



**BE GREEN
BURN IT CLEAN.**

DRYING AND STORING FIREWOOD

PRINCE GEORGE



IMPROVEMENT
ROUNDTABLE

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Whether you purchase your firewood from a supplier or spend back-breaking hours gathering and splitting it yourself, these practices will reduce your firewood consumption - which equals a lot of savings in your money, time, and work. Most importantly, these practices greatly reduce smoke and creosote build up, and the risk of a chimney fire in your home.

HOW MUCH DOES BURNING WET WOOD REALLY COST ME?

Freshly cut softwood can contain up to 60% water. A lot of the energy from the fire goes towards evaporating that water – energy that could be heating your home instead. In fact, you could be getting **15% more heat** by burning seasoned firewood (15% moisture) rather than freshly cut wood.

Not only does it cost you heat energy, but a lot more energy hauling and splitting extra wood. And while that water evaporates, the wood smolders at a lower temperature, causing buildup of **creosote**, a highly flammable fuel for chimney fires.



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GATHERING AND DRYING YOUR OWN FIREWOOD

Firewood needs to be dried from its freshly cut moisture level to below 20%, preferably to 15%.

- Softwood that is split and **stacked** in a dry place takes **4-6 summer months** to dry to an acceptable moisture level.
- Hardwoods take at least 12 months to dry after being split and stacked.
- Stack the wood on lumber rails or pallets to get it up off the moist ground.
- Cover the top of the pile with tarps, metal or wood sheathing, but **leave the sides of the stack open** to circulate air.
- Wood dries through its exposed grain surfaces, so even trees that have been laying dead **must be cut to length and split to dry fully in the middle**.
- Many woodshed designs have open sides that allow wood to dry.
- Always store firewood outside of your home and transfer it inside in small batches; indoor storage can bring moulds and insects into your home.
- Don't store firewood against your house as it can attract pests and can be a fire hazard for your home.



Photo credit: PCAIR

APPROXIMATE HEAT VALUES FOR COMMON WOOD TYPES IN NORTHERN BC

Northern BC has an abundance of pine, spruce, aspen, birch, and some fir. It is good to get a mix of softer and harder wood to burn, depending on the outdoor temperature and how long you need the fire to burn for.

Tree type	Heat Rating (Million BTUs/cord)	Quality as wood fuel
Birch	21	High
Douglas fir	17	High
Pine	16	Good
Spruce	15.5	Good
Aspen (white poplar)	14	Fair
Cottonwood	13.5	Poor

- It's not just the wood density that matters; take into account how easy the wood is to split. Birch is excellent for splitting ease, drying, and heat output. Cottonwood is very difficult to split, dries slowly, and has a low heat output.
- Resinous woods like pine may produce more creosote buildup. Use caution and check your chimney at least once per burning season.



HOW TO TELL IF WOOD IS DRY

When freshly cut, wood moisture can be up to 60%.

- The end grain often has checks (cracks)
- Dry wood is much lighter in weight
- Use a moisture meter to check; measure the split surface
- Dry wood ignites and burns easily without smoldering



TIPS ON PURCHASING FIREWOOD

Shop around and select a supplier who is reliable and recommended by friends or neighbors.

- If you are going to pay extra money for dry wood, use the above tips to tell if it really is dry. Don't take anyone's word for it - **Bring your moisture meter to check!**
- Most suppliers sell wet or only partially dried wood – so buy your wood in the early spring and dry it yourself over the summer.
- The cord is the standard unit of measurement for firewood. A cord measures 1.2 x 1.2 x 2.4 meters (4 x 4 x 8 ft), or 128 cubic ft.



GENERAL WOOD BURNING TIPS

- Burn hot fires with plenty of air supply.
- Don't overload the firebox.
- Only burn seasoned wood (less than 20% moisture).
- Never burn wet or green wood, household garbage such as plastic or cardboard, painted or treated wood, particleboard or plywood, driftwood, or glossy magazines.
- Burning garbage produces noxious fumes, could damage your stove, and violates the City of Prince George's Clean Air Bylaw.
- Don't operate your wood burning appliance while there is an Air Quality Advisory in effect, except if your home has no other form of heat supply.
- Have your chimney inspected and cleaned once per year. Look for a chimney sweep or wood heating retailer certified by the Wood Energy Technical Training (WETT) program.



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MORE INFORMATION

- Check the web for creative wood storage plans that you can build yourself. Local woodstove retailers also carry a variety of wood storage racks and covers.
- Check the classifieds section of the newspaper or call building stores to ask about getting free pallets to store your firewood on.
- Visit the Ministry of Environment website www.bcairquality.ca or check the local news to see whether there is an air quality advisory in effect for Prince George.
- For information on wood burning regulations in the City of Prince George, please contact City Hall at 250.561.7600 or check out the Clean Air Bylaw (Bylaw No. 8266, 2010).
- For information on the effects of air quality on persons with respiratory or cardiac illnesses please contact the Northern Health Authority at 250.565.2150 or check the Northern Health website at www.northernhealth.ca.

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**DRY
FIREWOOD**

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**MORE HEAT,
LESS SMOKE**



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