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Using Workshops to Educate Landowners About Developing Natural Resource Enterprises to Diversify Income on the Family Farm

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Using Workshops to Educate Landowners About Developing Natural Resource Enterprises to Diversify Income on the Family Farm

Abstract

Enterprises based on the natural resources available on farm and other private lands, such as fee-access hunting and fishing, agritourism, and wildlife watching, can provide opportunities for supplementing and diversifying income. Workshops featuring a combination of presentations and field tours were implemented throughout the southern U.S. to educate landowners on the benefits, considerations, and management of these enterprises. Participants were surveyed regarding workshop quality and future land management activities. Most landowners reported that the information gained at these events would increase revenues collected on their properties and that they expect to modify their current land use practices as a result.

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Introduction

This article reports on an evaluation of the effectiveness of interactive workshops in educating non-industrial, private (NIP) landowners about business development and wildlife habitat management opportunities on their properties for income diversification. These workshops were conducted on demonstration farms or properties engaged in fee-access natural resource enterprises. Additionally, we describe the Natural Resource Enterprises Program at Mississippi State University developed to educate landowners about enterprise opportunities and wildlife habitat management on their lands. Last, we report findings from responses to questionnaires administered to workshop participants at training events.

Demand for quality outdoor recreation that involves hunting, fishing, wildlife watching, horse trail riding, or other farm and nature-based tourism is increasing. U.S. citizens spent over \$122 billion on wildlife-related recreation in 2006 (USDI, 2006). In the South, outdoor enthusiasts spent \$23

billion for recreational hunting and fishing, and \$8.9 billion for wildlife watching. Past research found that revenues collected in 1998 from fee hunting on Mississippi private lands ranged from \$2,964 to \$5,254 on average per landowner, or \$3.10 to \$5.90/acre, depending upon the region of the state evaluated. Net revenues averaged from \$1,539 to \$3,244 per landowner, or \$1.60 to \$3.91/acre (Jones, Jones, Munn, & Grado, 2005). Additionally, fee-access wildlife recreation increased average proceeds collected from Mississippi land sales by \$332/acre or 36% from 2002 – 2005 (Jones et al., In press). Despite the economic and environmental benefits of natural resource enterprises, only 10-14% of Mississippi NIP landowners participated in these businesses on their properties (Jones, 2005). Similar trends in revenues and land values associated with fee-access wildlife and fisheries recreation have been documented in other southern states (Richardson, Yarrow, & Smathers 1992, 1996).

Marginal lands, such as agricultural field borders, wetlands and wetland forests, and riparian corridors along watersheds, are often difficult to farm or manage for timber due to flooding problems or regulatory restrictions (NRC, 1992). However, these properties are ideal for conserving wildlife and fisheries habitat and can be readily enrolled in fee-access recreation businesses and cost-share assistance programs. Revenues from fee-access recreation on Mississippi NIP lands were substantially greater on forested and managed agricultural lands, particularly bottomland hardwoods and forested riparian buffers along watersheds. This finding reveals that NIP landowners can generate income from conservation and restoration of sites that were marginal for agriculture or development (Jones et al., 2005). The study also revealed that fee-access recreation and wildlife habitat conservation promoted by USDA-NRCS Farm Bill programs were compatible with agriculture and forestry.

Natural resource enterprises may include outdoor activities, wildlife-related recreation, and associated amenities, such as hunting and fishing, agritourism, wildlife watching, trail riding, bed and breakfasts, and corn mazes. Establishing these types of enterprises on family farms provides multiple benefits, including the diversification of family incomes, land ownership retention, conservation and stewardship of the land, improved watershed integrity, reduced regulatory measures for environmental protection, and sustainable rural development (Jones et al., 1998).

Natural Resource Enterprises Program

The Natural Resource Enterprises Program (NRE) <www.naturalresources.msstate.edu> was established in the Department of Wildlife and Fisheries and Cooperative Extension Service at Mississippi State University (MSU) to educate NIP landowners in the South about fee-access recreation business development (i.e., hunting and angling leases and outfitting, wildlife watching, agritourism), compatible habitat management practices, and integrating enterprise operations with agriculture and forestry. Traditionally, educational materials for natural resource enterprise development, though available, have been scattered in different locations. As a result, landowners may not be aware of the resources available.

Working with program partners, we have developed educational workshops, demonstrations, and resources to inform landowners, agency professionals, and community leaders about enterprise opportunities and associated wildlife habitat management on private lands. NRE Program partners include federal resource agencies and land-grant universities, farm bureaus and agricultural trade organizations, state agencies, non-governmental organizations, and private-sector firms from Alabama, Arkansas, Mississippi, South Carolina, and Tennessee.

Workshops

NRE workshops provide landowners with the opportunity to learn from and interact with resource and agency professionals as well as to view wildlife habitat and enterprise management activities first-hand. We conduct workshops on properties traditionally managed for agricultural and timber production that also support a fee-access outdoor recreation enterprise. When a property with an existing enterprise is not available, workshops are conducted on properties that demonstrate successful wildlife habitat management, but also have the potential for enterprise development.

At each workshop, participants receive a diversity of learning experiences and information related to enterprise development. To give attendees a broad overview of natural resource enterprise development and wildlife management, we have divided NRE workshops into two components, a morning session with presentations by resource and agency professionals, landowners with enterprises, and other specialists, and an afternoon session that is conducted in the field. In the morning session, speakers from universities, resource agencies, and organizations present information on a variety of topics to give participants a summary of considerations and skills necessary to develop and manage an enterprise.

Presentation topics include:

- Revenue potential from natural resource enterprises,
- Business planning and management,
- Marketing an enterprise,

- Liability and legal considerations,
- Cost-share assistance programs,
- Wildlife habitat management practices, and
- Enterprise owner testimonials (agritourism, fee-hunting, wildlife watching, etc.)

After the morning presentations, a catered lunch is served on the grounds, allowing workshop attendees the opportunity to interact with speakers, NRE Program staff, agency biologists, and other landowners. Following lunch, workshop participants tour the property to observe enterprise operations and wildlife habitat management practices integrated with agricultural production or forest management. At previously chosen stops on the property, university and agency staff and landowner hosts discuss wildlife management practices integrated with farm and timber production, cost-share assistance programs, and enterprise examples and operations.

Each workshop attendee is given a resource binder containing over 600 pages of compiled information on enterprise operations, business management and marketing, liability reduction, wildlife habitat management, cost-share assistance, and other topics pertinent to managing an enterprise. A sheet with contact information for each workshop speaker is provided to attendees for those who wish to obtain further information or request a follow-up site visit from NRE, university, or agency biologists and staff.

Program Partners

The success of this program is largely due to the strong involvement of partners. Partners actively participate in workshops as well as assist with advertisement and recruitment for these events. Representatives from collaborator groups also serve as members on the NRE Program Advisory Committee to provide input and assistance in programming and outreach development. Program collaborators include federal and state agencies, non-profit organizations, institutions of higher learning, and businesses. These organizations include, but are not limited to:

- Alabama Farmers Federation;
- Alabama Cooperative Extension Service;
- Alabama Department of Conservation and Natural Resources;
- Arkansas Farm Bureau Federation;
- University of Arkansas Extension Service;
- Arkansas Game and Fish Commission;
- Mississippi Farm Bureau Federation;
- Ducks Unlimited;
- Natural Resources Conservation Service;
- Massey, Higginbotham, Vise, and Phillips, P.A. of Jackson, Mississippi;
- Mississippi Department of Environmental Quality;
- Mississippi Department of Wildlife, Fisheries and Parks;
- South Carolina Farm Bureau Federation;
- Clemson University;
- South Carolina Department of Natural Resources;
- Anderson-Tully Worldwide;
- U.S. Environmental Protection Agency in Washington, D.C.;
- U.S. Fish and Wildlife Service — Region 4 and Mississippi Ecological Services Office; and
- National Fish and Wildlife Foundation.

Participation

As evidenced by attendance at workshops, interest in enterprise development, wildlife habitat management, and income diversification on private lands through fee-access outdoor recreation is high. During 2005 and 2007, the NRE Program and partners have conducted 18 landowner workshops and in-service training for resource agency and Extension staffs in Alabama, Arkansas, Mississippi, and South Carolina. Attendance at these events has been exceptional, with approximately 1,000 participants, including 800 landowners representing 45 Mississippi counties and the states of Alabama, Arkansas, Florida, Louisiana, South Carolina, Tennessee, and Texas. The University of Arkansas Cooperative Extension Service along with its state partners has successfully conducted additional landowner enterprise workshops modeled closely after NRE-sponsored events in Mississippi. Program partners in Alabama, Tennessee, and South Carolina are also considering expanding landowner outreach programming in their respective states.

Marketing the NRE Program and its activities is an important tool in reaching our client base. We utilize multiple methods to reach a wide audience in the South. Workshops are announced with statewide press releases, radio public service announcements, and direct mail letters. Brochures and posters for each workshop are disseminated through partner organizations and county Extension offices. Additionally, a Web site with information on scheduled workshops, directions to each event, and registration information has been established to promote these events <www.wildlifeworkshop.msstate.edu>. These methods have been successful in publicizing events and achieving maximum attendance at most venues.

To evaluate satisfaction levels of workshop participants, research and Extension faculty at Clemson University developed a workshop attendee satisfaction survey. The questionnaire has subsequently been implemented by NRE Program staff in Mississippi. Participants were asked to complete the questionnaire at three recent educational workshops in Mississippi and South Carolina. Attendees were asked to rank workshop content, instructors, facilities, and program value. Due to survey design, not all questions pertain to or were answered by every respondent completing the questionnaire. Responses from the three workshops were pooled and evaluated on participant ratings of educational information and resources provided. Participants were asked to rank the following workshop quality factors on a Likert scale from 1 to 4, with 1 being poor and 4 being outstanding on workshop content, quality of materials and handouts, quality of instructors' presentations, instructors' knowledge levels, accommodations, food arrangements, and overall workshop rating.

Results

Findings indicate that several methods are required to reach the intended audience with participants learning about events through the following methods (Table 1).

Table 1.
Participation Resulting from Advertisement Medium Used to Advertise Natural Resource Enterprises Workshops in Mississippi and South Carolina

Medium Used	Percentage of Participants (n = 146)
Direct Mail	39
MSU Extension Office	14
Newspaper	14
Partner Organizations	14
Radio	5
Other (e.g., word of mouth, farm supply stores)	19

One hundred eighty-five landowners attended the three workshops in Mississippi and South Carolina in early 2007, accounting for an average workshop attendance of 62. While this attendance was slightly less than landowner participation in forest management workshops in southeastern states during 2003 (Hughes, 2005), it was considerably higher than the 17 participants per forest management short course reported by Londo and Monaghan (2002).

Out of the 185 landowners in attendance, 146 completed, useable questionnaires were collected. Direct mail letters with brochures were the most effective tool used in advertising NRE workshops to clientele (Table 1). Similar results in advertising methods employed were reported by Hughes (2005). Landowner names and addresses were compiled using Mississippi county tax roll records and landowner group listings provided by Farm Bureau Federation and local extension offices in Mississippi and South Carolina.

Diversity of landowner participants was determined by visual observation at workshops and not by completed survey responses. Although the majority of landowners participating in workshops were Caucasian males, these workshops did reach diverse groups through various advertising media. Twenty-two percent of participants were Caucasian females, whereas a small number of attendees were African-American or Asian-American (n = 6). Participation by minority groups in these three events, though relatively low, may provide evidence of interests in enterprise development on private lands by minority landowners. However, other advertising methods may need to be identified to effectively reach a higher percentage of minorities, particularly African-American and Asian-American landowners.

Respondent ratings of workshop quality factors (workshop content, quality of materials and handouts, quality of instructors' presentations, instructors' knowledge levels, accommodations, food arrangements, and overall workshop rating) ranged from 3.22 to 3.79, with the overall rating for the three events being 3.66 (SE = 0.043). Eighty-five percent of respondents (n = 132) reported that they expected to modify current land use practices on their properties based on the knowledge gained from workshop participation. Specifically, participants reported that they plan to increase participation in cost-share assistance programs (i.e., Conservation Reserve and Wetlands Reserve Programs, Wildlife Habitat Incentives Program) by enrolling marginal agricultural lands and to implement wildlife habitat management practices on their agricultural and forest lands.

Next, respondents were asked if the information learned would increase revenues collected from their properties based on initiating fee-access recreation enterprises. Most respondents (95%, n = 128) reported that revenues collected on their properties would increase due to initiating a recreation enterprise and participating in cost-share assistance programs. Additionally, respondents were asked to report the amount that they expected income to increase from their property due to establishing a recreation enterprise (Table 2).

Table 2.
Expected Income of Landowner Respondents from Natural Resource Enterprises Developed on Their Properties Based on Information Obtained at Educational Workshops in Mississippi and South Carolina

Expected Income from Enterprise Development	Number of Responses (n = 80)	Percentage (%) of Total Responses
\$1,000 - \$5,000	27	34
\$5,001 - \$10,000	12	15
\$10,001 - \$25,000	26	33
\$25,001 - \$50,000	6	7
\$50,001 - \$100,000	8	10
Over \$100,000	1	1

Respondents reported that they expected to average an additional \$19,531 annually per individual from establishing a recreation enterprise on their properties based on information obtained from workshop participation (Table 2). At the time of the survey, 40% of respondents (n = 139) leased properties for fee-access recreation. Of those respondents who attended Mississippi workshops who did not lease properties (n = 41), 54% of these landowners reported that they planned to initiate a recreation business on their lands based upon information obtained from workshop participation.

Table 3.
Expected Income Collected by Participants from Natural Resource Enterprises Developed on Their Properties Based on Land Ownership Trends from Information Obtained at Workshops in Mississippi and South Carolina

Acreage Categories (n = respondent number)	Mean Income per Respondent (SE)	Mean Income per Acre
1 — 250 (n = 26)	\$16,423 (4,086)	\$127
251 — 500 (n = 18)	15,139 (4,076)	38
501 — 1,000 (n = 15)	15,333 (5,286)	19
1,001 — 5,000 (n = 13)	25,000 (6,511)	13
> 5,000 (n = 4)	73,125 (21,970)	5

On a per acre basis, respondents expected to collect \$11.58/acre on average in income from these businesses. Expected mean earnings from fee-access enterprises among small to medium size landowners in terms of acres owned were fairly consistent, whereas larger landowners expected to earn higher revenues (Table 3). This finding was expected because landowners owning more property committed to enterprises would expect to earn more income overall compared to smaller landowners.

However, when evaluating mean earnings on a per acre basis, smaller landowners expected to collect more revenues per acre as compared to landowners owning larger acreage tracts. One possible explanation of this finding might be that landowners owning smaller tracts typically can charge higher per acre leasing rates than landowners leasing larger, contiguous tracts of property for hunting purposes (Jones, 2005). Additionally, select smaller tracts comprised of highly desirable wildlife habitats, such as wetlands or flooded agricultural fields for waterfowl or bottomland hardwood forests within alluvial floodplains often garner higher lease rates in the Southeast for hunting (Jones, 2005; Jones, In press).

Conclusion

Past research has shown that NIP landowners earn additional revenues from their properties through fee-access outdoor recreation businesses. As a result, NRE Program staff have developed workshops to educate landowners, land managers, resource agency professionals, and government leaders about fee-access recreation enterprise opportunities and integrated wildlife habitat management. Survey findings reveal that workshop participants believe that they have become more knowledgeable in enterprise operations and associated wildlife management and expect to earn additional income from these practices on their lands.

Multi-state stakeholder collaboration among land-grant universities, federal and state resource agencies, conservation and agricultural trade organizations, and private-sector groups has been vital in the design and implementation of comprehensive outreach programming to attract and educate agricultural producers and forest landowners at workshop events. Additionally, assertive

advertising of workshops through a variety of advertising methods has generated high participation rates from landowner clientele and attracted minorities to educational venues. Workshop formats involving resource professionals, legal and business experts, and landowner speakers allow participants to learn from diverse instructors with different perspectives on land management and enterprise development. Also, hosting workshops on landowner demonstration farms facilitates a unique opportunity for landowner interactions and for viewing a successful enterprise operation on the ground.

Although the NRE Program continually develops tools and resources to educate landowners and resource agency personnel, workshops will continue to be an important delivery mechanism in outreach programming and technology transfer as similarly demonstrated by Landefeld and Schumacher (2006); Kelsey, Schnelle, and Bolin (2005); and Decker, Lassoie, Goff, and Parrish (1988). We believe that this unique approach of participatory teaching, marketing, and information dissemination through workshop programming is effective at delivering quality information to clientele, increasing profitability on family farms, and enhancing conservation and sustainability of natural resources on the land base.

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