

Using Cost-share Dollars to Encourage Wetland Habitat Management, Waterfowl Harvest Success, and Wildlife Enterprise Development in the Delta of Mississippi

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Abstract: Moist-soil management activities vary greatly throughout the Mississippi Alluvial Flood Plain on public and private lands. Understanding the differences in management strategies among landowners and public managers is challenging. Financial limitations, lack of knowledge, and proper timing of applications all present challenges to implementation of moist-soil management practices. As an outreach education tool for public and private land managers, we established a demonstration site in Tallahatchie County, Mississippi, to illustrate the impacts of active and passive moist-soil management regimes. We conducted manipulations on this demonstration farm for three years (2005–2007) and used mechanical treatments, water level management, and agricultural plantings within moist soil impoundments to demonstrate an array of habitat management techniques. To illustrate the use of these techniques we provided cost share funding to the cooperating landowner each year of our three-year study period. These funds were disbursed at increasing levels each year corresponding to planned incremental changes in habitat prescriptions, US\$30.35, \$78.91, and \$151.76 per hectare. The use of cost sharing habitat practices has been used to stimulate management activities within many government programs. We found that using cost share money to stimulate waterfowl management activities on private lands and on wetland reserve program lands contributed to an increase in private land interest in moist-soil management and promoted additional spending by cooperating landowners in subsequent years of \$7.77 per hectare. During the three-year project period we also collected on-site waterfowl harvest data to evaluate attractiveness incurred during the enhancement phases of the project. Although many factors affect general overwintering populations and harvest effectiveness of hunters, we saw a general increase in total harvest as levels of management activity increased: 3.3 birds/man/day, 5.3 birds/man/day, and 5.0 birds/man/day. These harvest levels correspond to the increase in management activity on-site across the project period. Annually we conducted a one-day waterfowl management field day at the end of each project enhancement phase. This was done to assist landowners and farmers in managing over-wintering habitats and foraging areas on their lands for migrating waterfowl. Of those attending the workshops ($n = 74$) the vast majority of attendees (87%) reported that they plan to modify their current land-use practices to incorporate waterfowl management and wildlife conservation on their agricultural properties. Additionally, workshop participants reported that they expect to earn an additional \$50,000 in individual family farm income by engaging in fee-access recreation involving waterfowl hunting. Across all workshops, attendees ranked these management sessions 3.8 out of a possible four. However, only 16% of the landowners not currently leasing their land expect to implement a waterfowl lease based on these values.

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