

Benefits to Forest Industry from Hunting Club Cooperatives

by

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Abstract:

Forest industry, including Real Estate Investment Trusts (REITs) and Timber Investment Management Organizations (TIMOs), typically lease hunting access on sizable portions of their landholdings to various groups (e.g., hunting clubs). Studies have shown both market and non-market values and benefits associated with these leases but there are also negative issues such as inter-club disputes or incompatible hunting practices among club members. However, for companies involved in this activity, monetary incentives and stewardship gained from leases usually outweigh these negatives. In some cases, hunting club cooperatives (HCC) have been employed to ease facilitation of hunting lease programs, wildlife management, and habitat management. These cooperatives can improve management for white-tailed deer, the most often pursued game animal in North America, via quality deer management (QDM) principles. HCCs are relatively new, especially in the southern United States, and appear to provide additional benefits to both the forest industry landowners and hunting clubs. With more hunters and hunting clubs wanting to implement QDM, HCCs, with state agency tie-ins, have the potential to assist in reaching the program's goals. A recent survey of Mississippi hunting clubs leasing Weyerhaeuser Company land indicated that willingness-to-pay increased when a cooperative implementing QDM practices was established. Hunters currently enrolled in a cooperative indicated they would pay \$1.42 more per acre while those not enrolled in a cooperative were willing to pay \$1.13 more per acre over their current lease price if they were enrolled in such a cooperative. Such HCCs have the potential to improve lease prices, provide greater deer management opportunities, and increase customer satisfaction.

Key words: benefits, cooperatives, forest industry, hunting clubs, hunting leases, willingness-to-pay

Background:

Numerous studies have examined hunting leases on nonindustrial private forest (NIPF) lands (e.g., Benson 2001, Hussain et al. 2004, Mozumder et al. 2007) but fewer have focused directly on forest industry leases (Marsinko et al. 1999, Morrison et al. 2001, Guynn and Marsinko 2003, Cook 2007) while even fewer have discussed hunting cooperatives (Guynn et al. 1983, Messmer et al. 1998, Yarrow et al. 1989, Enck et al 2003). While the cooperative framework has been around many years, it has not been widely used, and therefore, not widely studied. This paper will describe previous studies and also detail a case study of a current hunting club cooperative (HCC) in Mississippi.

A number of studies show the increasing amount of industrial lands being leased for hunting. Forest industry, including Real Estate Investment Trusts (REITs) and Timber Investment Management Organizations (TIMOs), typically lease hunting privileges on sizable portions of their forest landholdings to hunting clubs (Capozzi and Dawson 2001, Morrison et al. 2001), which occupy approximately 40 million acres in the southern U.S. (Wear and Greis 2002). A 1999 study by Capozzi and Dawson (2001) reported that forest industry companies in New York had 75% of their lands in recreational leases. Morrison et al. (2001) reported the amount of industry land leased to hunting clubs and individuals was 76.6% compared to 64.5% in 1994 while during this time period there was a 42% increase in lease values per hectare, from \$6.82 to \$9.69.

Many benefits were observed by landowners, including forest industry, when leasing land for hunting privileges. Such investments in hunting leases provided for consistent supplemental annual revenues to landowners, improved access control, land protection and in-kind labor assistance, increased property values, an increased feeling of stewardship, while also creating public relations opportunities with sportspersons (Marsinko et al. 1999, Yarrow 1999, Morrison et al. 2001). Yarrow (1999) additionally stated that hunters benefit with increased quality and availability of hunting opportunities and an increased standard of hunter behavior (i.e., less trespassing and land abuse problems). Along with these benefits, negative issues also arise. Yarrow (1999) stated that disadvantages of leases included liability issues, resentment by local

hunters (especially if the leases go to non-residents), cost of habitat and administrative management, lack of financial incentives, and lack of technical and educational support to facilitate leasing. Problems reported by Morrison et al. (2001) included road damage, trash dumping, illegal hunting, and legal over-harvest of game animals but these issues had the potential to be resolved by implementing a leasing program. Cordell et al. (1999) forecasted that game quality, scenery, improved facilities, control of human impacts, habitat improvements, and other related services would be more heavily demanded in the future. Mozumder et al. (2007) indicated that amount of private lands available for recreational leasing may continue to decline into the future. This indicates that forest industry may play a larger role in filling the lease market niche.

One way to improve white-tailed deer (*Odocoileus virginianus*) herds and buck quality is use of Quality Deer Management (QDM) principles which involve habitat, hunter, and herd management (including protection of younger bucks and adequate doe harvest) and monitoring (Collier and Krementz 2006, Edwards and Miller 2008, Miller 2010, Quality Deer Management Association 2010). Bull and Peyton (2001) found that 55% of Michigan survey respondents supported management techniques that produced an older age structure among bucks and 59% of those who supported antler restrictions were interested in seeing and/or harvesting bucks with larger antlers. In Mississippi and South Carolina (Woods et al. 1996) and New York (Enck et al. 2003), hunter satisfaction increased on areas managed using QDM principles. Although QDM may increase hunter satisfaction and provide economic incentives to landowners to implement such a program, QDM is more effectively applied on a land base larger than a typical lease holding (Miller 2010). Also, because most leaseholders operate independently, there is limited ability to effectively manage deer herds within a given area. In Mississippi, the typical lease size is smaller than 1,000 acres (Table 1). Therefore, formation of HCCs, where adjoining hunting clubs collectively manage the deer herd thus increasing effective area of management, may also increase QDM program success and increase stakeholder interaction. Hunting quality (a current focus of hunters and many state wildlife agencies) and revenue from hunting may be enhanced through HCCs and adherence to QDM principles.

Because hunters have clearly shown a willingness to pay higher lease rates to maintain access to quality hunting land (Fried et al. 1995, Green et al. 2004, Hussain et al. 2004), there may be opportunities for landowners to charge higher lease prices by providing higher quality hunting experiences. For example, Huggins et al. (2005) found hunters in Oklahoma bid higher on lands where they had previous hunting experience and knew the quality of bucks. Hussain et al. (2004) determined that Alabama hunters were willing to pay \$1.29/acre/hunter, an increase of \$0.77/acre/hunter over what respondents currently paid for their leases. Huggins et al. (2005) determined there was no economic loss for implementing moderate buck harvest limits on leases in Oklahoma. By decreasing the buck harvest limit from 12 to 3, the mean bid was only 15% lower for the 3 buck harvest area compared to the 12 buck harvest area (Huggins et al. 2005). Huggins et al. (2005) also noted that the highest bids were received from groups with prior experience on the property noting they had observed deer patterns and buck quality. Willingness-to-pay for the New York hunting club respondents increased by more than 70% for those with incomes in excess of \$50,000 and those more avid hunters (measured by annual expenditures and days afield at camp) also increased willingness-to-pay (Green et al. 2004). Income and avidity were positively correlated to a respondent's willingness-to-pay (Fried et al. 1995, Green et al. 2004). Cook (2007) found that quality deer availability had no influence on observed lease prices, but also stated that data used for his analysis may be the limiting factor causing that outcome. Mozumder et al. (2007) stated that hunters were willing to pay higher lease prices for access to private lands due to the hunting quality found on public lands.

Table 1: Example hunting lease acreages and prices from various forest industries in Mississippi during the 2009-2010 hunting season.

Acreage	Lease Price (\$)	Price/Acre (\$)
52.90	489.33	9.25
180.24	1,892.52	10.50
308.46	3,692.33	11.97
619.37	7,432.36	12.00
678.55	7,124.78	10.50

Proper education and management advice from state wildlife agencies could also be key in HCC and QDM implementation. Benson (2001) found that 96% of wildlife agencies believed hunting access to private lands was vital to their organization's objectives. Benson (2001) also recognized that more cooperation, landowner empowerment, technical support, educational

assistance, and funding were goals that landowners and state wildlife agencies must achieve to impact proper wildlife and habitat management and recreationists behavior on private lands. Yarrow (1999) also concluded that state wildlife agencies must develop stronger programs working with landowners leasing lands to protect and enhance wildlife habitat and develop assistance programs supporting landowners leasing lands. This indicated that greater cooperation between wildlife agencies and landowners was needed. Supporting this assessment, Collier and Krementz (2006) indicated that only 19% of Arkansas hunting camps have worked with Arkansas Game and Fish Commission (AGFC) biologists and this was more prevalent on camps leasing lands from forest industry. Most respondents (56%) suggested that direct contact and/or recommendations from AGFC biologists would be most beneficial for their camp followed by management assistance programs (49%), population estimation (47%), and habitat development programs (43%) (Collier and Krementz 2006).

Studies regarding lease cooperatives were few with most not addressing industrial landholdings. However, cooperatives allow for landowners, hunters, and wildlife management agencies to reap many benefits while negating many disadvantages associated with hunting leases. Messmer et al. (1998) studied participants in Utah's Cooperative Wildlife Management Units (CWMUs) which provided public access to private lands that had previously been closed to the public. Hunters enjoyed the CWMUs because there were fewer hunters, chances of harvesting animals increased, and a better quality hunt was available to them (Messmer et al. 1998). Many landowners participated in the CWMUs to help control trespassing, property damage, and vandalism. Messmer et al. (1998) concluded that cooperative programs could help balance landowner concerns, hunter interest in wildlife, and the biological needs of wildlife. Guynn et al. (1983) indicated that management of deer harvests in Mississippi must occur across private lands due to the nature of this State's landownership. Guynn et al. (1983) discussed the Mississippi Cooperative Deer Management Program (MCDMP) which was initiated in 1977 by the Mississippi Department of Wildlife Conservation (now Mississippi Department of Wildlife, Fisheries, and Parks). Program goals included actively involving the sportsmen in the management process, reduce deer densities, and increase quality of deer harvested (Guynn et al. 1983). With increased education, hunter attitudes towards harvesting antlerless deer changed and led to a cooperative management agreement among numerous clubs in the area (Guynn et al.

1983). Yarrow et al. (1989) described three landowner demonstration cooperatives in northeast Mississippi consisting of 62 landowners. Landowners were informed how to organize cooperatives, provided management recommendations, and provided technical management and marketing assistance to use the existing natural resources in increase their profits. Yarrow et al. (1989) also listed several advantages of forming cooperatives including a larger land base for management, increased recreational opportunities for sportspersons, increased awareness of wildlife values on NIPF lands, and increased investments in wildlife and forest management activities. Disadvantages included difficulty among groups to agree on management objectives and efforts required to coordinate the cooperative activities. These programs demonstrated the effectiveness for managing deer on private lands and have led to improved deer herds.

Case Study:

In an effort to verify willingness-to-pay and improved public relations garnered from hunting club leases implementing QDM techniques, Weyerhaeuser Company (hereafter, Company) established an HCC program during the fall of 2004. It consisted of six hunting clubs covering 11,500 contiguous acres, imbedded within 60,000 acres of Company lands, in Kemper County, Mississippi with the purpose of implementing QDM on a large landscape. This was a collaborative endeavor between the six hunting clubs, the Company, and Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP). Weyerhaeuser Company and MDWFP were interested in continuing this effort, potentially expanding it to other Company lands, and perhaps to other landowner groups and/or hunting clubs. To understand marketability of this concept, the Company cooperated with MDWFP and researchers from Mississippi State University to develop survey instruments for both HCC and non-HCC club members. Prior to survey implementation, we pilot-tested both surveys with three hunters to ensure the instruments would deliver the desired information and results. Our formal survey process (Dillman 2000) consisted of mailing the survey in June 2009, one week later sending a thank you/reminder postcard, and four weeks after mailing the initial survey, mailing a second survey. The survey was mailed to all members ($n = 132$) of the six HCC hunting clubs. Additionally, we randomly selected 750 hunters from a database of all hunters leasing Company lands in Mississippi. We also offered an

incentive (randomly drawn participant from each survey group received a gift card of nominal value) to increase response rates.

The HCC group had a response rate of 56.6% (n=64) while the non-HCC group response rate was 34.2% (n=206). Overall, HCC respondents were more positive towards the Company in general (63.5%) than before starting the HCC program (52.4%). As for the cooperation and guidance given to the clubs, HCC respondents ranked the Company more positively (69.8%) than the general respondents (48.5%). Most (78.7%) HCC responders indicated they were satisfied with their current situation and 69.8% felt they were achieving an acceptable return for their club investment into the cooperative. Willingness-to-pay was also greater for the HCC group compared to the general respondents with the HCC respondents willing to pay \$1.42 compared to \$1.13 more per acre, respectively, over their current lease rates for the hunting club cooperatives. A summary of these results were also presented to hunters in the HCC in Scooba, Mississippi and they were, in general, favorably received by those in attendance.

Conclusions:

Previous research and the Weyerhaeuser Company case study have demonstrated that hunting leases have many benefits not only for the landowner but also for hunters, hunting clubs, and wildlife agencies involved. Forming a HCC could potentially lead to higher annual revenues being produced from lease fees charged to hunting clubs. Perceptions towards forest industry and the wildlife agencies could be enhanced by forming the cooperative and having more interactions with hunting clubs. Also, by having multiple clubs covering larger acreages in agreement with management programs, improvements to the quality of the deer herd is more feasible, resulting in a true win-win situation for all involved.

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