



Natural Resources Conservation Service

Michigan



**Conservation Treatment Effects
Northern Lower Michigan Forest Management**

Resource Setting- 80 Acres, Northern Hardwoods, (22 acs.) Red Pine, Spruce and Fir Plantations (56 acs.)
Tree Farm acquired in 1992-previously was unmanaged. Owners: K.R. and C.L. Martell, Antrim Co.

<p>CONSERVATION TREATMENT:</p> <ul style="list-style-type: none"> • Forest Stand Improvement on 33 acres (666) • Forest Harvest Trails and Landings on 2 acres (650) • Upland Wildlife Habitat Management on 3 acres (645) • Tree and Shrub Establishment on 25 acres (612) 	<p>CONSERVATION OBJECTIVES:</p> <ul style="list-style-type: none"> • Manage forestland in a sustainable manner to provide income level of \$150/ac/year by year 2010. • Improve upland wildlife habitat and recreation potential.
<p>POSITIVE EFFECTS +</p> <p>+ Improved quality and quantity of timber</p> <ul style="list-style-type: none"> • Thinning and weeding of damaged, diseased, deformed, and cull trees from 22 acres in year 2002 provided a total income of \$4,612. • In 2002, Forest Stand Improvements on 22 acres produced 5,420 board feet of saw logs (avg. diameter of 12” and avg. length of 8.7 ft) 31.46 cords of hardwood pallet logs, 1,400 board ft. of grade logs and 295 tons of mixed hardwood pulp. • Better stand composition and healthier and more vigorous trees that will produce higher quality saw logs for the next harvest. • Sustainable harvests cut no more than annual growth of timber estimated at 3% per year. This amount, if harvested in accordance with good forestry practices, can be done indefinitely without negatively affecting regeneration capabilities. • The stand will regenerate naturally. <p>+ A local timber company did the harvesting in return for the logs and the above payment.</p> <p>+ The stand will produce an economic return at each harvest with normal, continuing management.</p> <p>+ The market price for wood products sold as stumpage increases annually. Which is favorable compared to other investment opportunities.</p> <p>+ Wildlife Habitat</p> <ul style="list-style-type: none"> • Planting of mast-producing trees and shrubs and the maintenance of the density of trees will increase the recreational potential and benefit wildlife. • Increased number of grouse, whitetail deer, and wild turkey for hunting opportunity. 	<p>NEGATIVE EFFECTS -</p> <ul style="list-style-type: none"> - Neglect and mismanagement of forest by prior owners delayed harvest and reduced income level. - There are annual ownership costs associated with property before you receive any income (i.e. property tax burden is \$12/ac/yr). - Minor temporary damage to understory vegetation caused by logging equipment, but can be minimized by harvesting with snow cover. - Some damage done to residual crop trees in stand, equal to less than 1%. - Wildlife displaced for several days (14) during harvesting operations. - Opportunity cost associated with a more lucrative land use, such as subdivided neighborhoods. - Tree planting costs and maintenance <ul style="list-style-type: none"> - \$120/1000/ac for seedlings - machine planting \$140/1000/ac - hand planting \$180/1000/ac

For more information on this Conservation Treatment, contact your local NRCS Service Center.

On the web, find your local Service Center at: <http://www.nrcs.usda.gov>

Last Update 6-17-02

Data Sources: MSU Forestry AoE team, USDA- NRCS (MI) and www.fao.org

Forests as a Viable Cash Enterprise



Most landowners do not practice good woodlot management. For many reasons, such as not realizing that forests are a manageable resource, believing that allowing the forest to grow unmanaged will maximize benefits, ignorance of practices and applications, and mistrust for the logging business. In the past, most woodlots were periodically cut with little or no concern for improving the remaining stand. By maintaining, improving, and thinning a forest stand, farmers can assure continuing yields of wood-related products and services. Management practices allow each acre of forest to produce maximum, in intangible benefits, such as aesthetics and environmental enhancement, or in tangible products, like various wildlife species, fuel wood, pulpwood, sawlogs, or veneer.

Where there are commercial markets for wood or for other tree products, farmers may undertake a more intensive program of tree management and cultivation to produce goods for sale. Under these circumstances, trees assume the character of many cash crops: they must be planted, harvested and marketed, while the addition of other inputs such as fertilizers and irrigation may increase the farmers' returns.

Experience has shown that market demands can provide significant incentives for farmers to take up tree growing. There can be a number of advantages in terms of resource allocation. Tree crops can be more profitable than alternative crops; they can allow an economic use of land unsuitable for agriculture; they may be more easily adapted to family labor availability than other farm activities. As they do not perish if not harvested at a particular time, trees can be left growing until market conditions are favorable and can thus be less financially risky than annual crops. Once established, trees may also survive times of drought better than annually planted and harvested crops.

On the other hand, returns from forest management accrue when the tree is left standing but are only realized when the tree is harvested; many farmers may not be able to forego income and tie up land and other resources for so long. The relatively lengthy production period may also entail risk to the farmer in certain circumstances of land or tree tenure, or if future market conditions are liable to change adversely. Tree management may also involve periodic capital or labor inputs beyond what the small farmer can secure from his own resources.

The USDA-NRCS implements programs that offer cost-share for tree planting, timber stand improvement and related practices on non-industrial private forestland. The program is intended to ensure the nation's ability to meet future demand for sawtimber, pulpwood and quality hardwoods by placing more land under good forest management. Cost sharing for these measures helps eligible private landowners, whose small parcels represent the majority of the nation's forestlands. Forest

maintenance and reforestation provide numerous natural resource benefits, including reduced wind and soil erosion and enhanced water quality and wildlife habitat.

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