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# An Extension Program Helping Private Landowners Develop Natural Resource Enterprises in Mississippi

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*Abstract:* The Natural Resources Enterprise (NRE) Program at Mississippi State University has developed a comprehensive statewide extension effort to assist landowners in developing and managing outdoor recreational businesses using sound business and habitat management strategies. According to recent research, fee access wildlife and fisheries recreational enterprises on private lands diversify landowner income, enhance participation in USDA cost-share programs that increase wildlife habitats on marginal agricultural lands, and promote land stewardship and ownership retention. With this program, information pertinent to the development and management of natural resource enterprises is disseminated through a combination of landowner workshops, websites, extension publications, manuals, DVD tutorials, radio programs, field days, and demonstration areas. Through collaboration with partner organizations and institutions, the NRE Program has expanded its scope both inside Mississippi and regionally. This innovative program is leading Mississippi and the Southeast in transferring research-based information in wildlife management and fee-based recreation development to landowners interested in applying these strategies on their lands.

*Key Words:* extension programs, fee-access enterprises, fisheries management, natural resource enterprises, nature tourism, outreach, wildlife-associated recreation, wildlife management

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## INTRODUCTION

Demand for quality outdoor recreation for hunting, fishing, wildlife and bird watching, horse trail riding, and farm and nature-based tourism is increasing. In 2001, U.S. citizens spent over \$108 billion on fish and wildlife recreation (USDI 2001). In Mississippi, outdoor enthusiasts spent \$571 million for recreational hunting and fishing and \$303 million in watching wildlife. According to recent research, fee access wildlife and fisheries recreational enterprises on private lands diversify landowner income, enhance participation in USDA cost-share programs that increase wildlife habitats on marginal agricultural lands, and promote land stewardship and ownership retention (Jones et al. 2005).

Based upon this knowledge, the Natural Resource Enterprises (NRE) Program was established within the Department of Wildlife and Fisheries and Cooperative Extension Service at Mississippi State University (MSU). The mission of the NRE Program is to educate non-industrial private landowners in the Southeast about sustainable natural resource enterprises and compatible habitat management practices on their properties. Agricultural and timber producers interested in initiating a successful recreational enterprise on their lands need timely information on business and marketing management, liability issues, wildlife habitat management, and integration with existing farming and timber production. Thus, the NRE Program has developed and implemented educational workshops, a quarterly newsletter, a Web site, training materials, and demonstration areas in Mississippi that provide information on sustainable enterprise development on the farm to landowners, agency and extension staffs, and rural community leaders.

## OVERVIEW OF EXTENSION PROGRAMS

### Natural Resource Enterprise Landowner Workshop Series

The NRE Program has implemented a series of landowner workshops that provide landowners, resource agency staff, and community leaders with the basic tools and background information to make informed decisions regarding natural resource enterprise development, operation, and management. Through partnerships with federal and state agencies, organizations, and businesses, including Mississippi Farm Bureau Federation; Alabama Farmers Federation; Anderson Tully Timber Company; Ducks

Unlimited; Natural Resources Conservation Service (NRCS) of Mississippi; U.S. Environmental Protection Agency (USEPA) in Washington, D.C.; U.S. Fish and Wildlife Service – Region 4 and MS Ecological Services Office; National Fish and Wildlife Foundation (NFWF); Mississippi Department of Wildlife, Fisheries, and Parks; Arkansas Game and Fish Commission; Alabama Cooperative Extension Service; and University of Arkansas Extension Service, the NRE Program has conducted or provided assistance for 12 landowner workshops. Over 800 participants, including 600 landowners, have attended these workshops, representing 45 Mississippi counties and the states of Tennessee, Arkansas, Florida, Louisiana, Texas, and Alabama.

NRE Program workshops are conducted on farms operated by landowners who successfully integrate a fee access recreational enterprise(s) and habitat manipulation with agriculture, forestry, or other land uses. In the morning session, participants hear presentations from and can interact with experts and enterprise operators on topics including types of enterprises and revenue potential of each, business management, marketing, legal considerations, and compatibility with Farm Bill programs. Following lunch on the grounds, participants tour the property to observe enterprise operations and wildlife habitat management practices integrated with production agriculture and supported by Farm Bill program assistance. Participating landowners are given an educational binder that contains over 600 pages of resource materials covering liability, cost-share programs, marketing, business management, types of enterprises and their operations, and habitat management for game and non-game species.

Previous workshops have reached the maximum participant capacity and waiting lists for future events have been initiated. Surveys show that workshop participants ranked the overall effectiveness, quality of educational materials, and workshop format between 4.52 and 4.75 (on a scale of 1 to 5, with 5 being excellent). Through follow-up consultations and site visits by NRE staff, assistance is provided to landowners to plan and initiate a sustainable and feasible natural resource enterprise on their properties.

The NRE Program is currently planning 10 additional workshops in Mississippi over the next 2 years, as well as collaborating on 2 workshops in Alabama and one in South Carolina in 2007. Other Farm Bureau Federation organizations and respective Extension Services from Florida, Oklahoma, North Carolina, Ohio, Indiana, and Michigan have expressed interest in bringing the landowner workshop series sponsored by the NRE Program to their respective memberships and states.

## **Resources**

The NRE Program utilizes a variety of tools to bring current, research-based information about natural resource enterprises to landowners. Information is disseminated through the use of websites, DVD tutorials, radio programs, newsletters, extension publications, articles in popular magazines, professional conferences, and peer-reviewed publications to landowners and resource specialists throughout the state and regionally.

## **Websites**

The NRE website ([www.naturalresources.msstate.edu](http://www.naturalresources.msstate.edu)) is targeted to landowners and resource professionals, providing access to current information on developing fee-access businesses that are compatible with agriculture and forestry. Resources compiled on the NRE website are organized by topic (marketing, habitat management, agritourism, etc.) to make this information more accessible. These resources come from publications and tools produced by institutions of higher education, federal and state agencies, and non-profit organizations. Other resources available on the NRE website include radio show recordings, publications, an event calendar, examples of Mississippi natural resource enterprises, descriptions of NRE-funded research and programs, and related website links. In the future, tutorials and video clips will be added to aid in the transfer of information. The NRE website is actively marketed throughout the state, and it was named the 2006 National Winner in the Communications Awards Home Page Category by the National Association of County Agricultural Agents.

As a component of the program website, NRE staff is designing the Southeastern Outdoor Recreational Interest website to provide a mechanism for landowners in the states of Mississippi, Arkansas, Tennessee, Alabama, and Louisiana to market their recreational properties. This map-based website allows users to view county boundaries, city boundaries, streams and rivers, state and national forests, wildlife management areas, and various types of imagery. After users have reviewed the website, they will be able to submit an interest form with the specific activities and locations of interest to them. This information will be collected in a database that is searchable by landowners, who can then contact potential recreationalists based on the services that they offer. This service will be provided free of charge to landowners and has been well received by participants of recent workshops.

Another website has been developed to advertise the landowner workshop series. Landowners interested in attending an NRE workshop can visit this website ([www.wildlifeworkshop.msstate.edu](http://www.wildlifeworkshop.msstate.edu)) to learn about upcoming workshops, including dates, schedules, topics, locations and registration information. This is a part of the overall marketing effort designed to reach landowners throughout the state; the workshop website address is placed on all other printed marketing materials and mentioned on radio programs. Through these efforts, the NRE Program attempts to provide easy access to information for interested parties.

### ***Natural Resource Enterprise DVD Modules***

As a complement to the landowner workshop series, the NRE Program is designing a series of in-depth instructional DVD's on topics related to developing and managing natural resource enterprises. These tutorials will offer visual aids and interviews with experts on topics such as marketing, business management, legal and liability considerations, fee hunting, fee fishing, wildlife watching, agritourism, and bed and breakfast operations. Where appropriate, specific habitat management recommendations and methods will be discussed, such as moist soil management for waterfowl, bottomland hardwoods, and grasslands restoration. Although this is a multi-year project, the anticipated release of the first DVD in the series is late 2007.

### ***Mississippi Outdoors Radio Show***

The NRE Program has partnered with the Mississippi Department of Wildlife, Fisheries, and Parks and SuperTalk Mississippi to offer a weekly 20-minute segment on the statewide Mississippi Outdoors Radio Show. Hosted by Adam Tullos and Adam Rohnke of the NRE Program, this segment is dedicated to topics relevant to natural resource enterprises ranging from wildlife habitat management to upcoming educational events and workshops. Guest specialists are invited weekly to speak on topics important to landowners or land managers developing or operating an enterprise. To date, the NRE Program has authored and conducted nearly 100 shows, many of which are archived on the program website as a reference for landowners.

### ***Publications***

The NRE Program has developed several publications in an effort to provide landowners with up-to-date, research-based information pertinent to natural resource enterprises. Some examples include the educational binder given to participants of the landowner workshop series, the quarterly landowner newsletter, and a handbook for Mississippi landowners.

Landowners and resource agency personnel who attend a landowner workshop receive an educational binder that contains over 600 pages of resource materials. This binder is organized by topic with information on liability, cost-share programs, marketing, business management, types of enterprises and their operations, and habitat management for game and non-game species.

After landowners participate in one of the landowner workshops, they are added to the newsletter mailing list. Workshop participants were surveyed about how they would like to receive information; they indicated that a newsletter would be helpful to them in development and management of an enterprise. This newsletter allows NRE staff to provide follow-up information and support to interested landowners and

contains articles about specific enterprises, interviews with enterprise owners, wildlife habitat management recommendations, updates on current research, and announcements for upcoming workshops, events, or seminars. A digital copy of each newsletter is archived on the website [www.naturalresources.msstate.edu](http://www.naturalresources.msstate.edu), and visitors to the website may also sign up for the mailing list as well.

The NRE Program has partnered with Mississippi Fish and Wildlife Foundation to co-edit a comprehensive publication entitled, "Fish and Wildlife Management: A Handbook for Mississippi Landowners." This publication authored by university and agency scientists and biologists provides specific management protocols and techniques for wildlife and fisheries management on private lands. The anticipated publication date for this handbook is fall 2008.

### **Demonstration Sites**

Throughout Mississippi, the NRE Program is developing demonstration sites to provide tangible examples of wildlife management, enterprise operations, and the integration of fee-based recreation on farms and forests. Collaboration within Mississippi State University and with outside partners has been extremely important to the success of these projects. Sites will be located on Mississippi Agricultural and Forestry Experiment Station (MAFES) research stations and private properties. Currently, 9 demonstration sites are under development. Visitors will be able to view on-the-ground examples and read interpretive signs on self-guided tours. Additionally, these demonstration areas will be used in conjunction with landowner workshops to effectively illustrate how natural resource enterprises and habitat conservation practices on working farms and forests can be both compatible and complementary to traditional land uses. NRE demonstration sites serve as hands-on introductions into wildlife management, thereby bridging the gap between basic habitat management concepts and understanding annual lifecycle needs of wildlife populations. These sites enable visitors to better understand the management prescriptions used to increase habitat productivity and wildlife attractiveness for recreational properties.

Four of these demonstration areas focus on supplemental plantings for wildlife and are sponsored by Pennington Seed Company. These sites provide additional learning opportunities for those interested in understanding how wildlife species, such as whitetail deer (*Odocoileus virginianus*), mourning dove (*Zenaidura macroura*), bobwhite quail (*Colinus virginianus*), and eastern wild turkey (*Meleagris gallopavo*), interact with different seed mixtures and varieties for wildlife forage. Specifically, visitors to the Pennington Seed Company sites will learn where wildlife plantings will provide the best outcomes, how to plant and manage food plots, when to plant specific forage varieties, and what to plant for the desired wildlife species.

Two other demonstration sites feature waterfowl and pond management. The Charleston Farms Waterfowl Demonstration Area highlights seasonal waterfowl management activities associated with moist soil units and USDA conservation easements available to landowners interested in waterfowl management. The Demonstration Farm Pond in Starkville is a 1.3-acre dry pond bottom that highlights key structural and topographic features that landowners and managers should consider during construction or renovation of small impoundments. The self-guided tour through the pond bottom includes several educational kiosks that discuss important farm pond management topics, such as aquatic plants, stocking rates, and harvesting rates.

### **Natural Resource Enterprises Demonstration Center**

The NRE Program is currently developing a multi-topic demonstration area on the 1,172-acre MAFES Coastal Plains Branch in Newton, MS, called the Natural Resource Enterprise Demonstration Center. The Center will provide concrete examples for landowners on how to manage natural resource enterprises. The Center will include 5 demonstration areas: Nature Trail and Lake, Backyard Habitat, Wildlife Management, Agriculture, and Forestry. These areas will cover specific topics, including farm pond management, backyard habitat, supplemental food plot management, wildlife management (game and non-game), nature trail design and maintenance, native prairie and grassland restoration, traditional and non-traditional forestry practices, wetland management, agritourism, and outdoor recreation management. A comprehensive environmental educational program, educational kiosks, and materials are being designed

and produced for the Center not only for landowners interested in natural resource enterprises, but also for youth and adults from local communities.

The Center is currently in phase 1 of a 3-phase project over 4 years. Recently, the NRE Program was awarded a National Fish and Wildlife Foundation's Southern Company's Power of Flight grant to assist in funding the Nature Trail and Lake area (completion expected in Fall of 2008). Once complete, the Center will host NRE landowner workshops, field days and events, and function as an environmental education and research center for the local community.

## **PROGRAM FUTURE**

The NRE Program will continue to expand the scope of the landowner workshop series in the South and nationwide through collaborations with producer organizations, institutions of higher learning and non-profit organizations. Also, we will continue to provide training opportunities to Mississippi landowners and limited-resource farmers through additional workshops scheduled throughout the state, release of publications on wildlife and business management, and deployment of web-based and DVD educational media.

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