicting forage quality and quantity at any given date during the growing season of native warm season grasses; Julie Osborne, PMC Summer Intern, taught employees "How to Calculate Pure Live Seed (PLS)"; Randy King, PMC Manager, educated attendees on "Establishment and Management of Native Warm-Season Grasses for Forage"; Debbie Orick, Office Assistant, reviewed several websites that are very beneficial to the NRCS field staffs such as the Plants Database; the National Plant Materials Program; and the Booneville PMC websites. Ralph Harris, Grazing Land Specialist, from Hope Arkansas explained the importance of cell grazing and electrical fencing. Ralph Meeker, Wildlife Biologist (private lands) with the Arkansas and Fish Commission explained the establishment and management of native warm season grasses for wildlife enhancement.

The staff at the Booneville Plant Materials Center conducts this in-service training annually. NRCS and Conservation district employees are invited to expand their knowledge of plant materials development and use. Any suggestions for training topics in the future are welcome.

About Us:

Booneville PMC Staff: Back Row, Left to Right: Debbie Orick, Randy King and Julie Osborne. Bottom Row, Left to Right, Eddie Pratt and Dale Goff

The Dale Bumpers Small Farm Research Center is home to: The USDA, Natural Resources Conservation Services-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 at (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 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 stat-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.