



Forest Leaves

A quarterly newsletter about Pennsylvania's privately owned forestlands

Top Ten Timber Harvesting Mistakes

By Dan Snyder, DCNR Bureau of Forestry

#1 Diameter Limit Cutting (High Grading)!

Diameter limit harvests (i.e., cutting all trees above a set diameter) are common because they provide an easy way to describe trees for cutting. Because they tend to remove the larger, more valuable trees, they also provide a high (albeit one-time) economic gain. Diameter limit harvests are a form of high-grading that “takes the best and leaves the rest.” Cutting using these approaches is particularly damaging in the hardwood-dominated forests like those in Pennsylvania. Diameter limit cutting seems to make sense as way to remove the larger “older” trees, and leave the smaller “younger” trees to grow. However, in even-aged stands (which we have a lot of in Pennsylvania due to historic cutting patterns), the smaller trees are not necessarily younger, just slower growing. Frequently these smaller trees are genetically inferior, damaged, or less vigorous species. They are often not the trees you want growing into the next generation. For example: a suppressed hemlock sapling, one inch in diameter, may be 60-80 years old. A healthy black cherry, 16 inches in diameter, may be the same age. Which “young” tree do you want left growing in your woods?

#2 No management plan!

A forest management plan can supply you with the information you need to make sound forest management decisions. Plans vary in detail, ranging from very detailed plans to short and concise. The Pennsylvania Forest Stewardship Program can provide cost-share support for you to develop a plan. You must have at least five acres or less than 1,000 acres of forestland. Waivers for larger owners (up to 5,000 acres) are available through the USDA Forest Service. Developing a plan with the assistance of a Bureau of Forestry service forester and at least one Forest Stewardship-trained natural resource professional will help you learn about your forest's resources and how you can maintain and improve them. You can learn how to manage for wildlife, recreation, aesthetics, or timber production. At a minimum, your management plan should contain detailed property descriptions (including property history), map(s), and management activity prescriptions specific for your property. Only after a careful review and analysis of your property can you make sustainable decisions about managing or selling your trees. **NEVER** be pressured into making quick cutting

choices. From a tree's perspective, there is usually no rush to make a quick decision.

#3 Not using a forester to represent the landowner!

Studies show that 80% of the timber harvests on private forests do not involve a forester representing the forest owner in the sale. Failure to involve a forester in your timber sale decisions can have consequences. Often times, the decision can result in less income and potentially unsustainable outcomes.

Consulting foresters representing the landowner work for a fee, and studies show that they can increase sale income by marking and marketing your trees – their services can greatly help simplify timber selling. A professional forester's knowledge can help to retain or improve your woodland's productivity, as well as maintain wildlife habitats, and control erosion by planning logging road and trail layout.

#4 Trees to be sold are not marked!

Marking the trees you want to sell or retain would seem like an obvious step in selling timber. Surprisingly, many sales occur without marking or a clear understanding of which trees will be cut. Setting a diameter limit, as discussed in #1 above, is not a good way to designate trees to cut. Without a clear understanding of what to take or leave, it is nearly impossible to establish a fair price, as you have no way of knowing how much volume, and thus value, you are selling. A timber harvesting plan and the resulting prospectus advertising trees for sale should indicate the species, diameter, and number of 16-foot logs offered. This information allows prospective buyers to estimate the timber volume for sale and make appropriate bids.

#5 No knowledge of timber value!

Unless you are intimately acquainted with timber markets (both overseas and domestic), with experience in timber scaling, including defect estimation, it is very unlikely you can estimate the value of your standing timber yourself. Timber prices vary with furniture, housing, and overseas markets. In addition, it is unlikely that many forest owners can understand logging costs, access issues, and local

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Top Timber Harvesting Mistakes Continued...

competition for standing timber. A professional forester will be your biggest ally in determining timber value.

#6 No competitive bidding!

If you talk to only one person about selling your timber, will you know whether or not you are getting a true representation of value? Studies show that knowing what you have to sell and offering it through a competitive bidding process will often secure the best price. Who would sell a house or car without knowing the value and trying to find the buyer willing to pay the price? Taking the time to find the right buyer can pay dividends. If people are approaching you to buy, you likely have something to sell.

#7 No erosion and sedimentation plan or provisions!

In Pennsylvania, all earthmoving or earth disturbing activities must have an Erosion and Sedimentation (E&S) Control Plan. By law the plan must be implemented and effective. Soil cannot leave the property. Ultimately landowners have the responsibility to ensure that activities on their property do not degrade water quality.

An E&S plan must identify threats to water quality and describe specific steps to address these issues. As part of the timber sale contract, responsibility for developing and implementing the E&S Plan can be transferred to the buyer. The buyer, the landowner, or a designee can prepare the plan.

#8 Selling on "percentage" or "shares" (For example, 50/50 or 60/40)!

Unless you or your designee can follow every truckload of logs that leaves your property, and can assure that the buyer tallies and pays for the volume, you are at risk. Ideally, you should know what you are selling, bid it competitively, and receive payment before cutting any trees. However, there may be tax advantages to retaining economic interest in your trees until they are cut and removed from the property. Check with your forester or tax advisor about this tax issue.

#9 No reimbursement for excessive timber damage!

Your contract with the buyer should clearly state penalties for excessive damage to standing residual trees and other property. It is often a good idea to require a performance deposit to ensure that contract terms and requirements are met. The performance deposit is a payment over and above the selling price, held in escrow until sale termination. A certain amount of residual stand damage is to be expected during the harvest. Trained and responsible loggers will take care to minimize such damage.

#10 No contract!

A contract is one of the most important elements leading to a successful and profitable timber sale. The contract describes the who, what, where, when, how, and for how long language relating to your sale. The contract does not have to be long or technical, merely thorough and accurate. The contract should name the seller, the buyer, the location of the sale, how much is sold, and the length of the agreement. It should cover the seller's responsibilities such as guarantee of ownership, right-of-way across the property to the buyer and his agents, and a clause for changing the contract elements if the modification does not alter the basic principles of the contract. The buyer's responsibilities are more involved and include: payment schedule, excessive residual stand damage penalties, fire protection (prevention and suppression), repair to existing fences damaged during the harvest, bridges, culverts, and roads, operating sequence, performance deposit, road construction, landing construction, voluntary shut down, mandatory shut down, and implementation of the Erosion and Sedimentation Control Plan. Landowners must also realize that should they instruct the buyer to leave stream crossing measures in place, they (the landowners) are responsible for the maintenance and upkeep.

Things to Remember When Selling Your Timber

Don't be hasty to sell your timber. Take the time to collect and analyze as much information as you can. As far as trees are concerned there is usually no rush to make a quick decision, so don't be pressured into doing so. Know what you are selling, bid it out to determine the market value, and negotiate a contract that protects your interests.

The Pennsylvania Bureau of Forestry has field offices responsible for all of Pennsylvania. Service Foresters can offer advice about selling your timber, and provide additional information. They cannot, except in uncommon circumstances, mark your timber.

If you have timber you want to sell, consider contacting a consulting forester. These professional foresters will help you determine your objectives and mark timber in accordance with your objectives. They have experience, lists of potential buyers, and can negotiate and prepare a good sale contract. Consulting foresters most often work on a commission when selling timber.

One last thought, when you are selling timber, you want the best advice you can obtain, and you can benefit by having a representative concerned about your objectives and the long-term sustainability of your forest working with you.

***Carbon and Forestry Article - Delayed Until
Fall 2007 Forest Leaves***

Changing Timberland Ownership

By Ken Manno, Program Manager, PA Sustainable Forestry Initiative

Are you or is someone you know a relatively new forest landowner? Are you, or they, unsure about how to manage this forestland? Are terms such as “Best Management Practices (BMPs),” “Biodiversity,” and “Management Plan” perplexing? If so, the Pennsylvania Sustainable Forestry Initiative (SFI) program can help.

The PA SFI Forest Landowner Information Packet contains very basic information to provide forest landowners with a starting point for developing an effective and realistic forest management plan. Whether identifying goals and objectives, inventorying the various resources on your property, determining the level of and threats to natural regeneration that may be occurring on your property, identifying residual stand protection, what you should know about insects, disease, and fire, protection of site and water resource quality, aesthetic considerations, understanding wildlife habitats,

biodiversity, or identifying and protecting endangered plant and animal species, the materials in the packet can provide answers to some basic questions and identify resources available to help you deal with more complex matters. Equally as important, the materials are available **ABSOLUTELY FREE AND WITHOUT OBLIGATION**. Simply contact the PA SFI office toll free at 888-734-9366, or at sfi@penn.com and ask for the landowner information packet.

Whether you own five acres or five hundred acres of forestlands, having a management program to ensure long-term sustainability of that resource is critically important. There are many sources of information and assistance available to help you. You need to take the time and make the effort to seek them out. The PA SFI Landowner Information Packet can serve as an effective tool for beginning this process.

Pennsylvania Forestry Association Update

By Linda Finley, PFA President

It's been a busy spring for the Pennsylvania Forestry Association. In March our Conservation Dinner Fund Raiser was a success, thanks to supporting members and friends. In April, PFA, Pennsylvania Tree Farm, and the Northwest Pennsylvania Woodland Association toured George and Brenda Kirik's property – 2006 State Tree Farmers of the year. George shared his success with growing black cherry, and it was a day full of useful information. We were happy to help the Penn State School of Forest Resources celebrate its 100th anniversary in late April. In May and June, the PFA Rambles (field events) – tree planting on the Sproul State Forest, canoeing on the beautiful Loyalsock, Sullivan County, and horseback riding through Tioga State Forest – all received rave reviews.

At the PFA Board of Directors meeting in March, the Board voted to become a supporting member of the national 25x'25 Initiative. In so doing, we join over 400 national and regional organizations, corporations, businesses, and State, County, and local governments in supporting the expansion of the production and use of renewable energy. The vision of the 25x'25 is that, “By 2025, America's farms, forests and ranches will provide 25 percent of the total energy consumed in the United States, while continuing to produce safe, abundant, and affordable food, feed, and fiber.” Across America, individuals and groups are coming together to increase our energy independence and to obtain more of our energy from renewable sources, thereby decreasing our use and dependence on fossil fuels.

PFA recognizes the important role forests play in helping to achieve energy independence, and the Association supports using forests for renewable energy. However, to maintain the economic, social, and ecological benefits derived from forests, it is essential that any use and practice must embrace science-based forest management to ensure sustainability.

We do not have all the solutions to the problems, but we must be part of the discussion. The summer issue of *Pennsylvania Forests* contains additional information on this important subject.

Looking ahead, the date for this year's PFA Annual Meeting is September 28 and 29. We will meet in historic Washington County,

located in the beautiful southwest corner of our state. Our host hotel is the Holiday Inn Meadow Lands, just north of Washington on interstate 79.

The PFA Board of Directors will meet Friday, September 28, at 7:00 p.m. (everyone is welcome). Saturday the 29th is the main event. We will begin with breakfast and a short business meeting, followed by our field tour, and conclude with time to socialize with friends, a delicious dinner, informative and interesting speakers, and award presentations. It promises to be a busy, fun-filled day. We have shortened the meeting schedule to make participation more convenient. Detailed information and registration are in the summer issue of *Pennsylvania Forest* or on our web site (<http://pfa.cas.psu.edu>). You can also call the PFA office (717-766-5371). Hope to see you in Washington, PA!

Call for Nominations: Joseph T. Rothrock Award

Each year at its annual meeting, the Pennsylvania Forestry Association (PFA) recognizes an individual, organization, or group's significant contributions to the public recognition of the importance of Pennsylvania's forest resources in the tradition and spirit of Dr. Joseph T. Rothrock. Dr. Rothrock served as the first president of PFA and earned the title, “Father of Forestry in Pennsylvania” through his untiring efforts to promote the forest conservation movement in Pennsylvania.

Nominees for the award will be evaluated according to three selection criteria: (1) value of contributions to the continued conservation of Pennsylvania's forest resource (60%); (2) public recognition and stature of the individual in the field of resource conservation (30%); (3) other unique or special considerations which demonstrate a long-term commitment to conservation (10%). Nominations for the award should address these criteria in appropriate detail.

The deadline is AUGUST 1, 2007. For more information or to submit a nomination, contact the Pennsylvania Forestry Association, ATTENTION: Rothrock Award Chairman, 56 E Main Street, Mechanicsburg, PA 17055, or E-mail: ThePFA@juno.com.

Pennsylvania Tree Farming Notes

By Dennis and Jackie Waldorf, Co-Chairs, Pennsylvania Tree Farm Committee

First Annual State Tree Farm Tour

On a beautiful April Saturday a group of about 50 people met at George Kirik's Tree Farm in Erie County near the town of Corry. George, the 2006 State Tree Farmer of the year and a finalist for the 2007 Northeast Regional Tree Farmer, led the group on a tour of his woodlot. He gave a very informative and interesting talk about the forestry practices he has performed and the timber stand improvement harvest that was underway. On behalf of the Tree Farm Committee, and those who joined the tour, we wish to extend a thank you to George and Brenda for hosting the tour. Thanks also to Tom Erdman, Bureau of Forestry Service Forester, and Cecile Stelter, Assistant District Forester for District 14, for organizing the event, and to Linda Finley, Pennsylvania Forestry Association President, for that organization's support and promotion.

The Tree Farm Committee intends to hold a tour at the State Tree Farmer of the Year's property each year. We encourage all tree farmers as well as PFA members and local Woodland Owners Association members to attend. Watch for information about next year's event in *Forest Leaves*.

Forests & Families

The first *Forests & Families* newsletter from the National Tree Farm offices has been mailed to PA tree farmers. The newsletter is a national effort to improve communications with tree farmers. We particularly enjoyed the Carbon Trading and Your Tree Farm article. If you are a tree farmer

and did not receive this informative newsletter please contact us at dennis_waldorf@hughes.net. The most likely reason you did not receive the mailing is an incorrect address. So, please include your address in your e-mail.

State Tree Farmer of the Year

We received two nominations for the 2007 Pennsylvania State Tree Farmer of the Year. They are Jim Cours of Dalton, nominated by Service Forester Jackson L. Gearhart, and Craig, Janet, and Tara Olver of Honesdale, nominated by Inspecting Forester Timothy Hoffmann. The selection subcommittee intends to visit each property. Both nominees have strong credentials and we predict that the selection committee will have a tough time deciding.

Volunteers Needed

We are seeking volunteers to staff the Pennsylvania State Tree Farm exhibit at Ag Progress Days, August 14-16, 2007 in Rock Springs, PA. This is an opportunity to share your knowledge and experience with other landowners interested in the tree farm program. Earlier this year, we introduced our beautiful new tree farm display that draws a lot of interest from passersby. If you can give us about four hours of time on any of these dates, please call us at (814) 379-3375. Thanks in advance.



Choosing a Professional

Reprinted from Women in the Woods, University of New Hampshire Cooperative Extension

The professionals you work with, whether a forester, accountant, or estate attorney, will guide you through their world of knowledge to help accomplish your goals. Your ability to articulate your goals, the professional's ability to listen, understand, and interpret those goals into appropriate actions, and your supervision of their work will determine your satisfaction with the product. Rapport between you and the professional is also important in attaining a satisfactory result.

A professional who contacts you about providing services may not always be the best option for accomplishing your goals. Contacting and interviewing at least three professionals in the field with which you need assistance will help you find the best match for your needs. The following steps will help you collect enough information to make an informed decision about who to hire:

Identify your goals for working with a professional. What do you want to accomplish? What are your priorities?

Obtain a list of available professionals in your geographic area.

Talk with friends and family members who might have goals similar to yours and get recommendations about professionals with whom they have worked.

Use the information collected to identify at least three professionals who might be a good fit.

Contact those professionals and gather the following information:

- **Credentials:** education, experience, licensing/certifications, professional affiliations, recent continuing education.
- **Professional philosophy:** what are their goals when working with clients; with what type of clients do they like to work most; why did they get into the profession and what has made them stay?

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Grapevines in Your Woodlot

By David Jackson, Extension Educator and Forester

Wild grape (*Vitis* spp.) is a native vine found throughout Pennsylvania with numerous species occurring in a variety of habitat types. Grape grows primarily as a high climbing woody vine with shreddy bark. Its leaves are simple, toothed, heart shaped and range in size from two to nine inches. Flowering occurs between May and July and the purple fruit appears between July and October and can remain on the vine through the winter. Wild grape seeds require full sunlight in order to germinate. However, once buried in the soil a wild grape seed can remain dormant for as many as eight years, waiting for the right conditions to sprout.

Birds and various small mammals spread the seeds of wild grape in feeding on the fruit. Grape can also sprout from the root or the cut stump following a timber harvest and can grow very rapidly when exposed to full sunlight. Under the right conditions of sunlight and moisture a grape vine can grow as much as 15 feet per year. They tend to grow best on cooler and moister north-facing slopes.

Wild grapes provide a valuable food source for a variety of songbirds, game birds, and small mammals. As many as 80 species of songbirds are known to eat wild grapes. Wild grape thickets also provide valuable nesting and winter cover for small game species like grouse, rabbits and squirrels.

While grapes may be beneficial to wildlife, the vines can be very detrimental to trees and can have an impact on timber production. Grape vines grow into the tops of trees by growing up with the tree from the seedling stage or by growing into the canopy from a neighboring tree. They cannot climb a mature tree. Therefore, the tree is roughly the same age as the vine. The trees can become disfigured or killed when the vines become weighted down by ice or snow. The vines can also block sunlight from reaching the tree's leaves. This causes the tree to become stressed for the synthesis of food and grow at a slower rate, or possibly die out completely. The vines can also deform the central leader causing trees to have crooked or forked main stems.

The preferred method for controlling wild grape in a forest stand is to sever the vines three to five feet from the ground. This is a very effective means of control as long as the vines are growing under a complete forest canopy. The vine will likely resprout but will die within 3 years if they are growing in full shade – wild grape is intolerant of shade. Because of its voraciousness, it is imperative to address a grapevine problem a number of years prior to harvesting any timber. In doing so you will allow the new regeneration to grow free of any vines.

Wild grape can also be controlled by chemical means. The most effective method of chemical control is a basal application of Garlon 4 (active ingredient triclopyr). Garlon 4 is a non-restricted use pesticide that can be applied by yourself on your own property without an applicator's license. The herbicide is applied as a 25% solution mixed with an oil carrier such as commercial basal oil, diesel fuel, kerosene, mineral oil, or vegetable oil (warm weather only). It is also a good idea to add a commercial dye to the mix to be able to tell which vines have been treated. The solution is applied using a backpack sprayer and thoroughly wetting the lower 12-15 inches of the vine. This application can be done at any time of the year except when snow or water prevent spraying to the ground line. As always, when applying any pesticide be sure to read and follow the label directions.

As with many things in natural resources management, the decision to treat grape vines is a compromise based solely on the landowner's objectives. If you have a strong timber objective you may wish to eliminate all the vines from your timber stands. On the other hand, with a wildlife objective in mind, it would be beneficial to leave some vines for food and cover. In either case, the decision is yours to make. Educate yourself so that you can make the best decision to reach your woodlot goals.



Choosing a Professional Continued...

- Describe your **goals** and ask if they have worked with other clients who had similar goals.
 - Request one to three **references**, who have similar goals/situations, with whom you could talk. Foresters may be willing to show you a management plan they've prepared or walk you through a property they've managed over time.
 - Discuss **fees** charged for the type of work in which you are interested. If there are no fees, be sure you understand who pays the bill and how that might affect the professional's recommendations.
 - Discuss their **availability** to do the work and the time frame to complete it.
- Contact the references for those professionals still under consideration and get a feel for the professional's traits, including:
 - Reliability
 - Responsiveness
 - Communication skills: listening and speaking
 - Quality of work
 - Assessment of associates of the professional (loggers, truckers, office staff, assistants, etc.) who will likely work on your project.
 - Compare the professionals and make a decision.



Forest Leaves Calendar



Saturday, July 14. Woods in My Backyard, 9 a.m. – Noon, Meadville. Registration \$20. **1**

Saturday, July 14. GPS for Beginners, 10 a.m. - Noon, Riverfront Park, Loyalsock Township, Montoursville. For more information, call Dr. Bob Hansen at 570-265-2896 or rsh7@psu.edu.

Saturday, July 14. Southwestern Pennsylvania Woodland Owners Association: Young Tree Plantations Field Tour, Meet at Building 10, Greene County Fairgrounds, Waynesburg, 12:30 p.m.

Saturday, August 4. Allegheny Mountain Woodland Association: Annual Picnic, Yahner's Clearview Farm (Cambria). For directions and details call Barb Noll, 814-472-8560, paulnoll@pennswoods.net or Romuald Caroff, 814-487-5786, rjcaroff@comcast.net.

Saturday, August 11. Central Pennsylvania Woodlot Management Workshop, 9 a.m. – Noon, John Esh Farm Woodlot, Hublersburg. Pre-registration required, \$10.00 registration fee. Contact Centre County Extension (814) 355-4897 or CentreExt@psu.edu.

Tuesday – Thursday, August 14-16. Ag Progress Days, Ag Progress Grounds, Rock Springs. For more information: <http://apd.cas.psu.edu/>

Saturday, August 18. Clearfield/Jefferson Forest Stewardship Committee: Trees to Lumber, Bell Township (Clearfield), 9 a.m. – 3 p.m. Cost is \$15.00 and includes lunch. Contact Gary Gilmore, Bureau of Forestry, 814-849-7463 or ggilmore@state.pa.us.

Saturday, August 18. Southwestern Pennsylvania Woodland Owners Association: Woodland Plant Identification Field Tour, Raccoon Creek State Park, Noon. Meet at Building #10, Greene County Fairgrounds, Waynesburg.

Saturday, August 25. Woods in My Backyard, 9 a.m. – Noon, Tionesta. Registration \$20. **1**

Saturday, August 25. North Central Forest Landowners Association: Field Workshop – GPS and other topics, Galeton. **2**

Saturday, September 8. North Central Forest Landowners Association: Woods Walk: Tree Measurements and Value, Comstock Property. **2**

Sunday, September 9. Central Susquehanna Woodland Owners Association: "Hands-on" Session: Invasives Control and Tree Planting, 1:30 p.m., Hermann property, Danville (Montour).

Wednesday, September 12. Southwestern Pennsylvania Woodland Owners Association: Meeting, 7 p.m. Building #10, Greene County Fairgrounds, Waynesburg.

Saturday, September 15. North Central Forest Landowners Association: Plant yer own patch! Guidelines for establishing and growing ginseng and other native forest medicinal plants, 8:30 a.m. – 3:45 p.m., Eldred (McKean). Registration is \$25. Pre-register by September 7. **2**

Saturday, September 15. Southwestern Pennsylvania Woodland Owners Association: Identifying Mushrooms in Your Woodlands, Noon. Meet at Building #10, Greene County Fairgrounds, Waynesburg.

Sunday, September 23. Northwest Pennsylvania Woodland Association: Agroforestry Workshop and Family Picnic, 2 – 4 p.m., Troy Bogdan's Woods, Cambridge Springs. Contact Tom Sekula, 814-796-6822.

Saturday, September 29. Woods in My Backyard, 9 a.m. – Noon, Erie. Registration \$20. **1**

Saturday, September 29. Wayne Lackawanna Forest Landowners Association: David Clemons Tree Farm, 10 a.m. – Noon. RSVP to 570-253-3539.

Saturday, September 29. Woodland Owners of Centre County: Nature Tour, 9:30 – 11:30 a.m., Shaver's Creek Environmental Education Center (Huntingdon County).

Saturday, October 13. Wayne Lackawanna Forest Landowners Association: Hill Saw Mill Tour, 10:30 a.m., Hill Saw Mill, Lookout. RSVP to 570-253-0930.

Sunday, October 14. Central Susquehanna Woodland Owners Association: Chainsaw Safety, 1:30 p.m., Piestrak Stewardship Forest, New Columbus (Luzerne).

Thursday, October 18. Dauphin County Woodland Owners Association: Non-Timber Forest Products: Ginseng, Mushrooms, Goldenseal. Dauphin County Cooperative Extension Building, 1451 Peters Mountain Road, Dauphin. For information, 717-921-8803.

1 Contact Mercer County Extension Office for information and to register, 724-662-3141.
2 For more information contact Tim Pierson, 814-887-5613 or tgp2@psu.edu.

Next deadline: Sept 1 for events between Oct 15 and January 15.

Sustainable Forestry: Principle Two

Maintain and/or Improve Forest Productive Capacity, Including Wildlife and Aesthetics

By Jim Finley, Professor, PSU School of Forest Resources

As we did in the last quarter, understanding what forest landowners can do to implement Principle Two may become more apparent by dissecting it. What can you do to maintain and/or improve forest productive capacity including wildlife and aesthetics? We'll start with forest productivity and then delve into management relative to your objectives. In this principle, wildlife and aesthetics represent only two of the many objectives you might attribute to your forest and its management

The first part of the principle challenges you to maintain and/or improve forest productive capacity. To begin, I make the assumption that you own forest in a region where naturally established stands are the rule – you are growing what shows up, not planting an artificial forest with genetically selected or improved species. If you manage plantations, you have an added level of control over productivity. Throughout their life cycle, naturally regenerated forests are more challenging to manage, especially if you strive to maintain species composition, diversity, and forest structure (i.e., both the vertical and horizontal relationship of forest types, age classes, and competition), while working toward individual objectives.

When managing any forest to maintain or improve productive capacity, there are myriad considerations, and most owners will find it useful to

work with people who have local expertise relating to forest processes. Forest management often involves cutting. When you cut, you have the best opportunity to improve your forest, and also the best opportunity to adversely affect your forest. Cutting is a double edged sword. Take the time to learn about your forest, to understand its health and condition, what is right and what is wrong. Across Pennsylvania there are many information and assistance sources – the PA Bureau of Forestry, Tree Farm, the Sustainable Forestry Initiative, the Association of Consulting Foresters, and Penn State Cooperative Extension – to name a few.

Many Pennsylvania forests show the impacts of poor harvesting decisions, inadequate regeneration, degraded understory composition, and too many deer. Recognizing these conditions, because you may be used to seeing the forest as it is, requires collecting information, analyzing conditions, and making decisions in the context of your objectives and the landscape around your forest. It is important that you think of your forest as part of the forest ecosystem. The decisions you make affect forests and the ecosystem beyond your boundaries. Again, this is where

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Sustainable Forestry: Principle Two Continued...

professional assistance and more information will help to address Principle Two.

While many forest owners struggle with the idea of talking to and cooperating with their neighbors about managing forests across ownership boundaries, this is a step that we should encourage. If you are like most forest owners, you value wildlife, clean water, and healthy forests. Consider just these three values for a moment and whether ownership boundaries constrain them – they generally do not observe ownership boundaries. As an example, if one owner decides to allow invasive plants to overrun a property, that decision has the potential to affect others beyond the individual's boundary.

Your management decisions can affect productivity. For example, when you cut trees, you change conditions in your woodlands. More light reaches the forest floor. Plants, either existing or that germinate after the cutting, benefit from this light. Desirable tree regeneration might occur, or ferns or other competing plants might expand to cover the understory. In either case, you will want to know what is happening. Did you achieve the desired outcome, or do you need to consider further treatments? Or, if you conduct a thinning operation to spur the growth of residual trees, did they respond as anticipated, or do you need to cut more trees to see a response in the residual trees?

While the examples presented thus far in this discussion relate to trees and plants, which are essential forest components, it is necessary to always consider your specific ownership objectives and how management actions affect them. As a forest owner, what are your ownership objectives? The second part of the Principle Two ties your objectives to maintaining or increasing productivity. Wildlife is an objective common to many forest owners.

Have you ever considered what you want to produce relative to wildlife? Many owners want more deer. This is an appropriate objective, but are more deer going to affect forest productivity? What will you have to trade-off if deer increase? Perhaps, you want more songbirds. What species do you want to encourage? How will you know how your management actions affect their productivity?

To answer these and other questions, it is often useful to collect information or data. An important consideration in implementing Principle Two is the decision to understand, and monitor forest change. By monitoring change, you gain an appreciation for the dynamic nature of forests – forests are in a process of change constantly. Although change is often slow, it still happens. When you manage the forest, you often impose more rapid change, create openings, shift light resources, encourage some species and suppress others.

Take the time to understand what you have done and document what you see. Think about writing about what you observe and pass the story forward to those who will manage the forest after you. This simple process is a step toward encouraging the expansion of forest stewardship in Pennsylvania and a commitment to sustaining our forested landscape.

Principle Two is interesting and challenging, it requires that you make commitments to learning about the forest, working with others, and making good decisions when you consider changes to the forest. It involves looking forward to tomorrow and managing the process. It also challenges you to monitor change, and to work to maintain healthy productive forests that will benefit tomorrow.



Building Your Library Continued...

Developing a Custom Portable Sawmill Enterprise, NRAES-134, is available for \$12.00 per copy (plus shipping and handling) from NRAES, Cooperative Extension, PO Box 4557, Ithaca, NY 14852-4557. Within the continental United States, shipping and handling for one copy is \$4.25. New York residents, add sales tax (calculated on both the cost of the book and the shipping and handling charges). If ordering more than one copy, or if ordering from outside the continental US, please contact NRAES for shipping rates and possible quantity

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FOREST LEAVES—Summer 2007

Editor: Allyson Brownlee Muth

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Calendar contributions and news items are welcome. Submissions for the next issue of Forest Leaves are due:

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Forest Leaves Publication Partners include:

- **The Pennsylvania Forest Stewardship Program.** Administered nationally by the USDA Forest Service under the direction of the PA Bureau of Forestry in conjunction with the Forest Stewardship Steering Committee and the Penn State Forest Resources Extension.
- **The Pennsylvania Tree Farm® Program** (www.treefarmssystem.org) Administered nationally by the American Tree Farm System® under the guidance of the American Forest Foundation.
- **The Pennsylvania Sustainable Forestry Initiative® SIC** (www.sfiopa.org) Initiated nationally by the American Forest and Paper Association.
- **The Pennsylvania Forestry Association** (<http://pfa.cas.psu.edu/>).

Publication is directed by representatives from the forest products industry, the Pennsylvania Bureau of Forestry, Penn State Forest Resources Extension, and private forest landowners.

This Publication is available in alternate format upon request.

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Summer 2007

Building Your Library...

Developing a Custom Portable Sawmill Enterprise by Jonathan Kays, Gary Goff, Steven J. Milauskas, Mike Greason, and John E. Wagner. Natural Resource, Agriculture, and Engineering Service, 2007, NRAES-134. ISBN 978-1-933395-03-6. 36 pp.

If you like working outdoors and are thinking of starting your own business, a new book, *Developing a Custom Portable Sawmill Enterprise*, NRAES-134 (\$12.00 plus S&H/sales tax; 36 pages; March 2007) can help you make an informed decision about your future. Today, portable custom sawmill businesses are flourishing, in part because technological advances by equipment manufacturers – over 70 of them now producing mills – have made it possible for a one- or two-person operation to produce high-quality lumber economically. Another obvious plus is that the demand for these services is growing.

Developing a Custom Portable Sawmill Enterprise, NRAES-134, reviews key considerations for those investigating options to develop a portable sawmill enterprise. It provides an overview of steps involved in lumber production and touches on all aspects of starting your own business, including determining rates; writing contracts; identifying a niche; marketing; product and service diversification; safety issues; insurance and liability; and financial analysis. For those who know little about wood or what is involved in becoming a sawyer, this guide can serve as a primer through such topics as grading lumber; types of sawing; sorting and stacking; equipment maintenance; dimension lumber versus specialty cuts; and much more.

It also provides a wealth of resources to help you find in-depth answers to your specific questions.

This 36-page guide begins by explaining how to develop a business plan – a must for those who have never operated their own business. One important aspect is deciding whether your enterprise will be a sole proprietorship, a partnership, a corporation, or a limited liability company. The next consideration is selecting and purchasing a mill. Will it be a bandsaw or a circular saw mill? Will it be a lower-end model requiring more manual labor, or a high-end, more automated model? New or used? With so many choices available in today's marketplace, selecting the right model may require some research. Contact information for twenty-seven sawmill manufacturers is included to help with this effort.

Developing a Custom Portable Sawmill Enterprise was edited and coauthored by Jonathan Kays, Extension Specialist, University of Maryland. Authors include Gary Goff, Senior Extension Associate, Cornell Cooperative Extension; Steven J. Milauskas, Director, Wood Education and Resource Center, USDA Forest Service; Mike Greason, consultant forester, Catskill, New York; John E. Wagner, Associate Professor, The State University of New York College of Environmental Science and Forestry; and Hugh Canham, retired Professor, The State University of New York College of Environmental Science and Forestry.

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