

# EVALUATION OF THE USDA'S FARM BILL CONSERVATION PRACTICES FOR WILDLIFE

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## INTRODUCTION

Conservation practices under the USDA Farm Bill program have tremendous potential to improve wildlife habitat, especially across the South, since the majority of the region is privately owned by farmers and landowners. However, this potential can only be reached if guidelines for establishing and maintaining conservation practices provide the greatest benefit for wildlife. These practices, and their impacts on wildlife habitat, should be understood by NRCS personnel and natural resource professionals so that the most appropriate recommendations can be made to the landowners. In addition, landowners must be willing to adopt and implement these practices on their lands.

This project evaluates current conservation practices for wildlife under the USDA Farm Bill and makes recommendations for improving these practices for wildlife on Clemson University's Pee Dee Research and Education Center outside of Florence, SC. Eight Wildlife Habitat Incentive (WHIP) Program are being evaluated, but are also found in several other USDA Farm Bill programs. Each practice (treatment) will be evaluated based upon vegetation response (structure and diversity) over time and response of wildlife (herpetofauna, avifauna, and small mammals). Factors that determine adoption of wildlife conservation practices by landowners will also be determined to encourage greater participation in Farm Bill programs for wildlife. An outreach component is a portion of this project, including workshops for NRCS personnel and landowners, and dissemination of results and recommendations through publications and web-based formats.

## OBJECTIVES

1. Demonstrate and evaluate eight cost-sharing farm and forest conservation practices under the USDA's Farm Bill Wildlife Habitat Incentives (WHIP) Program.

2. Make recommendations to USDA-NRCS on improving WHIP and other Farm Bill Conservation practices for wildlife.
3. Determine attitudes of landowners toward USDA Farm Bill cost-sharing programs for wildlife and factors that determine willingness to adopt these practices.

## **PROGRESS TO DATE**

Seven field borders were established (Spring 2004) following NRCS guidelines using a cyclone spreader to sow seeds. Two filter strips were established in the spring 2004 and plots were made similar to the field borders as noted above. Several grasses (Switchgrass and Coastal panic grass) were incorporated into native warm-season grass (NWSG) mixtures. Three mixed stands of NWSG with legumes and one (1) pure stand—half with switchgrass and half with Eastern gamma grass were planted in the summer 2004. Two of the stands were mowed and burned in the winter of 2005 to control weed competition. In the early spring (2004), mast trees and bushes were planted in three (3) areas to create riparian buffer zones. Survival rates in these areas are about 65-70 percent after the first year. Four hedgerows were planted in the spring (2004). All contain mast trees and shrubs. A 60 – 70 percent survival rate has been maintained after the first year. Forest understory chipping and harvesting was done in the fall and winter (2003-2004). In young pine monocultures, every thirty-five feet (35) a five (5) foot strip was chipped in a linear fashion. In more mature woodlots, understory cutting was performed to open up the canopy. Presently there is a 80-90 basal area, however, bids are out to get the basal area down to 60. Openings were placed in two types of scenarios, burned and unburned. Six openings have been made (three per scenario). These openings were created by using the logging decks and then increasing the size according to NRCS guidelines. Although this prescribed burning is listed in the WHIP separately, we have incorporated this practice in several of our other areas. There are four woodlots that are burned with no other treatment. Two (2) woodlots that have openings and are burned.

## **PRESENTATIONS**

Knipp, L.A. and A.J. Savereno. NRCS-In House Training. Field Tour of WHIP research for NRCS employees in the Pee Dee Region. Florence, SC, September 2, 2004 (*oral presentation in field*).

Maxwell, A. Knipp, L.A., Savereno, A.J., Lewis, J., Cowell, K.W., and J. Bennett. WHIP project gets highlighted. Pee Dee Research and Education Center, Florence, SC. October 4, 2004 [http://www.sc.nrcs.usda.gov/wildlife\\_education\\_center.html](http://www.sc.nrcs.usda.gov/wildlife_education_center.html), <http://www.nrcs.usda.gov/news/thisweek/2005/030205/whipeede.html> (*oral presentation in field for photo shoot*).

Savereno, A.J., and G. Yarrow. Comparison of studies between Pee Dee and Nemours Foundation. October 12, 2004 (*oral presentation in field*).

Knipp, L.A. USDA's Farm Bill Wildlife Habitat Practices. RC & D Meeting. Greenville, SC. October 13, 2004 (*oral presentation*).

Knipp, L.A. and A.J. Savereno. Landscapes for Learning, Sixth Annual Betsy M. Campbell Gardening with Children and Youth Symposium. Field tour of WHIP research. Florence, SC. October 21-22, 2004 (*oral presentation in field*).

Savereno, A.J. Managing Native Vegetation for Wildlife, AgExpo, Columbia Metropolitan Convention Center, Columbia, SC, March 1, 2005 (*oral presentation*).

Knipp, L.A. Sustainable Land Management Demonstration and Research for Wildlife. Class presentation for Dr. Dave Guynn, Clemson University, Clemson, SC, March 21, 2005 (*oral presentation*).

Savereno, A.J. Wildlife Research Initiatives at the Pee Dee Research and Education Center, Florence Chapter of Society of American Foresters, Florence, SC, April 25, 2005 (*oral presentation*).

Knipp, L.A., Yarrow, G., and A.J. Savereno. Sustainable Land Management Demonstration & Research for Wildlife, 27<sup>th</sup> Annual Southern Conservation Tillage Systems Conference, Pee Dee Research and Education Center, Florence, SC., June 28, 2005 (*poster*).

Knipp, L.A. and A.J. Savereno. Integrating Wildlife Habitat Enhancement with Agricultural Practices, Field tour presentation at 27<sup>th</sup> Annual Southern Conservation Tillage Systems Conference, Pee Dee Research and Education Center, Florence, SC., June 29, 2005 (*oral presentation in field*).

Knipp, L.A., Yarrow, G., and A.J. Savereno. Field tour for selected guests. South Carolina Forestry Commission and NRCS personnel visit research site. Pee Dee Research and Education Center, Florence, SC. July 19, 2005 (*oral presentation in field*).

Knipp, L.A. Sustainable Land Management Demonstration and Research for Wildlife, South Carolina State Meeting for Wildlife Services, Hickory Knob State Park, McCormick, SC. August 8, 2005 (*oral presentation*).

Knipp, L.A., Yarrow, G., and A.J. Savereno. Sustainable Land Management Demonstration and Research for Wildlife, Southeast Quail Study Group Meeting, Gilbertsville, KY, August 15, 2005 (*poster*).

Knipp, L.A. Evaluation of USDA Farm Bill Wildlife Habitat Conservation Practices. Native Grasses Conference for Small Farmers, Jimmy Carter Plant Materials Center, Americus, GA. September 7, 2005 (*oral presentation*).

Savereno, A.J., Knipp, L.A., and G. Yarrow. Use of Native Warm Season Grasses in a Farm Bill Research and Demonstration Project. Native Grasses Conference for Small Farmers, Jimmy Carter Plant Materials Center, Americus, GA. September 7, 2005 (*poster*).

Knipp, L.A., and A.J. Savereno. Wildlife Habitat Incentive (WHIP) Program and CP-33 Field Day. Pee Dee Research and Education Center, Florence, SC. Oct. 2005 tentative (*oral presentation in field*).

Knipp, L.A., and A.J. Savereno. Field tour for selected guests. South Carolina Wildlife Federation visit research site. Pee Dee Research and Education Center, Florence, SC. November 12, 2005 (*oral presentation in field*).

## **PUBLICATIONS**

None to date.

## **PARTICIPATING AGENCIES AND LANDOWNERS**

Anthony J. Savereno, Wildlife Biologist, Pee Dee Research and Education Center  
Judy A. Barnes, Wildlife Biologist, South Carolina Department of Natural Resources.  
Judy has conducted Farm Bill workshops on the Pee Dee REC and highlighted this research.

Breck Carmichael, Wildlife Biologist and Federal Aid Coordinator, South Carolina Department of Natural Resources, Assisted in the design of the project.

Nicole Chadwick, Wildlife Biologist, South Carolina Department of Natural Resources.  
Aided in design of understory chipping for possible occurrence of red cockeyed woodpeckers for a neighboring candidate for Safe Harbor.

Billy Dukes, Wildlife Biologist and Project Leader for Small Game, South Carolina Department of Natural Resources. Aided in field tours for NRCS personnel.

Steve Moore, Forester, South Carolina Forestry Commission. Contracted to do all of our prescribed burns.

Sam Stokes, Jr., Regional Wildlife Biologist, South Carolina Department of Natural Resources. Assisted in design ideas on onset of project.

## **NRCS INVOLVEMENT**

John F. Bennett, Soil Conservation Specialist. John has aided in much of the technical support needed to carry out this project.

K. Wayne Cowell, District Conservationist. Wayne is the Darlington County representative that keeps our funding according to a "Special WHIP Project" guidelines so we can keep records of how much money would be spent by a landowner in similar fashion.

David N. Findley, Grassland/Forestry Specialist. David is Michael Hall's replacement and is a source for information dealing with maintaining the native warm season grass plantings.

Ed Hackett, Wildlife Biologist, Wildlife Habitat Management Institute. Assured the project was funded.

Michael Hall, Grassland Specialist. Michael gave advice on all grassland plantings on the project with seed planting rates. Also, he suggested a pure stand of both Eastern gamma grass and switchgrass to promote it to livestock producers. Both stands have been established for demonstration purposes only.

James Lewis, Jr., (*Retired*). Wildlife Biologist. Jim has given sound advice throughout the onset of this project and aided in assuring that we are fully funded. He also has brought the regional NRCS personnel to this project to show them on the ground what these practices entail.