



IS USING WOOD FOR HEATING ENVIRONMENTALLY FRIENDLY?

Yes...

>>... because it's a plentiful, renewable resource: thanks to sustainable development, forestry areas are being extended all over Europe.

Firewood is, after all, only a by-product; it is produced by chopping up branches that are of no value for sawmills, and young trees that have had to be cut down to thin out the forest and allow more useful plants grow. The consumption of wood, which was not very cost-effective at a time when cheap fossil fuels were available, is now economically viable, helps to create local jobs, and encourages better forestry maintenance. Last but not least, it reduces our energy dependency.

Under the Kyoto Accords, Europe has set itself a target of 20% renewable energy by the 2020 horizon. The use of wood for heating will certainly be encouraged.

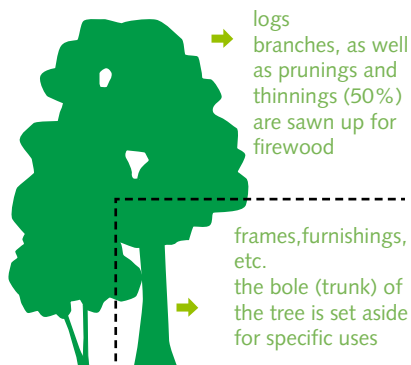
But...

>>... you have to select a high quality fireplace with high efficiency and low discharges into the air.

Efficiency means the part of the energy consumed which will actually be used to heat the home. For good efficiency, you need to have – among other things – a high temperature fire, as this will guarantee virtually complete combustion of both wood and smoke.

In addition to CO₂ (the greenhouse gas just mentioned) and water vapour, the smoke from wood fires contains a series of pollutants, the worst of which are CO and fine particles. CO (carbon monoxide) is a colourless, odourless, toxic gas that reduces the capacity of the blood to oxygenate the tissues, which can lead to cardiac problems.

The fine particles form a microscopic dust which is found in exhaust gases and in the smoke produced by industry (including steelworks) and heating; this dust, which is too small to be filtered by the nostrils, is thus inhaled deep into the lungs, and can cause serious respiratory problems.

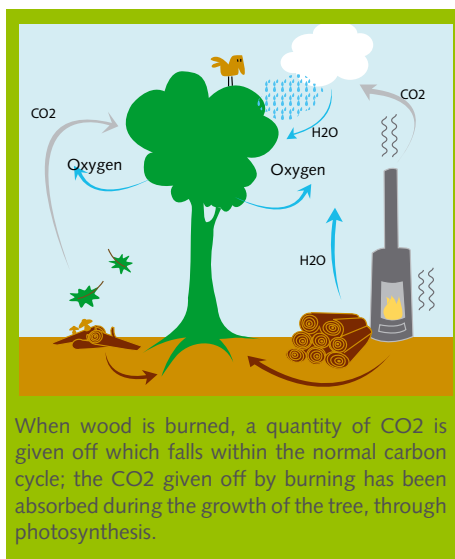


Firewood is a by-product of forestry production

>>... because dendroenergy does not contribute to the production of greenhouse gas.

The carbon dioxide (CO₂) emissions from burning wood are equivalent to those created by the natural decomposition of the wood. In addition, as they grow, trees absorb carbon dioxide (CO₂) from the air. The one offsets the other.

Using 4 m³ of wood will save 1 tonne of oil and prevent the emission of, on average, 2.5 tonnes of CO₂ into the atmosphere. (Source: ADEME) So wood energy does not contribute to producing greenhouse gas.



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>> Nowadays, fireplace and wood-burning stove efficiency and CO emissions are measured by certified bodies, to European standards.

It has been demonstrated that the quality of combustion considerably reduces emissions of CO and fine particles.

The pollution caused by wood heating is mainly due to open fires and old stoves whose performance is poor (10% efficiency) in comparison with current-day fireplaces, which have to comply with very strict standards. (See the website of the French environmental and energy control agency, on www.ademe.fr)

This is why government authorities throughout Europe are encouraging renovation of the wood stock, each in their own way.

>>... **the fireplace selected has to be appropriate for the space to be heated**, and it must work as often as possible in optimum conditions.

The fitter will advise the customer on the type of fireplace, its power according to the area to be heated, the type of building structure, and how

it is to be used (ornamental, top-up heating, basic heating, etc.).

The chimney flue also has a decisive effect on the efficiency of the fire.

>>... **Over to you!**

Burn thoroughly dry wood: burning wood that is damp or still green reduces efficiency and increases pollution emissions.

The tree species used is also decisive.

For further information, see <http://www.stuv.be/fr/StuvQuelsBois.cfm>

Avoid low settings: efficiency is reduced and emissions increase. It's better to have a good flame that also burns the noxious gases.

output for increasingly well-insulated homes.

And to do all this, while preserving the pleasure of a fine flame!

And all this work is bearing fruit:

- Efficiency is increasing (to 88% for the Stûv 30-in, the most widely-sold fireplace in the range).

- CO emissions do not exceed 0.30% for any model (the maximum admissible in Belgium at present is 1%).

They will even be below 0.12% for the Stûv 30-up, which will be on the market at the end of 2008.

>>... **And tomorrow**

All fireplaces sold by Stûv will be more than 80% efficient, with CO emissions below 0.12%, and will give off less than 75 mg of particles per m³.

In addition to these improvements, Stûv will be developing fireplaces and accessories which will make it easy to use wood for heating every day, and building a range for all uses, from top-up heating to the main source of heat.

Bois-de-Villers, 20-02-2008

AND STÛV?

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>>... **Since the very beginning**

... Stûv has taken care to manufacture efficient fireplaces.

Stûv 60, the very first Stûv, designed almost 25 years ago, has just passed the European Standard conformity tests. Without any significant modifications having to be made, it achieved 75% efficiency!

>>... **Today**

All Stûv fireplaces have been tested to European standards; you can see the full results on www.stuv.be > standards and efficiency.

Stûv are working tirelessly to perfect combustion systems, improve efficiency, reduce CO and particle emissions, and develop fireplaces with the right

