Using Firewood to Heat Your Home Part 2

In part one, I discussed the opportunities that exist when cutting firewood for forest management on your property. By cutting firewood a landowner can increase the health of his forest, enhance wildlife habitat, and possibly make some extra income by selling firewood. I also described the proper way to purchase firewood. In this section I will discuss the following: what are the best species of wood to burn, briefly talk about energy usage, and then talk about the disadvantages of using wood.

Some things you should to be aware of when deciding to use firewood to heat your home.

Best woods for burning

Our American elm tree died. Can we burn it? What is the best wood to burn in our stove or furnace? These are the kinds of questions commonly posed to foresters. How good the wood is for fuel depends on its density and moisture content. Any wood will burn, but the denser (heavier) woods, if properly dried, will deliver more heat. Some folks also choose wood that is easy to split over species that might burn well but are more difficult to split into firewood.

The species of wood that have the most energy content are Osage orange, hickory, locust, oaks, hard maple and ash. Woods with lower energy content include basswood, cottonwood, cedar, pine, silver maple, elm and sycamore. The table below compares the basic heating value of different types of wood.

Species	Available heat/cord in million Btu*
Ash	23.6
Box elder	17.5
Cotton wood	16.1
Elm	21.4
Hickory	29.1
Locust (black)	28.1
Oak, Red	25.3
Oak, White	27.0
Osage Orange	30.7
Pine (shortleaf)	19
Red cedar	18.9

* Heat is measured in Btu or British thermal units. One Btu equals the amount of heat required to raise the temperature of one pound of water one degree F.

Freshly cut firewood doesn't burn efficiently, because it contains too much water. For best results firewood should be cured for at least six months. The bark of cured firewood will be loose enough to pull off.

How much energy can you really use?

The amount of energy that you really use depends on the stove, fireplace or furnace you burn it in. If you have an open fireplace, nearly all of the heat goes up the chimney. Such fires look nice, but they can actually cost you heat by drawing cold air into the house as heat goes up the chimney.

Fireplaces with glass doors do a better job and a good fireplace insert increases efficiency even more. To get the most from your firewood, thought, you need a high-efficiency wood stove.

Disadvantages of using wood

Wood does have several disadvantages for home heating that has contributed to a decline in its use. These include:

- Wood is bulky and requires a good amount of storage space.
- Wood must be prepared properly or dried to burn efficiently. This takes time and space.
- Be aware of the debris, insects and fungi in decayed wood which add to housekeeping chores.
- Wood fires require some attention, stoking and periodic adjustment for good results and safety.
- Most stoves have to be filled in the middle of the night which is an inconvenience.
- Flue fires are a problem if not properly cleaned.
- People need to be aware of insect infestations and should not move firewood out of such areas.

There are several pros and cons to using firewood as your primary heat source for your house. Cutting firewood can create a cheap source of heat and could possibly save you some money. Firewood cutting can also create great memories with friends and family and it can create a healthier forest with some good wildlife habitat. When cutting wood remember to choose the correct tree species and let it season before burning. Also, carefully select the right stove or furnace that will circulate the heat throughout the house. If you purchase wood make sure you know what you are buying (cord, rank, rick, etc) before you make the purchase. When cutting firewood always think about chainsaw safety. I know several people that have been hurt or even killed felling trees.

For more information contact your local University of Missouri Extension office or visit their website at

http://extension.missouri.edu/explore/agguides/forestry/index.htm. Also, contact your local forester for more information.

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