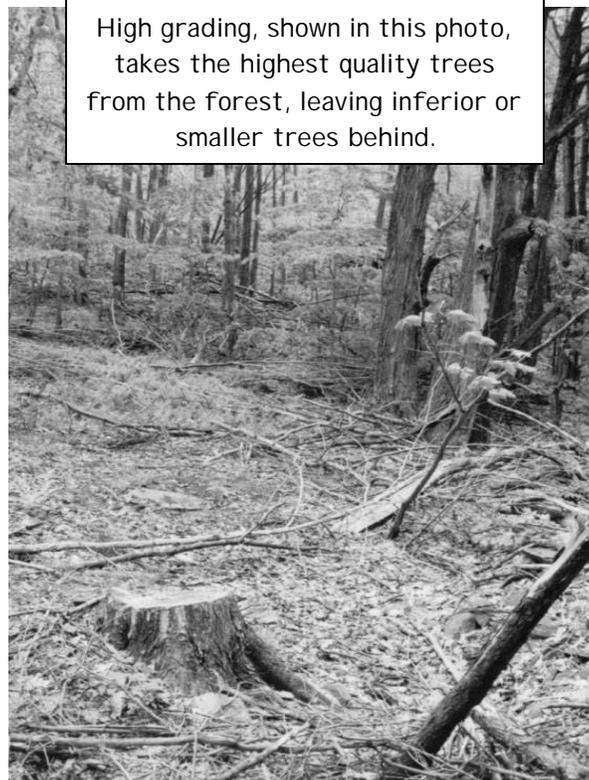


15. Forestry Practices to Avoid: Just Say No to High-Grading

By Peter Smallidge and Michael C. Greason¹

Currently the prices paid for timber in New York woodlots are good and harvesting activity has increased during the last decade. However, what may surprise many forest and woodlot owners is that some forestry techniques can limit options for future benefits and enjoyment -- both in the long run and short term. While well-planned timber harvesting can increase your benefits, "high-grading" and related practices should be avoided.

Cutting the best trees (those of highest value) and leaving the low value, often diseased or malformed trees, is too common. This type of forestry is called high-grading, where the highest grade (or value) trees are removed. By cutting only the largest and most valuable trees you remove those best suited to that site. The trees that are less well adapted remain as the next forest and the seed source for future forests. The financial gain of high-grading exists only briefly, yet ownership objectives can be



sacrificed for decades. A similar analogy from livestock is the farmer or stable manager who shoots the blue ribbon bull or winning race horse and uses the losers for breeding stock. The quality of the herd, just as the quality of the forest and woodlot, declines rapidly!

In addition to high-grading, similar practices exist with different names. High-grading is often disguised under the name of "diameter-limit cutting". This is a practice that removes all trees above a certain minimum diameter. In some rare situations diameter-limit cutting is appropriate.

For example, if old pasture trees are shading the growth of young hardwood saplings. Often however, diameter-limit cutting removes trees of commercial value (above 12 or 14 inches in diameter) before these trees can attain a more valuable size and add seed and seedlings to the forest. Selective cutting (generally not recommended) differs from the selection system of silviculture (a legitimate technique) and is another technique where high-grading can occur. Selective cutting, as commonly practiced, involves selecting the highest quality trees and

cutting them. (Technical note: selective cutting by definition can include other activities such as improvement cuts) The selection system involves someone professionally trained in silviculture to

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select trees from all age and size classes, both high and low quality to produce an uneven-aged forest. Diameter-limit cutting and selective cutting are often rationalized by arguing to remove the bigger trees so the smaller trees can grow. However, the smaller trees may be undesirable species, poor form, or poor health. By any name, high-grading degrades the value of the forest regardless of the “logic” used by foresters or loggers trying to make a quick buck.

Why does high-grading happen? A common cause for high-grading is greed to maximize immediate profits. Beginning in the early 1970's, demand for high-value timber increased and sawmills could pay more for certain species. Thus, markets for high-value trees grew stronger while markets for low value trees did not. Further, it costs about the same amount of money to cut and haul a \$10 tree as it does to cut and haul a \$300 tree of the same size. Another factor is that taxes on forest land not under the NYS 480-a Forest Tax Law can create financial hardships that encourage landowners to maximize immediate profits. The result is that more immediate profit is gained by cutting only the highest value trees, but left behind is a legacy of low quality trees and under-productive forests. This knowledge helps explain high-grading, but doesn't excuse it.

What are the consequences of high-grading, is it really that bad? One result is that the trees that are left behind won't grow as quickly as better quality trees and the time until the next harvest is lengthened. In addition, the next harvest will remove the low quality trees previously left so the value at the next harvest will be reduced. If you magnify the practice of high-grading across a region, assuming the demand for wood products remains steady, then more acres

must be harvested to meet the same demand. While timber harvesting is not bad, accelerated harvesting is not in the best interest of our natural resources and conflicts with a growing demand by the public for accountability of natural resource management. As the value of the land to produce timber crops decreases, the incentive to subdivide and develop increases.

Although high-grading usually leaves a forest of tall trees behind, there are other hidden ecological costs. Because the healthiest trees with the fewest defects are removed, the overall health

Cut the junk first. Leave high quality trees to continue growth and produce offspring.



of the forest is reduced. The remaining trees may be more susceptible to the effects of insects, pathogens, strong winds or ice-storms and less able to recover after these disturbances occur. Often high-grading emphasizes cutting of a few species and leaves behind other species. This reduction in tree species diversity can have negative consequences for wildlife that depended on the harvested species for food or shelter. Species such as red oak, sugar maple, and black cherry are economically valuable and produce seeds that are valued by wildlife. In any particular year, only one or a few species may produce an abundant crop of seeds. If those species were removed by high-grading, wildlife

that used those seeds will need to find alternative food sources and that seed source may be permanently gone from the woodlot.

So what can you do to avoid high-grading? One step is to work with competent and professional loggers and foresters. When you select a new refrigerator or car you likely consider several features, including price, reputation, service after the sale, and other long-term benefits. You'll certainly go see

Select a competent, reliable forester and logger to work with you in your forest.



what the refrigerator looks like. You should use at least these same criteria when you select your forester and logger. Ask for references, find out if the forester participates in continuing education programs and whether the logger has completed the "Trained Logger Certification" program, make a visit to forests or woodlots where they have worked, and know that the best price may not provide the best treatment for your land. The logger who out bids his competitors for a timber sale by a few percent may be more efficient or may not devote enough effort to ensure your property is left in good condition. Similarly the forester or logger who promises you maximum short-term profit likely doesn't have in mind the best interests for you and your land. The

consequences of selecting an incompetent forester or logger will exist longer than a bad choice on a refrigerator.

Another step to avoid high-grading is to have a written management plan. Your management plan will state your objectives and help keep you on track. The harvesting schedule in your management plan will help you decide when harvesting is appropriate. Just because a forester or logger offers to cut your timber doesn't mean it's the best time for your interests. The value of trees increases greatly as trees get bigger, and it's probably a safe assumption that good markets will continue to exist for high quality trees (although markets fluctuate). You may be advised that the trees are "over-mature" or "need to be cut". Know that these labels are subjective and they are only accurate in the context of your ownership objectives.

Third, look for creative solutions to remove the low value trees at the same time the high value trees are harvested. A harvest that removes high-value and low-value trees provides financial benefits from the high- and low-value trees and improves the quality of the residual forest. One way is to have the forester mark and the logger skid the low value trees to the log landing. Then you can cut them yourself for firewood, or sell them to a firewood processor. This will require extra effort on the part of the logger and forester, which means you might not make as much money, but the benefits, including even greater profits, will exist a few years down the road.

Finally, get assistance from people focused on your interests to help you develop long-term objectives and management plans. Master Forest Owner Volunteers are forest owners trained through Cornell Cooperative Extension to provide nontechnical assistance to forest owners. They can help other you think through your management objectives and provide sources of information. Also, NYS Department of

Environmental Conservation public service foresters are available for free consultation and can provide technical expertise and guidance on forest management. Both of these groups of people can provide free, unbiased information and advice that will help you avoid some of the pitfalls of practicing short-sighted forestry. The Catskill Forest Association and New York Forest Owners Association are landowner groups dedicated to helping other landowners enjoy their forest land. Contact your county office of Cornell Cooperative Extension or the nearest DEC office for more information. The DEC and the Society of American Foresters maintain lists of foresters with certain credentials. These lists include people who have made certain investments in their professional development, but in no way do the lists assure competency. Links to the DEC forestry offices, the SAF Certified Forester program, and an article on how to select a forester are available on the Cornell University Forestry Extension web page.

What can you do if your woodlot was previously high-graded? In simple terms, you need to have a vision for what you want your forest to look like and then a planned set of actions to move you towards that goal. High-grading often happens incrementally, where the first entry removes the very best trees and months or a few years later the rest of the valuable trees are cut. Once you get started on correcting past exploitations your actions, which should link directly to your ownership objectives, depend on what you have to work with in your forest. A lightly high-graded forest may need only some thinning around the best trees and steps to ensure the forest can be effectively regenerated when the time comes. A heavily high-graded forest may no longer have the tree species you desire which will require you to create openings that you then plant to your desired species. The size of the openings and the species to plant will depend on the specifics of the site. A competent forester and your willingness to invest time and probably money are necessary to move a high-graded forest back to a sustainable forest.

Because the biggest trees are cut during a high-grade, there is often substantial damage to the smaller trees.

