



Cutting Firewood on Your Woodlot

Cutting your own firewood can be a satisfying and money-saving experience. At the same time, properly conducted thinning of young forests for firewood can often improve the quality and growth of these areas, making them more valuable in the future.

If you own a small woodlot, or have permission to cut your firewood on someone else's woodlot, here are a few things to keep in mind.

1. **Safety.** Cutting trees and processing firewood is dangerous. No firewood is worth getting hurt for – and a few simple precautions help maximize your safety in cutting your wood.
 - a. Use approved Personal Protective Equipment
 - i. head, face, eye, ear – hardhat with safety glasses, face shield/screen, and ear covers/hearing protection
 - ii. legs – chainsaw chaps or pants
 - iii. feet – logger boots/boots with safety toes and instep guard
 - iv. hands – sturdy work gloves
 - b. Use a well-maintained chainsaw with modern safety features (kickback guard, chain brake, hand guard, chain catcher, throttle lock; well-sharpened, chain stops at idle, etc.). Consult the manufacturer's information to make sure you understand proper operation and maintenance. Better yet, take a chainsaw safety class.
 - c. Learn to use safe felling, limbing, and bucking techniques. There are many hazardous situations to be aware of. Improve your skills – improve your safety.
 - d. Move slowly and cautiously. Stop working when fatigued.
2. **Species:** Try to cut trees based on your heating needs.
 - a. Preferred: High-density hardwoods: oak, ash, sugar maple, beech, yellow birch, cherry, locust, hornbeam
 - b. Moderate: Medium density hardwoods: red & other soft maples, white birch, elm
 - c. Low: Low-density hardwoods: poplar/aspen, willow, alder, basswood – often called “biscuit-wood” – quick burning, hot fires, low total heat, low creosote
 - d. Low: Conifers – pines, spruce, fir, hemlock, cedar – low energy/low density, high creosote, increase risk of chimney fires
3. **Quality:** Cut trees for firewood that have low value and/or would otherwise be pulpwood.

- a. Cut trees that are crooked or forked, show signs of rot (safety concern?), have many limbs, have very small crowns or poor foliage, or are of lesser-value species.
- b. Avoid cutting “crop” trees that have the potential to become sawlogs or veneer in the future (usually these higher-value products have 5-10 times the value of pulpwood or firewood). The best trees to leave have the following:
 - i. Trunk or stem – straight sections, 8 feet or longer, fewer/smaller limbs especially on lower portions of the stem, no signs of rot/damage.
 - ii. Crown – full crowns that take up 25% or more of the tree height (trees with very small crowns will grow very slowly and may blow over)
 - iii. Species – high value species such as oak, pine, sugar maple, yellow birch, spruce, ash, etc. generally command higher prices as sawlogs and are the best candidates to leave.
- c. Snags – dead trees are often relatively dry and good to burn, but often hazardous to fell.
- d. Wildlife: If you can, leave a few snags (dead trees), den trees (trees with holes in them), and nut/fruit bearing trees for the many species of wildlife that use them.

4. **Selection & Spacing:** There are lots of rules of thumb of how many and which trees to cut in a given woodlot. Many publications are also available that describe proper selection of trees to cut and cutting levels. Proper cutting can produce firewood while improving growth and value of the remaining forest. If in doubt, contact/hire a Licensed Forester to help choose or mark trees to cut.

- a. If most trees are similar sizes: Thin by cutting lower quality, smaller trees that are touching the crowns of better quality “crop trees” which you want to leave for the future. This will give the crop trees more room to grow. These crop trees will become more valuable as sawlogs or veneer.
- b. If trees vary widely in size: Either
 - i. Cut smaller, lower quality trees that are in the understory of better quality trees; OR
 - ii. Cut larger, lower quality trees that are shading or overtopping other, better quality trees of moderate size or trees in the understory. If you take this approach, BE SURE you are leaving trees that are capable of responding to more sunlight.
- c. If trees of poorer quality are clustered, you can try cutting small blocks or patches, usually less than 1 tree height wide (e.g. in an area with trees 40 feet tall, cut a patch no wider than 40 feet at its widest). This can make space for new seedlings to become established.
- d. For most forests, cutting which opens up less than 1/4 to 1/3 of the overall tree canopy every 5-15 years will usually leave enough trees for the future.

e. Try not to damage or scar the trees you are leaving to grow in the woods.

Done properly, cutting firewood on your woodlot can provide you with winter fuel AND improve your woodlot. For more information contact the Maine Forest Service at 1-800-367-0223, or visit our website at www.maineforestservice.gov.