

The Freshwater Connection

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Recycling Wood Ash in Forests: Good Sense in so Many Ways

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Applying wood ash to soil at a recently harvested forest site. Photo supplied by NRCan/RNCAN

Many residents of central Algoma use wood for heating their home or camp and it is estimated that over half a million Ontario homes have wood stoves. As cleaner and more efficient wood burning appliances become available, more homeowners are considering moving away from fossil fuels as a method to meet their heating needs. The forests of central Algoma represent an abundant source of energy for our region. If forestry is done using good practices then wood can be considered a renewable resource and heating with wood can be part of the solution to global climate change. The convenience of new pellet stoves that feed fuel as needed and the

financial savings that can be achieved by burning wood rather than using electricity, natural gas, oil or propane are other reasons that people use wood for heating.

As wood is burned, ash is produced. Many wood stove owners have their own methods to dispose of the ash; using it on their driveway to give traction and melt ice, adding to the garden to make Mom's tomato plants grow better, composting with organic materials or spreading in the forest. All of these options are better than just dumping it behind the barn or putting your ashes in the trash bag and hauling it to the landfill. Reducing our waste and recycling materials saves the municipalities we live in and us tax dollars and is good for the environment. For the last few years researchers at the Great Lakes Forestry Centre in Sault Ste. Marie have been leading a national network called AshNet that has been investigating the potential for improving forest health by applying wood ash to forest soils.



Example of wood ash application rates to forest soils. .Photos supplied by NRCan/RNCan

Wood ash is very alkaline (high pH 9-12) and contains many important nutrients required for plant growth including phosphorous, potassium, calcium and magnesium. Most of the nitrogen in wood is lost through the burning process. Wood ash can also contain harmful trace metals such as arsenic, cadmium and chromium but ash that comes from the burning of "clean" wood, that is wood that is not contaminated with preservatives or from construction waste, has been shown to have levels below limits established for soil amendments in Canada. The addition of wood ash to forest soils helps to improve soil fertility and has been shown to increase tree growth. Improving soil and forest conditions also has added benefits for the health of streams, rivers and lakes that we all appreciate here in central Algoma. Healthy, productive forests protect our surface waters by maintaining the native species of plants and animals that live there.

Recommendations for spreading wood ash in the forest

1. Use only completely extinguished ash produced from the burning of “clean” wood. Do not apply ash produced from the burning of pressure treated wood or construction waste that could include contaminants such as nails, drywall, insulation, plastics, etc.
2. Sprinkle the ash evenly across the soil surface making sure not to dump it all in one area (see photos). Each year spread the ash across a different area of your property.
3. Do not spread the ash in areas immediately adjacent to surface water. Do not spread the ash into ponds, streams or lakes directly. Spread only on the soil.

More information on AshNet including publications and presentations from the project can be found here: <https://www.nrcan.gc.ca/science-and-data/research-centres-and-labs/forestry-research-centres/great-lakes-forestry-centre/ashnet/20279>

Mulching Leaves With a Lawn Mower

Fall colours are a joy to see but eventually the leaves fall to the ground where they decompose and restock the soil with nutrients and organic matter. Have you ever considered mulching leaves with a lawn mower?

When leaves fall on rocks, streets and into storm drains nutrients can feed unwanted algae growth. Blowing or raking leaf litter into lakes, storm drains and ravines can have a negative impact on lake water quality.

Research (Leaf Mulching Effects on Turf Performance)

<https://www.agry.purdue.edu/turfnew/report/1999/page24.htm> has shown that an effective way to manage deciduous fall leaves and save some raking labour is to mulch leaves with a lawn mower. Pine needles are more resistant to microbial action. They can be gathered and used as mulch.

Below is a resource video by Michigan State University Turfgrass Science

<https://www.youtube.com/watch?v=2lj1ZydTEYc>



Autumn Tree Planting

If you are like me - this is the time of year where you find oak and maple trees growing in your garden. The autumn can be a good time to transplant these deciduous trees

<https://treecanada.ca/resources/tree-planting-guide/>. Trees retain soil and sediments compared to open fields, and take up the available nitrogen and phosphorus, as well as store carbon. This can benefit water quality and help with climate change. If you have composted or mulched your leaves – you may want to add compost to the soil and protect your tree from competing vegetation with mulch.

Climate Change

There has been a lot of action recently around climate change. CAFC had earlier reviewed the book ***Drawdown – The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*** – edited by Paul Hawken – if recent protests have re-sparked your interest you may want to find a copy of this book. The plan is available it just requires action.



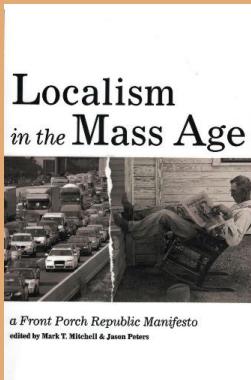
Climate change is a human caused problem that is only going to be solved by changes from individual humans asking too much of the environment. Perhaps rather than trying to change others we only need to change ourselves.

How might this occur – may be answered in the attached Ted Talk on Sustainability
https://www.ted.com/talks/rob_hopkins_transition_to_a_world_without_oil?language=en

Become a Member

Your annual membership fee will provide a base budget for work of CAFC and demonstrate the commitment of local partners working towards a common goal. A strong diverse group is an essential component in meeting the goals of the Central Algoma Region. Support us at <https://www.centralalgomafreshwatercoalition.ca/>

Book Review



When many leaders have abandoned the pretense of conserving anything - there is the need to articulate a better vision of humanity. The book in 30 essays about the delusional vision of unlimited resources that is perpetuated by mass consumerism and provides an alternate vision of human flourishing.

Localism in the Mass Age - a Front Porch Republic Manifesto, edited by Mark T. Mitchell & Jason Peters, Front Porch Republic Books

