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This parklike woodland shows no regeneration, because it is mowed.

Investing in Indiana Woodlands

Author
William L. Hoover, PhD
Professor of Forestry
Purdue University

Forestry & Natural Resources
PURDUE UNIVERSITY
www.fnr.purdue.edu

Introduction

Owners of woodlands are keepers of the forests' natural beauty not only for themselves, but for all viewers—at no cost to society. Walks in a family's woods can provide an emotional experience that's hard to duplicate. The property becomes part of the family, their place to enjoy each other and the natural environment. It becomes part of a lifestyle. Nonmonetary benefits are more than enough for many families to justify buying woodland or keeping inherited land. It is also, however, a real estate investment most owners expect will eventually provide a positive financial return.

A woodland's value is based on the value of the underlying land, the trees that may have value for wood products, and the price premium frequently associated with recreational and aesthetic attributes. Acquiring and maintaining a woodland also involves practical considerations.

This publication provides information for any family considering the purchase of a woodland, or any owner considering whether or not to dispose of one. It deals with the practical realities of real estate ownership, including benefits and costs expressed in monetary terms.

This publication also is for people who purchase and manage Indiana woodlands as investments, and for people interested in outright ownership by holding **fee simple title**. It assumes that regardless of a buyer's primary reason for wanting to own woodland, financial aspects are important. Ideally, a woodland can be managed for the desired nonmonetary benefits and additionally provide a competitive financial return over the life of the investment. However, this publication does not cover the acquisition of crop or pasture land for the establishment of timber stands by planting seedlings or direct seeding. The 40 or more years required to grow merchantable trees requires a different type of analysis. Plantation investments are discussed in *Financial and Tax Aspects of Tree Planting*, FNR-214, http://www.extension.purdue.edu/extmedia/FNR/FNR-214.pdf—part of a series

of publications dealing with the planting and care of fine hardwood seedlings that can be found at, https://ag.purdue.edu/fnr/Extension/Pages/publications.aspx.

Technical terms used by foresters, bankers, and investment advisors are defined in the glossary at the end of this publication. You can find more detailed information on the Internet.

Investment in Woodlands or Timberlands: History and Trends

Woodlands, a term used in the Central states, refers to wooded tracts, also called woodlots. These tracts typically cover 10 to 50 acres. A U.S. Forest Service sample of Indiana families who own woodlands indicates that tracts that are part of farms are 50 acres or more (Figure 1). Other tracts are owned by individuals for many different reasons. Whatever the reason for investment, this type of woodland ownership requires active management.

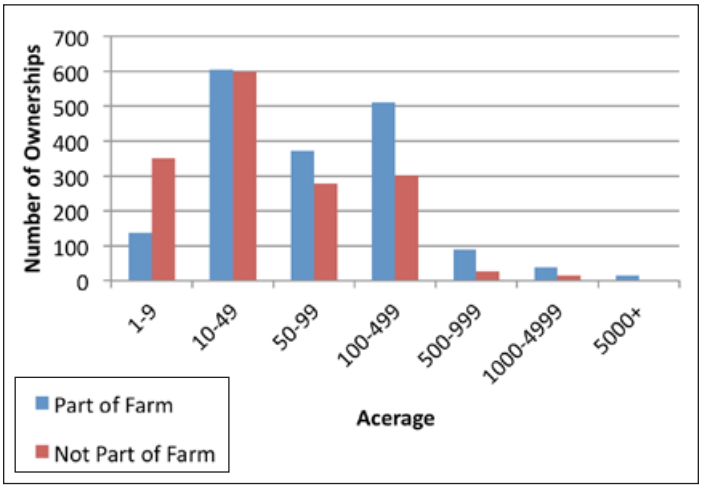

Figure 1. Distribution of family woodland tracts by size and ownership as part of a farm. (U.S. Forest Service, Forest Inventory Analysis, Woodland Owner Survey, http://www.fia.fs.fed.us/nwos/ accessed 6/25/2013)

If you are seeking a hands-off investment in timberland, there are other options. Timberland refers to larger ownerships such as the Hoosier National Forest and large holdings of corporations, partnerships, and real estate investment trusts (REIT). Options include publically traded REITs, private equity firms called timber investment management organizations (TIMOs), and timberland you purchase using the services of a consulting firm specializing in working with private investors in the acquisition and management of large tracts. Your investment advisor can help you identify options.

Until the 1980s, the largest private owners of timberland in the United States were vertically integrated forest products companies such as International Paper and Weyerhaeuser. Their timberland provided a secure source for a portion of the raw material needed for their converting plants. Starting in the early 1980s, Wall Street analysts demonstrated that the stock of these firms was undervalued because of the **unrealized capital value** of their timberland. This led to pressure from stockholders and investment managers for these firms to either liquidate land or break it into separate timberland enterprises. As a result, millions of acres of timberland came on the market. Because of the size of these holdings, they were attractive to institutional investors such as life insurance companies. In addition, timberland investment companies were formed to purchase these lands for **pooled investors**. A major selling point for individual investors was the long record of **real price** increases for timber, a degree of countercyclical business activity, and relatively low physical and financial risk. These are desirable characteristics for portfolio diversification.

These trends had little, if any, effect in Indiana because of the lack of large industrial holdings to be divested, the dominance of scattered small tracts, the difficulty of capturing economies of scale in the management of small scattered tracts, and woodland prices based on factors other than financial returns from timber production. The attention paid by the investment community to timberland did, however, increase interest of Indiana investors in woodland.

Currently, acquisitions are possible on the general real estate market, directly from sellers, through purchases of farms with woodland, and through the occasional liquidation of larger ownerships. Real estate brokers dealing primarily with farmland should be considered, especially if they are associated with the American Society of Farm Managers and Rural Appraisers, http://www.asfmra.org/. Auctions of farms are typically conducted by breaking the land into individual sale units. "Woodland" is usually one of these units.

Description of Indiana Woodlands

There are 4.83 million acres of woodland in Indiana, 4.05 million privately owned. All but 166,159 acres are natural stands (i.e., not artificially regenerated by planting or seeding). Seventy-five percent of woodland contains medium or greater **tree stocking**. Full stocking is when the number and size of trees fully occupy the biological potential of the land.

The dominant Indiana species mix is oak/hickory, covering 2.9 million acres. The next largest mix is elm/ash/cottonwood at 0.55 million acres, followed by maple/beech/birch at 0.31 million acres. Species mixes are shifting to maple/beech/birch, because the **selective harvesting** commonly used favors shade-tolerant species such as hard maple. Indiana's forests are maturing, indicated by the average diameter and age of trees. Fifty-four percent of the trees in oak/hickory forests are at least 60 years of age, and 73 percent are at least 15 inches **diameter breast height** (DBH).

Woodland in northern Indiana typically consists of scattered woodlots, frequently parts of farms, and tracts adjacent to waterways, lakes, and reservoirs (Figure 2). There is very little publicly owned woodland in northern Indiana. South Central Indiana is the most heavily forested region (Figure 3). This region is unglaciated, resulting in ridge-and-valley topography. The ridges and side-slopes are forested. The valley bottoms are typically in an agricultural use, including small crop fields and pastures. The southeastern and southwestern landscapes are similar to northern Indiana, but with a more rugged terrain.

Figure 2. Typical landscape of northern Indiana with scattered woodlots and contiguous tracts of woodland adjacent to waterways, lakes, and reservoirs. (Google Earth, accessed 6/25/2013)

Figure 3. Typical landscape of South Central Indiana showing woodlands on the ridges and slopes, and agricultural land and homesteads in valleys. (Google Earth, accessed 6/25/2013)

Description of Indiana Woodland Owners

A typical woodland is 21 acres and is owned by a family with at least one owner who is 62 years of age. A typical owner either leaves a forest unmanaged or does just enough to protect it and cut firewood for personal use. Fifty percent of the woodlands are held by an estimated 66,000 owners as parts of farms, but not necessarily by farmers, since over 50 percent of farmland is farmed not by the landowner, but by others, generally operators who rent the land.

Ownership Objectives

U.S. Forest Service surveys of family owners of Indiana woodland estimated that less than 15 percent own woodland primarily for the production and sale of timber, and this required a harvest. Eighty-five percent of families owned it primarily to enjoy beauty and scenery. Current owners' lack of interest in their timber as a source of income may provide opportunities for buyers to purchase woodland at less than fair market value. It's more likely, however, that family forest owners realize timber is a valuable asset, and, in fact, tend to overestimate its market value.

An advantage of woodland ownership is that few common ownership objectives conflict with retaining well stocked stands of timber. An exception would be the wish to attract a wide variety of wildlife species, which requires a mix of vegetative types—not just timber stands. The habitat required for various species of wildlife is discussed on the *Everything Wildlife* website, http://www.agriculture.purdue.edu/fnr/wildlife/.

Investors seeking annual cash flow should consider purchasing tracts with a mix of habitat types, including grass, **scrubland**, wetland, and cutover forestland. Such tracts are more attractive to hunters looking for land to rent for exclusive hunting rights. Many landowners favor this option, because in addition to the rental income, the hunter helps control who comes onto the property and provides the owner with feedback on the condition of the land. In addition, controlling the deer population reduces damage to trees and other vegetation from browsing. Several companies are in the business of matching hunters with landowners. These can be located by entering "hunting leases in Indiana" into a search engine.

An old field with a variety of vegetation provides excellent cover and food for a variety of wildlife species, including game birds.

Timber Productivity

As with crops, financial returns are determined by productivity and unit value of each crop. The productivity of a woodland is most easily measured by annual growth in **board feet** per acre per year (bf/A/yr), referred to as **mean annual increment** (MAI). MAI for well-stocked stands ranges from 150 to 350 board feet per acre per year. Woodland purchased as a timber investment should have an MAI of at least 200. It is necessary to contract with a professional forester to get a reliable estimate of MAI. This also should be done for any woodland you already own or tracts you are considering for purchase.

The value of timber is measured in dollars per thousand board feet ($/MBF). The value of trees as they stand in a forest is stumpage value, or value on the stump. Low-quality timber purchased for processing into lumber for pallets or other industrial uses may be worth as little as $50/MBF. The highest value trees are purchased to be sliced into thin veneer. Stumpage values for these rare trees can be as high as $10,000/MBF. These are usually black walnut. Other species in demand for veneer include white oak, red oak, hard maple, and black cherry. Species preferences change frequently in response to domestic and overseas markets. Note that there are so few of these trees that their value alone is not relevant to estimates of value increments per acre per year.

Combining MAI and stumpage prices provides an estimate of value increment. At the low end would be 150 bf/A/yr and $50/MBF giving a value increment of $7.50 per acre per year. A reasonable high end would be 350 bf/A/yr and $1,000 per MBF, yielding a value increment of $350/A/yr. Such a wide range necessitates professional evaluations for the development of reasonable estimates for individual tracts.

Woodland Value

Woodland values, like land values generally, are closely tied to location. The value of timber is less location dependent, because there are good markets for timber throughout the state. Timber buyers' interest varies, however, by location within the state. This results from regional differences in how land was used in the past, variation in the color of the wood within a tree, soil fertility, and unknown factors. Regions in which woodland grazing was a common practice generally produce lower quality timber. For most hardwood species, trees that are vigorous and healthy are the most valuable.

The financial return from woodland held for timber production is determined by the purchase price; volume and value of merchantable timber at time of purchase;

species mix; quality of the land for growing timber, referred to as **site index**; and expected market trends for hardwood timber. Timber value increases with increases in volume; increases in value per MBF as trees get bigger and become saleable as high quality sawlogs or veneer logs; and extent to which unit prices keep pace with inflation.

The major economic considerations are the demand for stumpage and resulting price trends. As a nonfungible commodity, well-managed timber can be held until markets are favorable. This supply-side factor accounts in part for short-term variations in prices, but not long cycles. Long-run trends for real prices are a critical consideration if woodland is purchased as an inflation hedge based on the timber as well as the land. A commonly used measure of price trends for Indiana timber is the Indiana Timber Price Index for average and quality stands (Figure 4). This is a weighted average of prices paid for logs delivered to mills in Indiana starting in 1957. In addition to species mix, these averages consider the quality of sawlogs, and the quality and size of veneer logs. The indexes cannot be used for valuation of timber. The index can be converted to stumpage value by subtracting the cost of logging and hauling. These are highly variable within the $140 to $300 per MBF range. Price reports with current value of the indexes are available at https://ag.purdue.edu/fnr/Extension/Pages/timberMarket.aspx.

Indiana led the nation in hardwood lumber production at the turn of the twentieth century because of the readily available stands of large timber, westward movement of the population center, and the need to clear land for agriculture. As a result, Indiana's forests were almost cutover by the end of the first decade with little landowner concern for regenerating those areas not cleared for agriculture. Thereafter, harvesting and lumber production declined. However, the remaining patches of cutover forests regenerated naturally and volume increased. Hardwood lumber and veneer production increased in proportion to the increase in the area of woodlands and timber volume. By the early 1970s, harvesting and processing increased sufficiently to drive up timber prices in real terms. This trend continued until about 2005. At this point the real cost of logs, the largest cost component of lumber production, had increased sufficiently to severely reduce sawmill **operating margins**. The added pressure of the recession starting in 2008 drove many marginal mills out of business and made it possible for larger, well-managed mills to expand and capture a larger share of a smaller market. The decreased demand for lumber and veneer was also due to competition from species grown in other countries and the growth of wood processing in Asian countries.

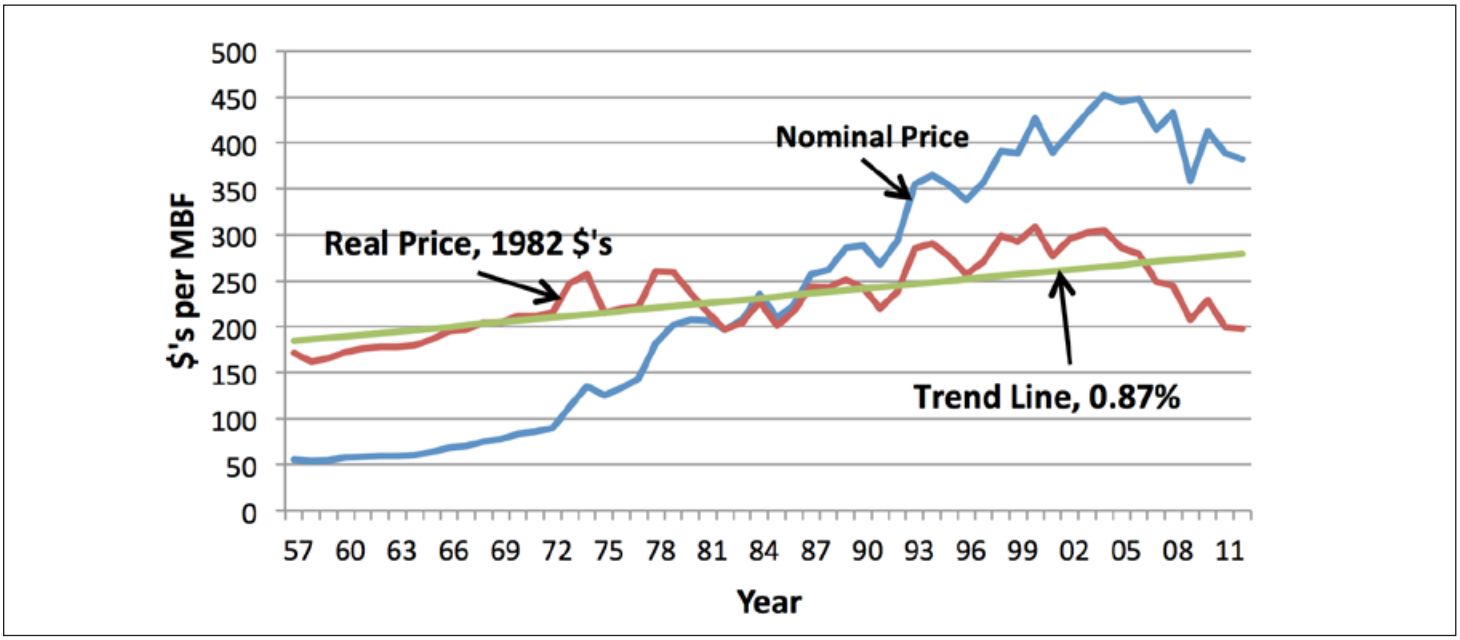

Figure 4. Nominal and real value of logs for the average stand of timber in Indiana. (*Indiana Forest Products Price Report and Trend Analysis,* 2013, Purdue Cooperative Extension Service, FNR-177-W, available online at https://mdc.itap.purdue.edu/item.asp?Item_Number=FNR-177-W)

Although the real price of timber is currently cycling down, there is a strong demand, especially for high-quality timber. The high-quality timber grown in the Central United States is unique and respected by buyers from all over the world. The downward pressure on timber prices will continue until **timber processing margins** increase sufficiently to cover higher log costs. It is not possible to predict when this will occur.

Financing Options

Depending on interest rates, borrowing to purchase a woodland can reduce the amount of money tied up for 20 to 30 years. Options for financing a woodland to be held as a long-term investment are limited. Borrowing opportunities for farmland are not available, because woodland alone is not classified as farmland. Woodland incidental to a farm would, however, be incorporated into the farm purchase.

Most commercial banks in Indiana do not have loan officers sufficiently knowledgeable about woodland values and returns from timber production to evaluate loan applications. Knowledge of the terms used in timber management, what constitutes investment grade timber stands, and timber values is needed. They may, however, provide partial financing based on just the value of the land. For example, a bank in southern Indiana, on rare occasion, makes loans on "raw woodland" with a maximum 15-year term. The loans must pay down the principal over the life of the loan according to a set schedule, a so-called amortizing loan. The amount outstanding cannot exceed 65 percent of the fair market value of the property. If the loan officer at this bank knows that the buyer is going to harvest the timber on the property, the officer requires a third party appraisal of the timber. A separate loan is issued for this value. The length is the expected timeframe to harvest the timber. The timber income pays off this loan.

Financing available through Farm Credit Mid-America for lot loans is the most frequently used financing option by families buying woodland for use as a home site in rural areas. Farm Credit Mid-America is part of the Farm Credit System, a nationwide network of borrower-owned lending institutions (i.e., a cooperative association). Borrowers become the equivalent of stockholders in the system. The amount borrowed cannot exceed 75 percent of the lesser of either the purchase price or appraised value. This means a 25 percent down payment is required, and borrowed funds cannot be used for it. There is no limit on the size of lot and no time requirement on when a house is constructed. Loan terms cannot exceed 25 years. Rates are several points higher than those for home loans.

Seller financing in the form of a land contract, also referred to as a "contract for deed" or "land installment contract" is a rare possibility. The seller retains title to the property until the loan is completely paid off. If the buyer defaults, there is no equity to recover. A well-crafted contract that protects the interests of the seller and buyer is especially critical. Sellers and buyers need to think through the answers to many questions. Does the principal include the value of the timber, or is timber value retained by the seller? If the latter, the seller usually retains all rights to timber sale income. If the initial value of the timber is included in the principal, does the seller receive the income to be applied to the principal? There are many possible options to be negotiated.

Even if a cash purchase is made, a complete title search should, of course, be made. Contracts for the sale of timber sometimes give the buyer up to three years to harvest the timber and remove the logs. If a woodland is purchased after the timber is sold, but before it is harvested, the buyer can sometimes be fooled. There is no requirement that timber sale contracts be registered in the county courthouse against the title to the woodland. Thus, they would not show up in a title search. Legal counsel should be consulted to determine the exact language to include in the contract regarding any timber on the property.

Tax Considerations

Investments in woodlands do not constitute tax shelters either from the IRS's standpoint or based on the techniques available to deduct more than your out-of-pocket expenses. The amount paid for the woodland, if purchased, or its date-of-death fair market value, if inherited, is its basis. The basis is used to determine the gain or loss when the property is disposed of. If timber will be sold and you want to reduce the revenue by the depletion allowance for the timber, separate bases in land and timber must be established. Gains from the sale of standing timber always qualify for capital gains treatment, providing a favorable tax rate under current law. Property taxes are deductible as an itemized deduction. In those uncommon situations when the woodland activity constitutes a business, management expenses may be deductible. The deductibility of expenses other than those for qualified tree planting and property taxes requires that the owner intends to and has a reasonable expectation of eventually making a profit. Income used to determine profit for purposes of the hobby loss rule is defined to include the increase in the value of the land and timber. Detailed information on all tax aspects of owning a woodland is available at http://www.timbertax.org.

Regulatory Climate

Historically, local, state, and federal regulations placed few restrictions on the growing and harvesting of timber in Indiana. The most common is the use of gravel roads by heavy logging trucks in early spring when the roads thaw—the so-called break-up period. Some local jurisdictions require road-use permits to control truck weights and mud deposited by trucks exiting logging sites onto county roads. Any timber buyer or logger you work with will be familiar with these requirements.

The use of herbicides and insecticides requires compliance with label directions. The use of some pesticides requires formal training and certification by passing an examination.

The effect of timber harvesting on water quality is also a concern. Permits are required under some circumstances for stream crossings. Logging best management practices (BMPs) were developed in the 1990s. They are voluntary, except for logging on public lands. Implementation of these BMPs should be included in timber-sale contracts. The focus is on the reduction of erosion from skid trails and roadways. A recent U.S. Supreme Court ruling affirms that water flowing from roadways will continue to be nonpoint source pollution, not a point source requiring a discharge permit. This does, however, release woodland owners from restrictions on pollution of waterways, including by siltation. An increasing emphasis on water quality BMPs is expected, although there are currently no efforts to make them mandatory. These BMPs can be found at http://www.in.gov/dnr/forestry/2871.htm.

Of major regulatory concern are U.S. Fish and Wildlife Service restrictions on tree felling that impacts the habitat of endangered species, the Indiana bat in particular. At the time this publication was written, the U.S. Fish and Wildlife Service and the Indiana Department of Natural Resources (IDNR), Division of Fish and Wildlife, in cooperation with the Division of Forestry, released an agreement dealing with tree felling. The 2013 agreement is at http://www.inwoodlands.org/conserving-federally-endangere/. The agreement is subject to change. Notices of change will be published at http://www.in.gov/dnr/forestry/.

Buyers desiring to build structures on a woodland under consideration for purchase need to ascertain zoning, building code, "curb cut" (entry of a lane onto a public road), septic, storm water, and related regulations and permit requirements. Use of legal counsel will save many hours of reading and interpreting regulations.

Risk Assessment

There are many bad things that can happen to woodlands. Some are amenable to a degree of control; others are acts of God. Risks that you can control include marking, maintaining, and walking boundary lines on a regular basis to look for trespass activities. You should develop a relationship with adjacent owners, if you will be an absentee owner (i.e., not live on the woodland). They can warn you of unusual activities in the area. Logging on adjacent properties should be monitored. The most frequent form of timber trespass is logging across boundary lines. Less frequent is the theft of individual, high-value trees. Physical restrictions at entry points may reduce this risk.

Tornados, straight-line winds, downburst, floods, and other weather-related events can be very destructive to timber and structures. The probability of such an event occurring at any given location is very low. Droughts can have long-term, negative effects on trees, even if the year following a drought has normal rainfall levels. Forest fires do occur in Indiana. The degree of damage to timber depends on the species and age of the trees. Older trees with thick bark may survive a typical ground fire. There is no danger of the dramatic crown fires seen on reports of fires in the Western United States unless a woodland is stocked primarily with coniferous species.

Insects and diseases are always present in forests at endemic levels. They are controlled by natural factors such as the resistance of healthy trees, insect-eating birds, and predator insects. The biggest danger is from invasive species, such as emerald ash borer, Asian long-horned beetle, and gypsy moth. Forest health is also diminished by invasive plant species such as Amur honeysuckle. Such species can take over a forest and reduce the growth rate and health of trees. Information on this risk is available at http://na.fs.fed.us/spfo/invasiveplants/states/in.asp

Forests are dynamic ecosystems that seek a natural balance after disturbances. Maintaining all the components of the ecosystem in place is the best defense against any destructive force. Dramatic changes in the physical appearance of forests may reduce their aesthetic value. Some consolation may be the opportunity to observe how the forest recovers over time. Changes can be observed in the herbaceous and woody vegetation, resident breeding bird species, migrating bird species that stop by for food and rest, insect species, mammals, and salamanders and other amphibians.

Revenues and Expenses

Very few woodland owners keep records of their woodland revenue and expenses. The amount and timing of timber revenue is primarily dependent on the amount of land owned, timber stocking, timber quality, and growth rate. Well-stocked tracts of at least 100 acres can be managed to provide income from the sale of timber every 5 to 10 years. Although it doesn't take into account the timing of timber sales, estimates of value increment indicate income potential, discussed above. A professional forester can estimate this. Current estimates of value increment are also helpful in justifying the deduction of qualified expenses on your federal income tax return.

Property taxes are usually not the major expense of owning woodland in Indiana, assuming it's enrolled in the Classified Forest and Wildlands Program (CFWP) http://www.in.gov/dnr/forestry/4801.htm. CFWP may result in an annual cost of $0.05 to $.10 per acre. Property taxes can be much higher if your house is located in woodland and the area other than the house lot is assessed as excess residential property. The assessed value and tax liability of real property is available at the assessor's office in the county courthouse, and on the websites of some counties.

Some tracts require infrastructure improvements to facilitate management activities. Access roads are the primary requirement. Traces of roads from previous eras can be found in almost all tracts. These can be improved, but adequate provisions must be made for crossing waterways or wetlands, and to control erosion of grades.

Timber managed to maximize income requires periodic evaluations by consulting foresters. A minimum of every 10 years between evaluations is recommended. These professionals charge on a per-hour basis to conduct inventories and update management plans. The plans include recommendations for when timber sales should be conducted, other cuttings needed to capture in the best trees the growth potential of a stand (crop trees), evaluation of insect and disease conditions, identification of non-timber revenue sources, and more. Some investors choose to implement needed improvements such as **timber stand improvements** using their own labor. In most cases, however, contracting with a consulting forester to do the work is well worth the expense. The primary justification for doing so is the strenuous physical labor involved and risk associated with using chain saws.

Because of the uniqueness of each timber sale, a sale constitutes a spot market (i.e., each sale is so different that generalizations are dangerous). Capturing the fair-market value requires precisely quantifying the timber to be sold and making its availability known to potential buyers. Timber buyers who may be professional foresters are employed by lumber companies. Some loggers also buy timber and sell the logs into the market for each type of log. These buyers usually negotiate a price with the woodland owner. There are also professional consulting foresters with knowledge of markets. They usually represent timber sellers in a bidding sale process. They may charge a flat fee, but usually they contract for a fixed percentage of the gross revenue. One-on-one negotiations with individual buyers may be required for selling small quantities of timber or low quality timber. See *Marketing Timber* https://mdc.itap.purdue.edu/item.asp?Item_Number=FNR-111-W and *Tips on How to Get the Most from Your Timber Harvest* https://mdc.itap.purdue.edu/item.asp?Item_Number=FNR-138-W.

Management Practices

Forests are complex ecosystems made up of a diversity of plants and animals. Although forests are resilient if given sufficient time to recover after a disturbance, most owners have an image of how a forest should look. Management may be necessary to maintain this look. Many owners do not fully understand that forests are dynamic—constantly changing. Managing a forest to achieve specific objectives is challenging, even for professional foresters. Landowners willing to become familiar with how forests change and to work with a professional forester are more likely to be satisfied with the benefits received from their woodland.

A natural woodland includes a variety of tree sizes and herbaceous vegetation.

Most importantly, each owner must determine objectives for the woodland. This may be difficult, because of the many and sometimes-conflicting options. A good tool for beginners is the *My Land Plan* website. http://mylandplan.org/?utm_source=HomePageImage&utm_medium=AFFwebsite&utm_campaign=MyLandPlan. It provides access to aerial photos of most wooded properties and leads owners through a step-by-step decision process. Some owners want their forests to be parklike. They remove all woody vegetation below the main tree canopy. This may be appropriate close to a house or cabin. It is less appropriate further into the woods. Removing the undergrowth requires great effort, because nature continually works to reestablish it. It also reduces the opportunity for the growth of young trees to replace those dying naturally or removed in a harvest. It also reduces the variety of wildlife.

The other extreme is to allow the forest to evolve naturally with no human interference except for access trails. Most landowners cut trails so that walks in the woods don't require bushwhacking. Locations where limbs and dead trees may fall onto the trail should be noted. Incidents are most likely during heavy winds.

Professional foresters frequently recommend sufficient tree removal to maintain a majority of vigorously growing trees. It's now standard practice to leave standing dead trees to provide food and habitat for many animals, especially birds. Trees can be removed in a harvest to provide revenue, or felled and left in place to provide large woody debris. Such debris is critical for amphibians, insects, and ground-nesting bird species, and provides cover from raptors. Leaving tops to deteriorate in place after a harvest provides similar benefits.

Management to achieve a higher level of timber income focuses on identifying crop trees. These trees are nurtured for eventual harvest by removing nearby trees that crowd their crowns. This practice is referred to as a **timber stand improvement** (TSI). TSI also includes activities such as killing vines that occupy the crowns of crop trees.

Forest Certification

Forest certification programs give landowners an incentive to manage their woodland to achieve environmental goals. Certified manufacturers label final products as "certified" when they come from logs from certified woodlands, and certified logs are tracked through the production process. Given a choice, some consumers prefer these products. There's little evidence, however, that consumers are willing to pay more for them.

In Indiana there is little incentive for woodland owners to directly pay the cost to be certified. Certification may increase the number of potential buyers for timber, thereby increasing the price a landowner gets. There is no evidence, however, that buyers increase the price they are willing to pay landowners.

Woodland that is enrolled in CFWP is certified under the Sustainable Forest Initiative (SFI). They may also qualify for Forest Stewardship Council (FSC) certification under a group program administered by IDNR, Division of Forestry.

Summary

Purchasing a woodland and taking care of it can be challenging, but many families find the benefits outweigh the challenges. Purchasing a woodland should be undertaken with the same precautions as purchasing a house. Therefore, legal counsel is advised for the contract between buyer and seller, title search, and title registration. Also, a professional forester can help landowners understand what they're buying and what to do with it, based on family objectives. Legal counsel and professional assessment should be undertaken for each property considered for purchase.

Many other considerations come into play for any landowner who plans to build a house in a woodland. There are many guides about living in rural America. (For more information, do an Internet search for "living in rural America.") Any Purdue Cooperative Extension county office is also a good source of guidance and information.

Glossary

Board feet—the standard unit of measure of sawn wood products in the United States; a unit 12-inches square and 1-inch thick (Sawing a log—a truncated cone—into rectangular pieces of wood creates many complications when comparing the board foot volume of a tree or log and the board foot volume of lumber than can be sawn from it. This is why a standardized relationship is used. The Doyle log rule is used in Indiana.)

Diameter breast height (DBH)—the primary measure of the size of a tree; a tree's diameter 4.5 ft. above the ground

Fee simple title to real estate—the title assumed by owners unless stated otherwise (It is outright ownership, in contrast with leases.)

MBF—units of one thousand board feet; the standard unit of measure in the hardwood lumber industry

Mean annual increment (MAI)—the basic measure of timber productivity; growth in board foot volume per acre per year (For example, consider a timber inventory estimated at 6.5 MBF ten years ago and with a current volume of 4.0 MBF. The average MAI over the 10-year period is 6.5 MBF – 4.0 MBF = 1.5/10 = 0.15 MBF which multiplied by 1,000 gives an MAI of 150 board feet per acre per year.)

Operating margin—in this context, the value of lumber produced minus the cost of the logs used and other costs to run a sawmill (Making a profit requires that the operating margin be adequate to cover all the overhead costs associated with the lumber business. Overhead includes office labor and materials, trucks and other equipment, managers, and the not insignificant cost of keeping timber and log buyers on the road.)

Pooled investors—individuals with substantial resources to invest who join together to acquire assets that they could not afford to purchase individually

Real price—the price of something adjusted for inflation using one of the many official U.S. Government indexes of inflation (Inflation is measured by tracking the cost of a fixed bundle of goods or services. The indexes are relative to the base year of 1987. The index is 100 for 1987. If the index is 150 in 2013, the price of the bundle has increased by 50 percent.)

Real rate of return—the rate of return on an investment based on revenues and expenses adjusted for inflation. (For example, if an investment yields a return of 2 percent per year but inflation has been 3 percent for the year, the purchasing power of the investor has been reduced by about 1 percent. In other words, the investor had a loss of 1 percent in purchasing power.)

Scrubland—land covered by plant communities that include shrubs and a wide variety of other types of vegetation (also called shrubland)

Selective harvesting—harvesting individual trees in a defined area rather than harvesting all the trees within that area (Most woodland owners prefer selective harvests because it provides some timber revenue and retains enough trees to retain the aesthetic quality of the woods.)

Site index—the average height of the trees whose crowns makeup the top of the forests canopy (A good indicator of the fertility of a given tract or stand of timber is how high the trees grow in 50 years.)

Timber processing margins—the value of stumpage as determined by subtracting from the sale price of the final product, lumber or veneer, the cost of the logs and the cost of processing them into lumber or veneer (Processing costs have been coming down for many decades for mills investing in the latest equipment and management programs. The only way to reduce the cost of logs is to pay less for them.)

Timber stand improvement—the identification of crop trees and subsequent reduction of competition from surrounding trees by felling, girdling, or deadening them with herbicide. (Eliminating competition from vines in the crowns of crop trees may also be necessary.)

Tree/timber stocking—the number of trees in a given acre of woodland. (Woodland has a limited potential to support trees and other plants. An acre is fully stocked if it contains the maximum number of trees possible within this limit. The tree count decreases as the trees increase in size. Thus, other measures of stocking are also used, such as basal area.)

Unrealized capital value—the value of land and raw material available from timberland (Stockholders of major forest product companies were calculating value based on profits from production of wood products, paper, or other products made from wood. Their timberland did not contribute directly to the bottom line of these businesses. Raw material was readily available from timberland of other owners. Realizing the value locked in timberland provided shareholders with additional one-time income. Some firms established a separate company to own the timberland. Shareholders of the integrated company received ownership interests in the timber company. An additional motivation to dispose of timberland was the elimination of the lower capital gains income tax rate for corporations. The new companies owning the timberland were structured to provide owners with capital gains income reported on their individual income tax returns.)

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