

To the Editor:

*This article is written by John Gulland, Director of the Wood Heat Policy Institute. It is available for publication, free of charge. The **Wood Heat Policy Institute (WHPI)** supports the public interest in wood heating and advocates for the responsible use of this important renewable energy resource. WHPI is a source of credible information and analysis of wood heating related issues. It also supports government and non-governmental organizations in policy development related to wood heating. The Institute is an outreach initiative of the Wood Heat Organization (WHO). WHO has provided independent, non-commercial advice to householders interested in the use of wood heat since 1996.*

Where there's smoke, there's pollution and waste ***Learn how to heat with wood without making smoke***

Wood heating is sometimes viewed as just a source of pollution, but that opinion ignores its environmental advantages and the great technical advances of the past twenty years. These days a plume of smoke from a chimney is a sign the household still burns wood the old way. There are three steps to smoke-free wood heating.

Start with an advanced technology stove, fireplace or furnace, meaning that it burns cleaner than the U.S. Environmental Protection Agency smoke emission limit of 7.5 grams of smoke pollution per hour of operation. EPA certified wood burners became available in the late 1980s and their manufacturers have been improving them ever since. These days the average emission rate for new advanced stoves is down around three grams per hour because of competition between stove makers. About forty percent of wood stoves now in use in Canada are advanced technology models. Canadians have embraced the new designs, not just because they pollute less but also because they are more efficient, attractive and convenient to use than the old 'airtight' of the 1970s and '80s. One-third higher efficiency – meaning one-third less fuel, less cost and less lifting of firewood – is a good reason to consider using an advanced technology wood burner.

Good fuel is the next step. Firewood must be dry for efficient, smoke-free wood heating. The moisture content of standing trees is between 35 and 50 per cent. After being cut to length, split to the right size and stacked in the open exposed to wind and sun for at least six months for softwoods and at least a year for hardwoods, the moisture should be under 20 per cent. This seasoned wood lights quickly and burns steadily without smoking. Not only that, but less wood is needed for a winter of heating if the fuel is dry.

Finally, the way you operate the stove, fireplace or furnace can have a big effect on how much smoke you make. Here are some tips on smoke-free wood burning. Never let the wood smoulder; it should flame brightly until it is reduced to charcoal. Don't add a log an hour in an attempt to produce steady heat. Wood burns best in cycles, so load at least three pieces at a time. Split your wood into a range of sizes from about 3" (7.5 cm) to no more than 6" (15 cm) in diameter. In mild spring and fall weather, split your wood smaller and use smaller loads of wood.

You can do your part for the environment by burning wood without making smoke. Next time your wood stove is running, step outside and see if there is smoke coming from the chimney. If there is no smoke, you should feel good about burning wood.

You will find many more great tips on high efficiency wood heating on the Wood Heat Organization web site at www.woodheat.org.

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