SEASON YOUR FUEL WOOD

Why Moisture Matters

Burning 'green' (unseasoned) wood in your woodstove or fireplace is like burning dollar bills. The drier the wood, the more heat value (BTU's) you get from a log, plus less creosote and pollution is generated. Seasoned fuel wood has a moisture content of around 20%.

Most of the weight in a living or freshly cut tree is water. Seasoned wood with a moisture content of 20% contains one third the water of green wood at 50% moisture. BTU's increase as the moisture content decreases because less energy is needed to heat the water in the log to boiling and release it as steam. Once wood is cut to length and stacked for a year or two, the average moisture content generally drops to 20% or less.

How To Prepare Fuel Wood

- 1. Cut wood to the right length, usually 3" less than the length and width of the firebox.
- 2. Split the wood properly to the right size for your wood stove or fireplace insert.
- 3. Pile it up in a single row so the sun and wind can dry it.
- 4. Let the wood dry for at least six months; better still, a year or longer.

Are you Burning Wood or Boiling Water?

A pound and a quarter of well seasoned wood consists of roughly one pound of wood fibers and a quarter pound of water. Consider getting a wood moisture meter to ensure you are buying and using only seasoned fuel wood. Even at low moisture, a good sized piece of firewood still contains at least a pint of water which is volatized as steam when burned.



When properly seasoned, you will notice that the ends of the pieces are checked (cracked). A

simple way to tell if wood is properly dried is to hold a 2" to 3" round piece in each hand and strike them together sharply. Seasoned wood will make a sound like the crack of a bat. Green wood will make a dull 'thunk' like a hammer driving a wooden stake.

Prevent Mold

Stack and air dry your firewood before mold has a chance to grow. If wood is cut and piled right away, mold won't have time to grow thus minimizing allergic reactions.

Best Seasoned Woods For Burning:

Hard woods are generally best for high heat output and low emissions. These include Elm, Hickory, Oak, Hard Maple, Beech, Ash, Cherry, Apple and Walnut. Less dense woods which provide fewer BTUs (on a volume basis) include Firs, Hemlock, Cedar and many of the Pines; however, remember the most important issue regarding wood fuel is its moisture content.

So, burn only dry, seasoned wood. It's healthier for the air and for your pocketbook.

For additional information about heating with wood, go to <u>www.michigan.gov/deqair</u> and select "Woodburning and Air Quality" Also, check out <u>www.woodheat.org</u>.

Air Quality Division Michigan Department of Environmental Quality

