

# 2011 Progress Report of Activities



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Appalachian Plant Materials Center

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## 2011 Summary of Projects

Many of these projects involve one or more species of native plants and have helped to diversify our partnerships with other federal and state agencies and private conservation groups. A brief description of several projects follows.

### USFS Mower Tract Ecological Restoration Cooperative Study

Revegetation of portions of the Mower Tract with indigenous species of trees and shrubs continued in 2011. The Mower Tract is a large land area within the Monongahela National Forest at roughly 4,000 feet in elevation. The objective of the project is to restore native flora on previously strip mined benches that are currently dominated by a thick, non-native sod layer. This restoration work will greatly benefit high-interest species including the cheat mountain salamander, northern flying squirrel, snowshoe hare, white-tailed deer, black bear, golden eagles, woodcock, ruffed grouse, saw whet owl, and a number of pollinating animals by providing a variety of food sources and niches. Additionally, reintroduction of bigtooth aspen will help further the goals of programs and organizations for priority game species, such as the

Woodcock Management Initiative and Ruffed Grouse Society.

In 2011, the Appalachian PMC delivered a total of approximately 8000 containerized native plants comprising about 20 native species to the USFS in Bartow, WV. The species delivered included: *Populus grandidentata*, big tooth aspen; *Populus tremuloides*, quaking aspen; *Amelanchier laevis*, Allegheny serviceberry; *Viburnum cassinoides*, wild raisin; *Sambucus racemosa*, red elderberry; *Veronia noveboracensis*, New York ironweed; and *Sisyrinchium angustifolium*, blue-eyed grass. Plant Guides and Fact Sheets and Propagation Protocols are being developed for several of these species.

### Cover Crop Evaluation for Transition to Organic Crop Production Project

The NRCS in West Virginia assists farmers to reduce erosion, improve nutrient management, protect soil quality, and encourages the use of integrated pest management on cropland. NRCS has committed technical and financial assistance for vegetable producers to meet these goals through development of voluntary conservation plans and accelerated application using Farm Bill programs. A critical element

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of these plans is to insure correct timing and accepted methods of cover crops to achieve the land nutrient balance, minimize the loss of nutrients to ground or surface water, improve irrigation water management, and to improve soil quality. As a research and teaching institute, the West Virginia University Cooperative Extension Service (WVU CES) has a long term commitment with NRCS, Conservation Districts and farmers to bring research and technology to the agriculture community.



*Cover crop plots just before rolling and crimping*  
During 2011, the Appalachian PMC, in conjunction with the West Virginia NRCS and Cooperative Extension Service, continued an evaluation project for various winter cover crops on cropland. A total of 160 plots, representing 4 replicates of ten cover crop seed mixes and 4 separate planting dates were established in the fall of 2010. These plots were evaluated for ground cover efficacy and biomass production in the spring of 2011, rolled with a Rodale Institute style cover crop roller-crimper and planted to no-till *Zea mays*, corn. Due to extreme variation in the corn population between treatments and replications in 2011, statistically valid corn yields could not be determined. The extreme variability in population has been attributed to predation by avian species, primarily crows, at or before initial emergence of

the corn seedlings. This trial will be repeated in 2012 with four replications of five treatments instead of 10 treatments.



*Rolling and Crimping Cover Crop Plots at PMC*

The final products of this project will be seasonal field trials of NRCS released cultivars and commercially available cover crops, publication of technical reports and recommendations for cover crops used in vegetable production, and seasonal in-field training of NRCS and WVU CES staff based on results of the demonstrations.

### **Land and Wildlife Expo**

The Gaylord Opryland Resort in Nashville, Tennessee hosted the first Land and Wildlife Expo in August, 2011. This Expo provided an excellent opportunity to reach thousands of landowners with conservation and land management practices, and the NRCS was one of several featured exhibitors. The Plant Materials Program supplied a diversity of native conservation plants for the indoor and outdoor displays. Approximately 3200 of the plants were supplied by the Appalachian PMC, and included species such as: big and little bluestem, switchgrass, Indiangrass, spiked blazing star, and Eastern gamagrass. This first ever Expo drew a crowd of more than 20,000 individuals.

## **Presentations, Training and Publications**

The Appalachian PMC was once again the host location for the Southern and Greenbrier Soil Conservation District sponsored Regional Land Judging competition. Competitors are normally Future Farmer of America and Canon Envirothon students from middle and high schools from the seven counties comprising the two soil conservation districts. Students and coaches are given a brief tour of the center after they have completed their judging. The Plant Materials Center looks forward to continuing as host of this competition.

## **Who We Are**

The Appalachian Plant Materials Center, located in Alderson, West Virginia, serves 10 states in the Appalachian Region from Pennsylvania to Georgia. The Center is operated by the USDA-NRCS in cooperation with the USDA-Agriculture Research Service, U.S. Forest Service and the Agriculture Experiment Stations of West Virginia University, Virginia Polytechnic Institute and State University and the University of Kentucky. Alderson is located in the heart of Appalachia, and the Center is situated on County Route 3/29, also known as Old Prison Farm Road, approximately 20 miles Southeast of Lewisburg, West Virginia. This center is new with regard to land resource and physical plant, but is the product of the transfer of programs and equipment from Quicksand, Kentucky to Alderson, West Virginia. The transfer of center functions began in 1996 and was completed in 2000.

## **What We Do**

The Plant Materials Center serves Appalachia by evaluating plants for their ability to solve specific conservation problems related to climate, the rugged topography, soil limitations, various land uses, fish and wildlife needs and desires of the landowners. The center provides a place for conducting systematic observations and evaluations of plants needed to protect our natural resources. New techniques are developed for the propagation, establishment, management and use for new or improved species of grasses, legumes, shrubs and trees.

The Center's program emphasizes improving forage production on hillside pastures, address problems associated with concentrated livestock, reclamation of mined lands, streambank stabilization, agro-forestry, wildlife habitat improvement, and utilization of economic and culturally valuable plants. The center assembles plants from the entire service area with similar soils and climate, evaluates the plants, develops management techniques, and provides seed and plants for planting to test performance throughout the area. Most of the plant materials produced at the center are used in West Virginia, Kentucky, Tennessee, Pennsylvania, Ohio, Virginia, and North Carolina.