The Private Landowner's Stake in Tree Improvement

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INTRODUCTION

The term *private landowner,* as used in this paper, is a comparatively small landowner who has purchased and owns his land primarily as a means of making a livelihood for his family and himself. The private landowner must derive an income from this land in sufficient amount to justify its continued ownership.

A few years ago every farm throughout our area had a woodlot. Sometimes this woodlot was several miles from the main farm but it was essential that the farm have a source of wood. This wood was used for building and repairing farm buildings, fence posts, and fuel.

Farmers did a rather respectable job of managing these woodlots. With a variety of products needed, they eliminated the decadent and unwanted for fuel wood, thinned the overstocked for posts, etc.

Recently these woodlands have assumed an entirely different role. In most instances if the land is suitable for any other farm use, the timber has been rolled up by a bulldozer, burned, and the land used for growing a crop other than wood. Much of the timberland remaining on small farms is there because the land is unsuited for anything else. It may be used to control erosion and as a place for the cows to get in the shade and brush the flies off their backs. The farmer and/or small landowner finds that the lumber yard and prefab steel building dealer are the most satisfactory sources for his building needs.

ECONOMICS OF GROWING TIMBER

We are told today that we are growing more timber than we are harvesting. This is not true on many of the small, privately owned woodlands througout central Illinois. If we are interested in the cubic foot volume or number of tons instead of board foot volume, our loss of high-quality, log-type timber is not as apparent or important.

Nevertheless, until the demand is greater for the product from our woodlands or until the supply is shorter, it is difficult to justify the cost of woodland ownership. With the increasing demand for highways, utility rights-of-way, parks, subdivisions, factory sites, and sufficient food to serve the increasing population at home and abroad, I believe that the land available for growing timber will further dwindle.

These developments will make land values greater. Let us further assume that, along with our increased population, the per capita consumption of paper and other products derived from wood increases. With a demand for growing more wood on less acreage, the laws of demand and supply will react and the value of products of the woodland will be higher.

The returns from the woodland must be greater or the private landowner cannot justify ownership. Our forest crop must be able to return to the landowner sufficient income to give a fair return on his investment, as well as support the tax burden on this land. Sustained timber production will not survive under private ownership any other way. We must and will get more from forest products as public demand rises.

Those of you who have worked with the landowner on his woodlot or advised him on management practices must have experienced some embarrassing situations when asked what an individual tree is worth. Even further, determine the age and growth rate of a tree, project to maturity, assign today's values, discount to the age of establishment, and then tell the landowner that he should keep his land in timber.

Most of our woodlots are a pretty poor investment. An average acre of land now growing timber or available for growing timber will cost approximately $75 per acre. Taxes on this land are, on an average, $1.20 per acre per year. Let us assume that the value of the land will remain constant

throughout a rotation of 60 years. Further assume that an interest rate of 6 percent would be fair. Six percent compound interest on a $75 initial investment at the end of 60 years would amount to $2399.28. Assuming taxes will remain constant for the rotation period of 60 years and using the same rate of interest, we have a figure of $639.84. Adding these two figures, we have $3039.12 as a minimum return on the investment.

We made no allowance for planting; we assumed Mother Nature will provide this. We disregarded costs of fencing, firebreaks, insect and disease control, management work, etc. How many of our present small woodlots yield a stumpage value in excess of $3000?

How many landowners are planting trees because it is a profitable crop? Exclude those planting for Christmas trees and how many do you have? Our nurseries are supplying millions of trees to meet the demand. Where are these trees being planted? How many survive?

Why do landowners plant these trees? Many are planting because they have been told that it is the thing to do—a small acreage in the corner of the farm not suitable for other crops, for water or wind erosion, because trees are beautiful, we need trees around the farm pond, a windbreak, or for no other reason than to be eligible for some ACP payment.

Admittedly, we have a few stands of desirable species which are of sufficient size and quality to justify their continued economic existence. Most of these areas are on terrain which is inaccessible to the point that the harvesting cost is extremely high. Is this the type of land that forestry is destined to use in the future? I hope not.

MULTIPLE USE CONCEPT

The multiple use concept is realistic and practical for the private landowner. Our wooded areas are needed for hunting, picnicking, fishing, hiking, horseback riding, etc. Our management practices in many areas should be geared to work compatibly with this multiple use need. The trees which we plant or recommend for planting should fit into this concept. From my experience, the private landowner is more cooperative and receptive to the multiple use concept than most of the government agencies which own or control land with one specific use in mind.

Our personal experience in timber management has evolved around multiple use lands. Duck hunting clubs own the land and we tailor our management and harvesting methods so they will not interfere with the owners' prime reason for owning and paying the taxes on the land. These areas are for the most part located on the river side of large government levees and are subject to overflow. Most of these tracts contain several hundred acres and are consistent in ownership. Taxes are high because local governments believe that the hunter can afford it. We have instances where cleared farm land pays less taxes than swamp land immediately across the levee.

Most of these areas will support the more rapid growing bottomland hardwood species such as cottonwood, silver maple, and black willow. We operate these areas on an 8 to 10-year cutting cycle. We are now on our second cycle and I can see the third cycle from the stems we are now leaving. I am not sure where we will go from there. We have been working primarily with existing stems and are not getting the reproduction desirable.

Clear cutting where the market warrants has much merit in this management operation. Last week I had the opportunity of seeing what Gordon White of Consolidated Packaging Corporation is doing with cottonwood. He is experiencing costs that a higher yield and shorter rotation will have to justify. Results of these experiments will be the tools needed to sell the private landowner.

FERTILIZATION, CULTIVATION, AND MECHANIZATION

Guidelines for fertilization are needed. I have always operated under the theory that a tree is not demanding when it comes to soil nutrients—that nearly all soils contain adequate amounts to support tree growth and that the physical properties (well-drained, exposure, etc.) are much more important. I am sure that this pat answer needs to be changed.

The maximum amount of fiber per acre will come from trees grown on corn land, planted like corn, fertilized like corn, irrigated like corn, and harvested with machinery similar to that used to harvest silage. This crop will be on a 4 to 8-year rotation instead of a 40 to 80-year rotation. Our tree for tomorrow must be a tree which will fit into and respond to this intensive management.

CONCLUSIONS

I believe that the private landowner cannot afford to grow timber on his land today until the products of the woodlands have more net value for the landowner. The production of trees will be on only those areas where no other demand has been made.

The private landowner has a stake in tree improvement. However, I do not believe that he will

take the initiative to improve his cause. As mentioned earlier, there will be an increasing demand for land for other uses. Putting land to its best use will vary from area to area. Areas where wood-using industries prevail must be concerned with a continued source of raw material.

The multiple use concept must be recognized by all people owning, managing, and using land. If the forester does not recognize and promote this concept, he may be on the outside looking in. Trees from parks, boulevards, wilderness areas, etc. deserve a better fate than to become decadent and be destroyed.

We are in the midst of change. There are shortages of woods workers, forcing shortages of raw material and necessitating new labor-saving machinery which is conducive to uniform terrain. Such terrain is different from that on which much of our timber is now growing in the Midwest. Foresters have a big role in determining what trees we will be growing in this region in the future and on what kinds of land.