Cover story

Wood stoves: cosy, hot . . . and green

COVER AND BELOW: TIMES PHOTOGRAPHER, NICK RAY

Winter warmer: Stuart-Smith feeds her new companion and, below, the handy gadget that checks whether the logs are sufficiently dry to burn well

Far from being outdated, a wood stove is the perfect modern solution, says **Jennifer Stuart-Smith**

It is generally agreed that one should think carefully before getting a pet. But I have no regrets. The new addition to my home requires regular, small feeds and gets cleaned out once a week. In return, I get constant entertainment and a warm welcome when I come downstairs in the morning. Who'd have thought that a wood stove could be so good for the soul?

As well as my soul, it has transformed my house from a cold, unappealing structure, where woolly hats were worn in bed, to a warm, inviting place with a cosy living room-cum-kitchen at its heart. The bedrooms are still cool, but you can feel the rush of warm air coming up to the landing. My Burley 8kW stove, which was made in Rutland, is a highly efficient, sustainable source of heat and an effective way to make my home comfortable this winter.

Before having the stove fitted, I put in loft insulation, paid for by government funding and made using recycled glass bottles. I then put insulation boards between the rafters in the cellar to stop cold air whistling through the floorboards. The difference was immediately noticeable, but my home was still not exactly cosy when outside temperatures fell below zero. This was brought to the fore when, for a week before the stove was fitted, I simply had a gaping hole where the fireplace used to be.

When the 1970s fireplace was ripped out, we uncovered an impressive chimney — perfect for Santa and for helping a wood stove to draw — as well as a large fireplace and chimney breast, made from sturdy local bricks. Tearing the plaster off the chimney breast was a gamble. If, as could have been the case, we had found cheap, yellow bricks, we would simply have replastered it. Instead, it's now a key feature, sitting over matching reclaimed hearth bricks set in lime mortar.

Although my fireplace is quite large, this should not be the deciding factor as to which stove you choose. Graham Thornhill, who owns Cosi Stoves in Canterbury, Kent, came to do the initial assessment of my living room and home. According to Thornhill, there are several factors that need to be considered when deciding what size of stove you need: "I'll look at the size and height of the room, the age of the property and its insulation levels, and whether there is a staircase leading directly from the room." My stove in a modern house would be unbearably hot, he told me.

You also need to think about how much space you have to store wood as the bigger the stove, the more fuel it will burn. "Ideally, you'll be getting through about 3 cubic metres of wood per winter season, but that's if it's sufficiently dry."

The key, Thornhill says, is not what kind of wood you burn (although you should never use chemically treated or painted timber) but that its moisture content is less than 20 per cent. If you can dry your wood, or buy dry wood, you will more than double its burning efficiency; firewood of less than 20 per cent moisture will give up to 4.5kW of energy per kg, but output drops to less than 2kW per kg if the moisture content exceeds 30 per cent.

I was given a moisture tester with my stove, which, when I stick the metal probes into my firewood, makes me feel like a real aficionado. Also, knowing that almost any wood is useable opens up a wealth of possibilities. A recently felled Leylandii hedge, which I thought was good for nothing, will be prime firewood once it has been kept in dry storage for a couple of years.

Although you can use any wood, a stove likes a mixed "diet". Pine is OK, although you need more volume of this soft wood to match the amount of energy produced by hard woods such as apple, and if your fire doesn't get hot enough, the resin can clog up the flue. But, if you mix one part pine to two parts chestnut, for example, you'll get a longer burning, hot fire that will combust the pine resin. A sufficiently hot fire will also burn any residue from the inside of the glass door so you get a clear view of the flames.

After my wood stove was fitted (costing just over £1,000 for the stove and fittings and just under £1,000 for lining the chimney), Thornhill gave me a lesson in getting the most from my fire: from not overloading the stove to setting the air vent at the right level to ensure efficient burning. Load up the fire with too many logs and they will not get enough oxygen. Too much oxygen from an open air vent will produce a ferocious flame and a lot of heat will be lost up the chimney.

Ideally, you should run the stove hard for at least 20 minutes to create a bed of hot charcoal, then add a log or two, approximately every hour. It's a task that's a lot more satisfying than simply turning up the central heating and waiting for the bill. Depending on your access to firewood, a wood stove is an economical alternative to oil or gas central heating and you know exactly how much you are burning. It's also more environmentally friendly.

And that's the really good bit: you can cultivate a warm inner glow from knowing that you are using a local, sustainable fuel.

Matt Pitts, the woodland officer for the High Weald Area of Outstanding Natural Beauty, near where I live in Kent, is keen to promote the benefits of using wood as fuel: "Buying and using local wood is a win-win situation. You're supporting the local economy and also encouraging the management of woods, which in turn improves them for wildlife."

What is more, if woods are managed correctly, there should be a limitless supply of logs. How reassuring as we deal with a really cold snap. I look forward to sitting in front of the swirling flames and throwing the odd log on to the glowing coals. Who says it's not easy being green?

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Top tips for fitting a wood-burner

- **Visit a few local dealers, or look online, to decide what "look" of stove you want. A reputable dealer should visit your home to assess the suitability of your choice. New woodburning stoves range from £500 to £1,000**
- **Make sure that you get a stove that is CE certified. This means that it meets European standards on pollution levels and has been tested for efficiency and energy output. The CE approval is shown on a plate attached to the stove.**
- **If you are in a "smoke-free zone", you can still have a stove that is certified by the Department for Environment, Food and Rural Affairs for use in such areas.**
- **If your stove is more than 5kW in power output, an air vent to the outside of the house must be installed.**
- **By law, all stoves must have a carbon monoxide sensor, which should be fitted between 1m to 3m horizontally away from the stove. This should be on the ceiling, at least 300mm away from the wall, or as high as possible on the wall but not within 150mm of the ceiling.**
- **Buy yourself a moisture tester for logs if one is not supplied with your stove.**

cosi.co.uk, 01227 787587; burley.co.uk, 01572 756956; energysavingtrust.org.uk, 0300 1231234; National Association of Chimney Engineers, nace.me.uk