Burn Wise
Program of U.S. EPA

EPA Burn Wise Program: Tool to Educate and Empower

Residential Wood Smoke Workshop
March 11, 2020
New Orleans, LA

Presentation Overview

- Burn Wise Tools and Uses
- Wood Moisture Content Guessing Game
- What's working and what's missing?

What is Burn Wise?

- Voluntary Education Partnership Program

- Key Message: *Burn the right wood, the right way, in the right appliance*

- Goals:
  - educate users on how to properly use their wood burning
  - promote upgrades to cleaner burning technologies

Burn Wise Message

Right wood

right way

right appliance

Burn Wise Education Program

- Target audience

  Current and future owners of wood burning appliances

  - Fireplaces
  - Wood Stoves
  - Hydronic Heaters/Outdoor Wood Boilers
  - Forced Air Furnaces
  - Outdoor fire-pits/chimeneas

Changing Behavior: What's in it for me?

- Improved health
- Save time, energy and/or money
- Safety, reduce risk
- Adhere to social norms

Health: Wood Smoke & Your Health Poster

Asthma and Wood Smoke Videos

Videos

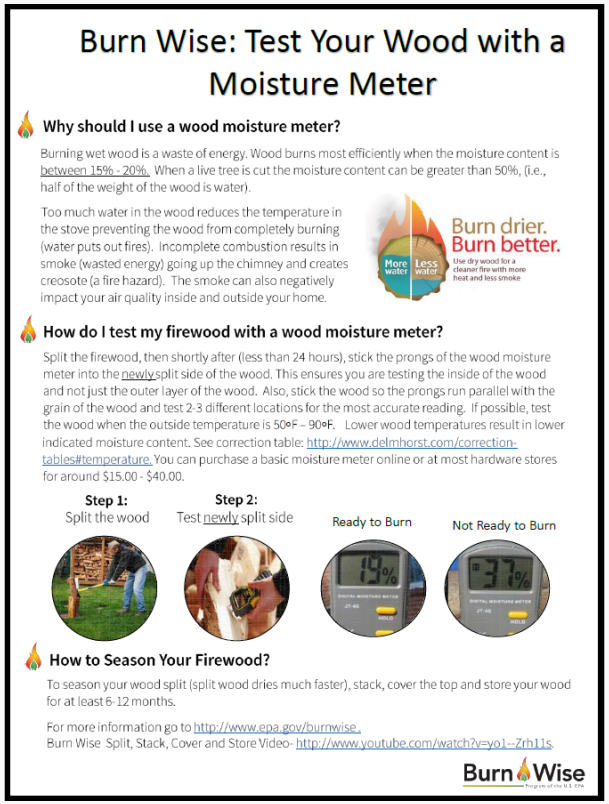
- Wood Smoke and Asthma:
  - Breathe Easier http://www.youtube.com/watch?v=sJQ4IVDDA6Q
  - Reduce Smoke http://www.youtube.com/watch?v=aJXj9j3g7EM
  - Dry Firewood http://www.youtube.com/watch?v=Z-OfbPjXPUU

Time and Money: Wet Wood is a Waste - Brochure and Video

Build a Firewood Storage Shed - Plans and Materials List

Link to video demonstrating how to build this shed: https://www.epa.gov/burnwise/burn-wise-videos

Test Your Wood with a Moisture Meter



Burn Wise: Test Your Wood with a Moisture Meter

Why should I use a wood moisture meter?

Burning wet wood is a waste of energy. Wood burns most efficiently when the moisture content is between 15% - 20%. When a live tree is cut the moisture content can be greater than 50%, (i.e., half of the weight of the wood is water).

Too much water in the wood reduces the temperature in the stove preventing the wood from completely burning (water puts out fires). Incomplete combustion results in smoke (wasted energy) going up the chimney and creates creosote (a fire hazard). The smoke can also negatively impact your air quality inside and outside your home.

Burn drier. Burn better.
Use dry wood for a cleaner fire with more heat and less smoke

How do I test my firewood with a wood moisture meter?

Split the firewood, then shortly after (less than 24 hours), stick the prongs of the wood moisture meter into the newly split side of the wood. This ensures you are testing the inside of the wood and not just the outer layer of the wood. Also, stick the wood so the prongs run parallel with the grain of the wood and test 2-3 different locations for the most accurate reading. If possible, test the wood when the outside temperature is 50°F – 90°F. Lower wood temperatures result in lower indicated moisture content. See correction table: http://www.delmhorst.com/correction-tables#temperature. You can purchase a basic moisture meter online or at most hardware stores for around $15.00 - $40.00.

Step 1: Split the wood

Step 2: Test newly split side

Ready to Burn

Not Ready to Burn

How to Season Your Firewood?

To season your wood split (split wood dries much faster), stack, cover the top and store your wood for at least 6-12 months.

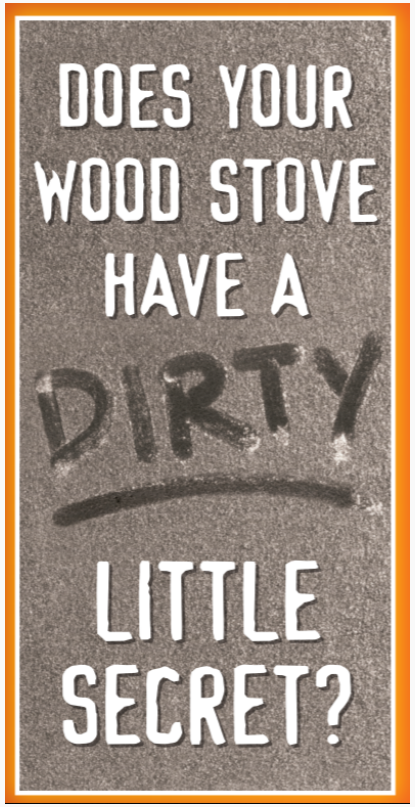
For more information go to http://www.epa.gov/burnwise .
Burn Wise Split, Stack, Cover and Store Video- http://www.youtube.com/watch?v=yo1--Zrh11s

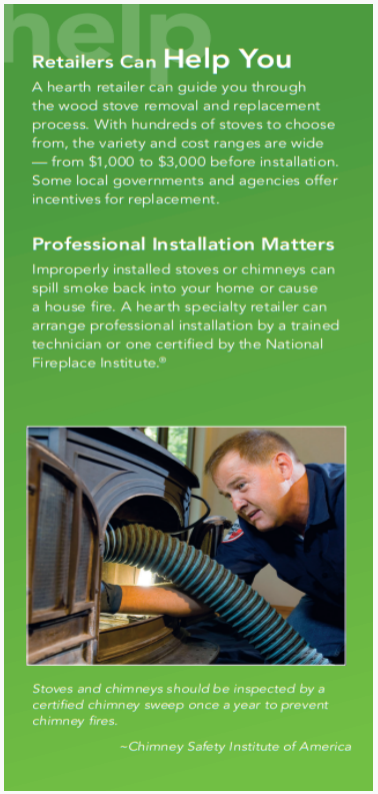
Burn Wise

"How-to" Burn Wise video also available

https://www.epa.gov/burnwise/burn-wise-other-materials

Safety: Does Your Wood Stove Have Dirty Little Secret Brochure





Social Norms: Wood Smoke Activity Book

Who is Promoting the Burn Wise Message?

- EPA Headquarters & Regions
- States, Tribes and Local Agencies
- Chimney Sweeps
- Non-profit Organizations
- Hearth, Patio, and Barbecue Association
- Hearth Retailers & Manufacturers

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How to Apply the Burn Wise Messages

- Make printed educational materials available at all your outreach events
- Post Burn Wise logo and website link on your organization's website
- Share Burn Wise message on social media
  - Post EPA ready-made messages on Facebook and Twitter
- Conduct educational campaign in conjunction with all wood burning appliance replacement programs

High Wood Moisture Leads to Poor Combustion

Photo credit: Hearth, Patio and Barbecue Association

- Ideal combustion, moisture content is between 15%-20%

Wood Moisture

6 lbs of unseasoned red oak at
moisture contains how much water?

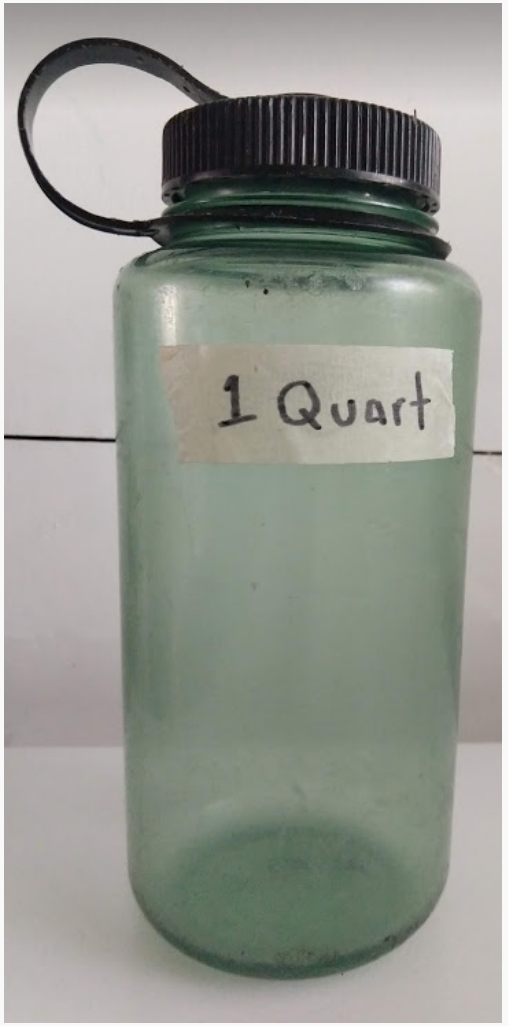

Photo credit: EPA

Wood Moisture

36 lbs of unseasoned red oak at
45% moisture contains approximately 2 gallons of water

Photo credit: EPA

What do we use to put out fires?

Burn Wise Program and Educational Tools

- What's working and what's needed?
- How can Burn Wise support you?