

A DOZEN RECOMMENDATIONS FOR MANAGING

HARDWOOD FORESTS PROFITABLY¹

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ABSTRACT. Many landowners don't manage their central hardwood forests. In many cases they may be missing out on opportunities to improve their woodlands and increase earnings. Each hardwood forest and each landowner's goals are different, so specific recommendations are not possible for all cases. General guidelines are given for planning management practices, reducing costs, and increasing revenues to increase profits.

INTRODUCTION

Money doesn't grow on trees, but many landowners profit by careful management of their hardwood timberlands. They want to get the most from their land without paying too much and without sacrificing the amenities or non-timber benefits. Landowners who manage their stands have more productive and profitable forests. These landowners often have certain things in common, and I would like to focus on some general management practices that lead to greater profits from hardwood forests.

Management recommendations cannot be made which apply to all hardwood forests. Each stand is uniquely composed of trees of different species, ages, and sizes, and each landowner has different goals. Some landowners are interested in abundant wildlife. Some want an attractive forest for personal enjoyment. Others want the highest cash return from their timber. Most landowners want some of each of these. Recommendations for specific treatments must be based on actual stand conditions, strengths of local timber markets, and landowner objectives. Therefore, management activities appropriate for one landowner's stands may be off-base for another.

The following 12 recommendations deal with several aspects of economic forest

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management--professional forestry assistance, stand cultural treatments, harvesting and regeneration, and financial planning. When combined with professional forestry advice and sound judgment, these recommendations will help hardwood forest landowners increase their profits.

Recommendation 1. Seek the assistance of a forester for planning forest management.

Mixed hardwoods forests are complex and many biological and physical factors affect their growth and value. Managing these forests requires special skill to achieve timber and non-timber goals. These forests are more difficult to manage than even-aged pine plantations because they may contain dozens of different species. Decisions regarding harvests, regeneration, and stand cultural practices should be made with the help of a skilled forester. All landowners have good intentions for their forest land, but they may miss out on benefits or profit because they overlook treatments that can improve their stands or perform treatments that degrade them and lower profits. Foresters can identify and recommend practices that will enhance and protect forest land and improve productivity.

Technical forestry assistance is available from various public and private foresters. Service foresters, extension foresters, State forestry agencies, and university forestry departments can provide help with many forest management problems for free or at cost. However, the services offered by public foresters may be restricted to 1 or 2 days of work a year on each property. Also, most public foresters cannot mark or sell timber, supervise timber sales, or enter into a fiduciary relationship with private landowners. Generally landowners are referred to consulting foresters for more extensive services.

Consulting foresters provide more diverse and specialized services than public foresters. Most consultants can inventory timber, prepare management plans, recommend treatments to meet landowner objectives, sell timber, contract for and supervise silvicultural services, and provide specialized income and estate tax advice. State forestry offices can provide a list of consulting foresters and the services they offer. Some States have registration or licensing laws for consulting foresters, which provide some assurance that foresters meet specified standards.

Many forest products companies have special Landowner Assistance Programs run by company foresters. These programs are aimed at improving management of private timberlands and enhancing relationships between the company and landowners. They provide a valuable source of forest management services to private landowners, but some companies may ask for a first refusal right to purchase timber grown on enrolled acres.

Selecting a forester is much like selecting any other professional. Consultants act as agents, and landowners must have confidence in their reputation and ability. Foresters should be able to provide the full range of services needed. They should be ethical in representing landowner interests and be technically qualified to apply scientific principles of forestry to accomplish management objectives. Consulting foresters should know their clients' management objectives and help achieve them, whether landowner goals emphasize timber production or other forest outputs.

Recommendation 2. Concentrate timber management efforts and dollars on the most productive sites.

Timber production has the highest returns on the best sites -- where trees grow fastest and quality logs are produced in the shortest time. Financial returns are higher on productive sites than on less productive ones because forest management practices cost nearly the same on both types of sites.

The best sites can grow at least a cord of wood or about 200 to 500 board feet of quality sawtimber a year in well-stocked hardwood stands. This translates into average annual earnings of \$15 to \$50 per acre or more these days, depending on volume, species, and quality of the trees. The faster growth rates on highly productive sites offer earlier and more frequent harvests and shorter rotations. Much potential income is lost if these stands are not managed to focus growth on the best and proper number of crop trees.

All forested acres should not be managed the same. Many treatments on highly productive sites are not economical on less productive acres, largely due to slower tree growth rates. Soil productivity can be highly variable on timber stands as small as 30 to 40 acres. So, careful

measurements of productivity are important in deciding how to manage stands, when to manage them, and where. Highly productive sites grow timber faster than other sites, and more intensive timber management is appropriate on these acres.

Recommendation 3. Manage hardwood forests to produce high quality saw logs of high value species.

Higher timber quality means greater value, especially for hardwood trees. High-quality trees contain sound clear logs without knots, splits, rotten portions, scars, or other defects. The species mixture in a forest also greatly affects value. Central hardwood forests contain many species, but only a few are really valuable. High-quality oak, ash, walnut, and cherry logs are in the greatest demand and have the highest market values. The best trees of these species may be worth five to ten times more than average logs of less preferred species.

Timber quality can be managed in several ways. The key is to maintain the most desirable species mixture and control stand density to assure good growth rates. Stands should be managed to maintain the proper number of high-quality crop trees of the most valuable species to maximize profits. Understocked stands are less profitable because some growing space is unproductive. Tree growth will increase in these stands with time, but there are few options for increasing productivity.

Overstocked stands are less profitable too because undesirable trees compete with crop trees and slow growth. These stands need to be cut to harvest mature trees, remove competing trees, and provide adequate growing space to allow crop trees to flourish. Eliminate trees that are financially mature or that interfere with the growth of crop trees. Cutting strategies must maintain the proper stand density for quality and growth.

Keep the best quality, but immature, crop trees of preferred species in the stand when partially cutting stands. Select large diameter trees that are financially mature for harvest. The diameter of financially mature trees may be 16 inches or more, depending on species and markets. Rarely are high-quality central hardwood trees financially ready to cut at smaller diameters. High-quality hardwood trees gain the most in value as they mature into larger diameter classes and higher sawtimber grades. Therefore, avoid the temptation to cut trees when they reach the minimum sawtimber diameter of about 12 inches. Trees usually are growing the fastest in value at this time. Harvesting these financially immature trees is costly in forgone revenues.

Never cut the best trees and leave the worst. This destructive practice, called high grading, is common and an assured way of producing timber stands full of low-quality trees of undesirable species. Sometimes this practice is

called diameter limit cutting in which loggers cut all merchantable trees above a certain diameter. The problem is that the most valuable trees above that diameter are cut and all the least valuable ones are left. The eventual result is a forest full of low-value, low-quality trees with greatly reduced earning potential.

Crop trees must be protected from logging damage. Damage to residual trees from careless logging can also destroy the quality of future crop trees. So, select loggers carefully. Only accept those with a good record, and be sure to monitor logging progress to prevent damage to the site and the residual trees. A lot of money can be lost when a high-value tree is scarred by logs being dragged behind a skidder. A professional forester can be invaluable in helping to select a reputable logger and supervise logging operations.

Optimum cutting strategies depend on many factors, and there are no simple rules. Adequate timber cutting prescriptions require an examination of each stand by a forester. Many decisions are needed -- how often to harvest, how many trees to remove, and which trees to cut. The best management recommendations will differ because timber stands differ. Most landowners often do not have the technical background to make cutting decisions. Loggers usually have an economic incentive to cut the most profitable trees - for them, but they usually do not have the landowner's financial interests in mind. So, it takes much experience to select the best cutting strategy.

Recommendation 4. Manage hardwood stands to increase growth rates and stand value.

Forest owners often believe that forests can pretty much take care of themselves. This may be true to a degree: forests continue to grow year in and year out, even through market cycles. Trees get larger, some die, and new seedlings start without any real assistance. But, left to grow without attention, few forests ever achieve their full economic potential. Most central hardwood forests can produce more timber and wildlife, and much can be achieved with carefully planned intermediate cuts, final harvests, and other improvements.

Many of the ways landowners can manage their hardwood stands involve cutting, removing, or killing trees and other vegetation. Cutting undesirable trees is necessary to focus growth on crop trees. In addition, new sprouts or seedlings needed to regenerate new stands are encouraged by removing unwanted overstory competition. In partial cuts, only carefully selected trees are removed. Complete harvesting is essential to start a new vigorous forest of the high-value central hardwood species that require full sunlight for establishment and growth. Complete harvesting is often needed to rehabilitate stands that have been neglected or abused by destructive harvesting in the past.

The relationship between regeneration and harvesting merits special attention. Harvested trees and trees with little value must be replaced with desirable species suited to the site to improve productivity. Careful planning for regeneration is needed before cutting. How much canopy to remove, which trees to cut, when to harvest, and many other factors can make the difference between successful regeneration and poor stocking or low-value trees. Regeneration is so critical to profitable management that it must be considered a primary goal of harvesting.

Mixed hardwood stands may need some attention every 5 to 15 years. In some cases, noncommercial treatments such as cleaning to kill or remove undesirable trees may be necessary. Each management action can be thought of as a mid-course correction. Missing needed treatments may be costly because the resulting future stand may be far less valuable. Missing treatments can delay stand development, postpone harvests of mature timber, and allow undesirable trees to prosper.

Noncommercial thinnings or cleanings should improve the stand enough to justify their cost. Some benefits may be from increased future timber values, but other non-timber benefits are certainly valuable too and should be considered when planning management treatments. Recently cut timber stands may appear unsightly, but they regain their appearance quickly if the harvesting operation was well planned.

Active stand management may suggest a goal of timber production to some, but even many treatments to enhance wildlife habitat involve some form of harvests. Brush or slash may be pushed into piles to provide wildlife shelter. Small openings are especially valuable to some species for the type of food and forage produced in them. Such openings can serve as places to concentrate and harvest game. Openings can also be planted to preferred wildlife food crops to favor particular species. Although many landowners believe timber cutting reduces wildlife, many species use clearcuts or young forests extensively for food or breeding.

Recommendation 5. Manage wildlife values for additional sources of income.

Many landowners seek non-timber benefits from their hardwood forests, particularly wildlife and recreation. Most activities to enhance wildlife involve vegetation management such as planting game foods, cutting immature trees, and harvesting mature trees. Final harvests and improvement cuts can be planned to improve wildlife habitat as well. Timber and wildlife are often viewed as conflicting goals, but many stands can be managed to produce more of both.

Hunting leases are becoming more common throughout the United States, and this source of income should not be overlooked as a way to

supplement earnings. The market for hunting leases is growing rapidly, but it is not well organized at this time. Annual fees paid for prime hunting locations are often set at the landowner's cost for property taxes. In time, prices may rise and be set through competition. Many hunters prefer leased land because it is less crowded, is generally safer, and may offer greater chances of success than other land. Hunting leases usually require larger tracts, but several landowners can combine their forest holdings to offer a single lease to hunting clubs or selected groups. The added income can be used in part to enhance wildlife populations, eventually leading to higher lease rates for the improved habitat.

Hunting leases are emerging as a growing competitive market in many areas, but they may not be for every landowner. Landowners wanting to lease their property should get professional forestry advice and have a clear contract to limit their liability.

Recommendation 6. Promptly salvage damaged timber to minimize losses, recover value, and improve stands.

Hardwood forests can be damaged by many natural hazards including fire, storms, ice, drought, insects, and diseases. Logging damage to residual trees is also a common cause of financial loss. Hardwood stands need adequate protection and treatments to reduce losses when they are damaged. Forest stands affected by natural events are not usually destroyed completely. Rather, growth and quality are reduced when individual trees or groups are killed, broken, scarred, attacked, or infected. Owners lose the value in destroyed trees and in future growth and quality from damaged trees.

Some management decision must be made when such damaging events occur. Many landowners do nothing to recover salvageable timber or to limit future financial losses. The basic management choices are to (1) leave the stand alone, (2) salvage and continue to grow the stand, or (3) harvest all trees, start over, and regenerate. Many factors such as landowner objectives, stand value and extent of damage, local markets, and the stand's ability to recover from damage, influence the decision after a loss. From a purely financial perspective, the best choice is to select the option that offers the greatest future value and to ignore the past or sunk costs that can never be recovered.

Salvage should always be considered after a loss. Sometimes not enough timber volume is affected to allow a commercial harvest. In this case, improvement cutting can be combined with salvage of damaged timber to enhance future stand values. Damaged trees that are left to grow take up growing space but may never increase in value. Unless harvested quickly, damaged timber may be attacked by insects and diseases that render it useless. If the damage is extensive and markets

are strong, the best action may be to harvest all or most of the stand and regenerate. Even if no market is available for damaged timber, removal of the damaged trees for firewood may be needed to maintain a healthy and productive stand.

There are important income tax considerations when timber is damaged. Timber damage can qualify as a casualty loss for income tax purposes if the damage is sudden and unexpected. Fires; extreme weather such as tornados, ice, floods or drought; and some insects may qualify. The amount of casualty loss for income tax purposes is limited to approximately the initial timber investment, not the market value at the time of the loss. Unfortunately, this value is usually very low or zero for most natural hardwood stands. If this is the case, even completely destroyed stands may not qualify for any tax deduction under current tax provisions.

Recommendation 7. Design timber harvests to favor prompt regeneration of desirable species.

Many landowners cut timber but fail to adequately regenerate their land following harvest. They never plan for the next forest and count on nature to provide a new stand from whatever is left. A new forest will eventually regrow on most cut-over land, but the new stand will usually be far less valuable and productive than could be achieved otherwise. Usually, the next stand grows from the least desirable unmerchantable trees left on the site rather than from the best genetic stock. Failing to regenerate timberland after harvest will reduce long-term productivity.

Landowners sacrifice much future income when they allow harvested acres to remain idle and unmanaged. The goal of regeneration is to get enough new trees of the most desirable species. A large share of potential profits depends on regeneration success. Harvested hardwood stands are usually regenerated from seed or sprouts or from seedlings already in the stand. Shelterwood harvesting may be needed in several stages to establish an advance crop of seedlings before the complete overstory is cut. This is particularly true for oak. Desirable species can be encouraged by controlling how much canopy is removed and which trees are cut, by preparing the seedbed, and by killing unwanted trees before or after the harvest.

The best regeneration results are achieved by planning for the next stand before any trees are cut. Cost savings, more effective control of stocking and species mixtures, and more complete utilization can be achieved by coordinating harvesting and regeneration. Rather than leaving regeneration to chance, experienced foresters can guide each stand to produce a more productive new forest.

Hardwood regeneration is not always costly in dollar terms, but it does take time and special

skill to get the desired results. Many things can inhibit successful regeneration such as competing understory vegetation, inadequate nutrients, light, or moisture, and insufficient site preparation. Stand improvement treatments may be needed before or after harvest, and these can add to the cost significantly. The least costly method of achieving adequate regeneration is to be sure harvesting creates the right conditions for tree growth. The benefit of successful regeneration is a much improved stand and eventually greater profits.

Many landowners believe small partial harvests every decade or two is the best method. But this method is not a good way to produce most of the high-value central hardwood species. These species must have full sunlight for establishment and development. Consequently, complete overstory removal is essential if species such as oak, ash, walnut, and cherry are to achieve their best potential.

Harvested stands can be planted, but this is a difficult and costly option. Planting may be the only way to establish desirable species not present because of past history and to introduce genetically superior trees. Planting hardwoods such as oak, ash, or walnut may require intensive site preparation to reduce understory competition. The costs of planting and tending hardwood plantations are high and the time until harvest is long. Therefore, these long-term forestry investments should only be considered on the very best sites.

Recommendation 8. Seek multiple buyers for timber and sell it by competitive bid if possible.

Timber is often sold directly by landowners without the benefit of competition or a timber appraisal. Also, landowners are often poorly informed about local timber markets, the volume of their trees, or the value of their stand. Many landowners lose a large share of their profits because they don't know much about timber markets and can't judge the fair market value of their timber. Then they sell below market value to buyers who do know the true value of their timber.

Timber sales offered competitively with sealed bids are a more consistent way to be sure that a timber sale earns the highest market price. Negotiated sales are sometimes necessary to salvage timber quickly or for other reasons. Even if this is needed, landowners should have a knowledgeable forester do the negotiating.

Another problem occurs frequently when timber is sold and harvested without professional forestry assistance. When given a free hand, loggers will cut what they can sell profitably and leave the unmerchantable trees. This can greatly increase the cost of regenerating the next stand, adversely affect future productivity, and mean less money for the landowner.

Recommendation 9. Use a harvesting contract when cutting timber to protect productivity and achieve management objectives.

The trees to be harvested and left must be carefully selected and controlled. Harvesting contracts clearly specify the trees to be cut, the type of harvesting allowed, the method of payment, and the time allowed for harvest. They are legal instruments to protect the landowner and convey title to the timber to be cut. Contracts may include provisions to protect forest roads and streams, to prevent or require cutting of certain trees, to cover slash disposal, and to permit or limit other activities associated with harvesting. Contracts usually outline the consequences of not meeting the contract provisions. In some cases, a performance bond or advance payment is required from the logger before cutting begins. Most reputable loggers are accustomed to operating with contracts, but many timber sales are not covered by one. When loggers can do whatever they want, landowners usually lose.

Sample harvesting contracts are available from many consulting foresters, public forestry offices, extension forestry groups, university forestry departments, and county cooperative extension offices. Model contracts must be modified to reflect each landowner's particular situation.

Recommendation 10. Use cost-sharing incentive programs when possible to reduce direct costs and increase productivity.

Forest management practices can be costly and returns are far in the future. Consequently, cost-sharing programs help non-industrial private landowners reduce economic risks. Most programs contribute part of the cost for selected treatments to improve the productivity of private forests. Use these programs when they can help accomplish forest management goals and reduce costs.

The Conservation Reserve Program (CRP) provides cost-share payments to establish trees on highly erodible croplands and fields, subject to scour erosion, and makes additional annual payments for 10 years. This is not long enough to grow a timber crop, but the cost savings create an excellent earnings potential. The CRP requires enrolled land to be removed from agricultural production for at least 10 years.

The Forestry Incentive Program (FIP) will pay landowners to establish trees or improve stands for timber. The Agricultural Conservation Program (ACP) pays for certain conservation practices, including some to improve woodlands. These programs are administered by the Agricultural Stabilization and Conservation Service in cooperation with the State forestry agencies. Some States also have special cost-sharing

programs to help pay for improvements to private forests. These public programs relieve at least some of the financial burdens of improving forests.

Recommendation 11. Carefully plan for the tax consequences of timberland income and assets.

Income, estate, and property taxes are complex and costly. Some landowners pay more taxes than necessary because they don't understand the tax regulations and don't plan their management activities to take advantage of provisions favorable to forestry.

The Tax Reform Act of 1986 greatly changed Federal income tax regulations for forestry. The most significant change was the elimination of preferential tax rates for capital gains. As a result, timber income is now taxed at a higher rate than before the law took effect.

The deductibility of certain forest management expenses was also changed by the 1986 law. As a result, landowners may not be able to deduct all expenses unless they meet certain criteria for active management of their land. The rules on deductions are complicated, but landowners who actively manage their land generally receive the most favorable deductions for management expenses.

The favorable reforestation tax credit and amortization provisions remain in effect. These provisions allow landowners to quickly recover their reforestation costs, up to \$10,000 per year.

Estate taxes affect timberland passed on to heirs. Many landowners have large and valuable timberland holdings that cannot be easily converted to the cash needed for estate taxes. In some cases, heirs have had to liquidate timber during weak market periods or when stands were not ready for harvest to settle estates. Landowner's objectives are not usually well served when they must cut timber, sell land, or divide forest holdings to pay estate taxes.

The need for unplanned and forced harvests can be reduced and timberland ownership can be preserved by effective estate planning. Many methods are available to reduce estate tax impacts and preserve timberlands and other assets for heirs. Get qualified tax and legal assistance to protect heirs from the unforeseen consequences of estate taxes on timberland values.

Property taxes, yield taxes, and severance taxes also affect timberland management by imposing costs each year and possibly at harvest. In some States, special provisions are available for reduced property taxes. To qualify, landowners may be required to follow an approved management plan or to allow public use of their land for hunting and recreation. Enrolling land under these special laws can reduce property taxes significantly. Check with your State forestry

office or a qualified forester to determine if timberland can qualify for these provisions.

The Federal and State tax laws are complex and difficult to interpret for each landowner's situation. The best recommendation is to seek the advice of qualified forestry tax experts to help select the most advantageous management actions. Tax workshops may be available to help timber owners understand the effects of taxes on profits.

Recommendation 12. Compare the financial performance of forest management activities with other investment options.

Many landowners believe that active forest management is not profitable, but this is not the general case. Many factors affect the income potential of managed forests. Some timberland investments pay competitive returns, especially for well-stocked managed timber stands on highly productive sites in strong market areas.

Forestry investments may be considered in several ways. Investments made now increase the future quantity and/or quality of timber or other forest outputs. With hardwood forests, the investment cost is often not a direct outlay. It is revenue lost from not cutting a stand and holding it to grow another year. Forest owners should reasonably expect that the benefits in a year will be equal to the current stand value plus at least as much as could be earned on that value in a bank (or some other investment). With investments, the benefits are always delayed and received some time in the future.

Achieving a profitable forest requires an investment perspective when making timber management decisions. Money spent to improve tree growth or earnings can't be spent on other things or invested elsewhere. So, timber investments must be able to earn a competitive return. This means that treatments that can't earn an acceptable profit should not be done, if profitability is a goal.

The concept of financial maturity is an important one, especially for hardwood forests. Trees should be harvested when they reach financial maturity, when the rate of value growth falls below the interest rate that could be earned in another investment. Foresters determine this by measuring recent growth rings and comparing the value increment with the total value of the tree. If trees are held to grow too long, then their rate of earnings falls below competitive rates. If they are cut too soon, then much potential value growth is sacrificed. Usually financial maturity is specified as "critical diameters" for a particular situation. The diameter of financially mature trees depends greatly on the species, local markets, site quality, and amount of competing timber, so no single number can suffice. Invariably, this economic diameter is larger than the minimum diameter or size of trees acceptable to loggers.

Forest landowners should especially consider intermediate stand treatments to improve the growth of pole timber or small sawtimber crop trees. Improvement and cleaning cuts to remove or kill competing low-quality trees will enhance the growth and vigor of remaining crop trees. Because these crop trees may already be close to harvest, the investment period is relatively short. The faster growth rate on the select trees will also allow an earlier harvest. If conditions are right, this low-cost investment can pay handsome returns. Timber stand improvement treatments are especially profitable when stands are overstocked and growth has slowed or where the best trees are being crowded out. Unfortunately, many landowners believe that spending money to improve their stands is wasteful, but in many cases they are wrong.

Of course, investment returns play only a small role in deciding how to manage hardwood stands. Landowners may want less income and more intangible forest benefits, but they often unknowingly lose out by not managing their stands effectively. In many cases, landowners can have more timber, more income, and more non-timber benefits simultaneously by actively managing their hardwood forest. They do not always need to embrace timber production as a primary goal.

SUMMARY

Owners of central hardwood forests want to get the most from their land and generate income without paying too much and without sacrificing the amenities or non-timber benefits. Twelve recommendations are offered to help these owners achieve greater profits in conjunction with their other goals. Profitable management of hardwood forests requires careful selection of treatments and planning of harvests.

The first recommendation points to the need for professional forestry assistance to help make the best management choices in diverse and complex hardwood stands.

Recommendation number 2 is to concentrate timber management efforts on the most productive sites where tree growth rates are the highest. This is where the greatest return on investment can be made.

The third recommendation recognizes that the greatest values in hardwood stands are found in the best quality trees of preferred species. Actions to develop, protect, and enhance the quality of the most valuable trees are essential.

The fourth recommendation points out that landowners must not overlook important opportunities to improve their forests. The

timing of harvests and noncommercial treatments is critical.

The fifth recommendation recognizes the potential for income from wildlife in hardwood stands. Profitable management can easily include treatments to enhance wildlife, and hunting leases are becoming an important source of income.

The need to promptly salvage damaged timber and make the best choices after a stand has been damaged is the sixth recommendation. Damaged hardwood forests need care to keep them highly productive.

The seventh recommendation calls for careful planning for regeneration in conjunction with harvests. Regeneration is critical to profits and always more successful if the right conditions are created when trees are cut.

The message in the eighth recommendation is that timber should be sold by competitive bid to get the highest price. Professional forestry assistance is especially important to help landowners realize the fair market value of their timber.

Hardwood trees are especially vulnerable to logging operations. So, the ninth recommendation calls for harvesting contracts to reduce the risks when cutting timber.

Management of hardwood stands can be costly. The 10th recommendation is to use available cost-sharing programs for financial assistance when possible to keep cash outlays to a minimum.

Some of the important costs of forest management operations are income, property, and estate taxes. Taxation of forestry operations is complicated and requires special advice. The 11th recommendation is to carefully plan for the special tax consequences of owning forestland.

Finally, the 12th recommendation is to consider the financial returns of specific forestry actions and compare them with other investment options. Too often landowners have little information on the return they can expect from managing their forest. Perhaps their choices would be different if they knew the payoffs.

Money doesn't grow on trees, but many landowners can profit by carefully managing their hardwood timberlands. Landowners who choose not to actively manage their forests may forego benefits and eventually reduce the attractiveness and productivity of their stands. In some cases, landowners may not realize how their forests can be improved or how some investments can add profits and improve other benefits. These recommendations are offered to help landowners better understand their opportunities.