

EPA Burn Wise Program Overview

**Conference on Long-Range Transboundary Air Pollution
(LRTAP) Working Group on Strategies and Review**

**Thematic Session on Solid Fuel Residential Heating as a
Source of Air Pollution and Short-Lived Climate Forcers**

**Geneva, Switzerland
May 24, 2018**

What is Burn Wise?

- Key Message:
Burn the right wood, the right way, in the right appliance
- Goal:
 - Promote upgrades to cleaner burning technologies
 - Educate users on how to properly use their wood burning appliance

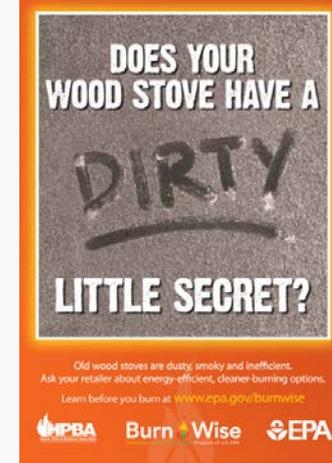
Wood Burning Appliance Replacement Projects: Lessons Learned

- Need local champion or organization to lead changeout
- Seek out partners (hearth retailers, fire departments)
- Require professional installation
- Necessary funding incentive levels will vary from place to place
- Funding for administration is important (10%-15%)
- Verify destruction of stove
- *Training on how to use new wood burning appliance is critical*

What Burn Wise Materials are Available?

- Tip Sheet
- Posters
- Brochures
- Tear Pads
- Wood Shed Construction Plans
- Videos

* Free hard copies are currently available for most tools



Wood Moisture

19.5 kg of green sugar maple with approx. water content



Wet Wood Is A Waste Brochure



<https://www.epa.gov/burnwise/burn-wise-brochures>

Firewood Storage Shed - Construction Plans and Materials List

Burn Wise
Program of U.S. EPA

Build a Firewood Storage Shed

- Holds about one cord of wood
- Light enough to move by hand
- Easy to fabricate with mostly straight cuts and no mitered corners or joints
- Uses outdoor treated wood for the structure and liquid roofing primer for the roof
- Connectors and fasteners are galvanized
- Roof and sides are finished to owner specifications (e.g. composition, metal, wood shakes, etc.)
- Footings provided by owner (concrete post bases or pavers)

\$270
Wood Shed
(price dependant on locality)

www.epa.gov/burnwise



Wood Shed Material List

ITEM	QTY	DESCRIPTION	UNIT COST	SUBTOTAL
2" x 6" x 8" Treated Pine	2	Floor Frame	\$5.27	\$10.54
1" x 4" x 8" Treated Pine	13	Floor Slats, Side & Back Slats	\$4.97	\$64.61
2" x 4" x 8" Treated Pine	8	Floor Frame, Joists, Roof Rafters	\$3.37	\$26.96
4" x 4" x 12" Treated Pine	3	Posts	\$13.17	\$39.51
4" x 8" x 1/2" CDX Plywood	3	Roof	\$15.77	\$15.77
1/2" x 5" Hex Lag Screws	12	Secure posts to 2" x 6" 2" x 4" Floor Frame	\$0.54	\$6.48
3" Galvanized Deck Screws	1lb. Box	Secure Floor Frame, Joists & Roof Rafters	\$9.89	\$9.89
1 1/2" Galvanized Deck Screws	1lb. Box	Secure Floor Slats, Side & Back Slats, Roof	\$9.89	\$9.89
Liquid Roofing	1-5 Gal	Weather Protection	\$47.00	\$47.00
12" Deck Bolts	6	Raise Woodshed off ground	\$6.55	\$39.30
		TOTAL		\$269.95

To view a 6 minute video on how to build this firewood storage shed, go to:

www.epa.gov/burnwise/burn-wise-videos



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

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

Test Your Wood with a Moisture Meter Seasoned or Unseasoned?



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.



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=vo1-Zrh11s>

“How-to” Burn Wise video also available

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

Who is Sharing the Burn Wise Message?

- Hearth Retailers, Manufacturers and Trade Association
- States, Tribes and Local Agencies (S/L/T)
- Chimney Sweeps/Chimney Sweep Institute of America
- Non-profit Organizations (NGOs)
- EPA Headquarters & Regional Offices

Travis Industries – Moisture meter and Burn Wise message provided with every stove



Minnesota State Fair



Partnering with Chimney Sweeps

- Sweeps share Burn Wise message
 - Split, stack, cover and store
 - How to build a wood storage shed
 - How to use a wood moisture meter



Summary and Conclusions

- Supporting reduction in PM_{2.5}
- Strong collaboration with S/L/T, industry & NGOs
- Building capacity of partners to implement Burn Wise Program

Questions/Comments?

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www.epa.gov/burnwise