

# Efficient use of your wood heater

EARTH FIRST

by Phil Stevenson, ECCO

Many of us love the warmth and atmosphere created by our wood fires. However, we must remember that wood fires can cause unnecessary air pollution, create an environmental nuisance for our neighbours, and can be very wasteful if wood is burnt inefficiently.

Wood is a natural and renewable material that when fully combusted at high temperatures, produces mainly water vapour, carbon dioxide and mineral ash. However, at low temperatures, smouldering wood fires will emit lots of smoke, soot, particles, odours, carbon monoxide and a range of toxic compounds that adversely affect air quality. This can cause serious health problems in the community, including cardiovascular problems and respiratory problems such as asthma.

When operating your wood fire, burn the wood at a high temperature and with plenty of air. This will minimise smoke and other noxious products from being released into the atmosphere. Many of the volatile, smoke producing components of wood combustion are minimised when wood is burnt at a high temperature.

Before considering reducing the draft, make sure the wood is well alight and converting into charcoal (a by-product of wood combustion), and always keep air flowing into your fireplace. It is also important to burn any fresh wood with a high flame and plenty of air long enough to allow the wood to combust at a high temperature. This will result in a warm fire that will produce very little visible smoke.

## How to reduce woodsmoke

Reduce woodsmoke pollution in 6 easy steps:

- Always burn small pieces of well seasoned and dry wood.
- Store your wood under cover in a dry ventilated location
- Get a hot fire going quickly using paper, small kindling or fire-lighters
- Open the air vents fully when lighting or topping up the fire, and keep the vents open long enough to allow the wood to burn brightly
- For overnight use, keep the flame bright
- Go outside and check the chimney occasionally to be sure it is not emitting excessive smoke.

Operating your wood fire overnight can produce considerable smoke haze, particularly on still nights, or when a temperature inversion keeps smoke from rising. Always burn your fire overnight with the air vents open, and never burn rubbish, painted or treated timber as it will release poisonous gases.

When buying wood, don't forget to ask the seller to verify that the wood has been aged, and that the wood has come from a certified firewood supplier, as firewood harvesting is destroying some of our most threatened vegetation and animal habitats.

Wood smoke is no joke! Take responsibility for your wood heater. Use it correctly to

minimise the harmful effects of smoke pollution in your neighbourhood and save money on running costs.

For more information, go to:

<http://www.environment.gov.au/atmosphere/airquality/publications/breathe-the-benefits.html> and the NSW Department of Health website

[http://www.health.nsw.gov.au/factsheets/environmental/wood\\_smoke\\_pub.html](http://www.health.nsw.gov.au/factsheets/environmental/wood_smoke_pub.html).

Additional information is available from retailers and Orange City Council.

**Next events for the calendar**

Next weekends article will be on sourcing sustainable fire wood.

World Environment Day – June 5.