

An (Un) Neighbourly Nuisance  
by Michael Jessen

Nuisance - noun. Anything that annoys, bothers, or irritates.  
(Funk & Wagnells Standard Desk Dictionary)

Spring brings out the nuisance in some of my neighbours. The problem is they like to burn outdoors and burning annoys, bothers and irritates me.

Of course they're only doing it on their own property what they've always done and no law prohibits it here in my rural area. While many municipalities have banned backyard burning altogether, regional districts have been slow to enact legislation to protect people like me from this nuisance.

Take my neighbour down the highway. He likes to burn his dry old grass every spring. Says it encourages new growth. Trouble is the smoke curls and twists as it dances in the wind and finds its way to my land.

Now the fellow across the highway likes to burn his leaves. He rakes them into a big pile and it smoulders as he torches the autumn molt from his trees. Once again the smelly smoke searches for my property and my nasal passages announce its arrival.

Just the other day a neighbour across the lake decided to cremate some land clearing debris. The smoke rose in a thick plume then wandered a mile down the lake, hovering like a thin gray carpet a few hundred feet above the water. And it was such a pleasant, sunny spring day until he decided to foul the air.

Great writers have written poetry about air. Gerald Manley Hopkins describes it as a "wondrous robe" that wraps the planet. He calls it "world-mothering air" because without it all living things - plant, animal, and human, would die. In "Song of Myself" Walt Whitman writes "This is the common air that bathes the globe."

Yet humans think so little of something so fundamental. Breathing is an involuntary, reflex action that adults do about 19,000 times a day. In an average lifetime, air will wash into our lungs 650 million times, give or take.

Without air humans are unconscious within four or five minutes and dead in about ten.

We all "own" the air, but I guess I put a higher value on clean air than my neighbours do. I surmise we also have a difference of opinion about the "use" of our common air. Am I wrong to expect the air flowing over my property's boundaries to be identical no matter which way the wind is blowing?

My neighbour will respond with his own question, "Well what's wrong with a little temporary air pollution?"

Well, neighbour, I'm glad you asked. First, let's define air pollution. It's the contamination of air by smoke and harmful gases, mainly oxides of carbon, sulfur and nitrogen.

It is estimated that three million people indirectly die of air pollution each year worldwide. Direct causes of air pollution-related deaths include aggravated asthma, bronchitis, emphysema, lung and heart diseases and other respiratory allergies.

Public health experts calculate that air pollution is responsible for 16,000 premature deaths in this country each year; at this rate, forty Canadians die from air pollution causes each and every day.

Air pollution also increases hospital admissions, lost days at work and school, and has been linked to higher mortality rates from other diseases, including cancer.

In a study just published in the American Journal of Respiratory and Critical Care Medicine, Dr. Francine Laden of the Harvard Medical School writes that people live longer in cities that reduce levels of PM2.5 fine particulate matter, defined as having a diameter of 2.5 microns or less – narrower than the width of a human hair. (An abstract of her study can be found at <http://ajrccm.atsjournals.org/cgi/content/abstract/173/6/667>)

According to the National Center for Environmental Health (<http://cdc.gov/nceh/airpollution/fires.htm>) smoke from outdoor fires is unhealthy for me to breathe. Smoke can cause persistent cough, phlegm, wheezing and physical discomfort in breathing. It can also cause shortness of breath and tightness in my chest and can sting my eyes, nose and throat. It may affect my lungs, liver, kidneys, nervous system and immune system.

These problems begin a very short time after I breathe the smoke. Infants, children, pregnant women, older adults and people with chronic diseases such as asthma and other acute respiratory diseases are at greater risk from smoke.

Exposure to the burning of leaves and other yard wastes can exacerbate the health problems of those with asthma, emphysema and other respiratory ailments. Burning of green wastes creates particulate matter, toxic air contaminants, greenhouse gases and ozone forming pollutants. The human body, just like the planet, accumulates the toxins and particulates in smoke so repeated exposure increases the chances of health risks.

In case you're wondering, neighbour, one pound of air pollution is created for every five pounds of leaves burned.

Now you ask, "What's in the smoke that's so bad for our health?"

Excellent question. The answer is carbon dioxide, water vapor, carbon monoxide, particulate matter and a host of designated hazardous air pollutants – the most common and dangerous are acrolein, benzene and formaldehyde.

Carbon monoxide enters the bloodstream through the lungs and reduces oxygen delivery to the body's organs and tissues. The health threat is most serious for those who suffer from cardiovascular disease. At higher levels, carbon monoxide exposure can cause headaches, dizziness and visual impairment, reduced work capacity and reduced manual dexterity even in otherwise healthy individuals.

Particulate matter is a general term for a mixture of solid particles and liquid droplets found in the air. Particulate from smoke tends to be very small and is a health concern since it lodges deep in the lungs where it accumulates and is never expelled.

Acrolein is an aldehyde with a piercing, choking odour. Even at low levels, acrolein can severely irritate the eyes and upper respiratory tract. Symptoms include stinging and tearing eyes, nausea and vomiting.

Benzene causes headaches, nausea and breathing difficulties and is a very potent carcinogen. Benzene causes anemia, liver and kidney damage and cancer.

Low level exposure to formaldehyde can cause irritation of the eyes, nose and throat. Higher levels cause irritation to spread to the lower respiratory tract. Long term exposure is associated with nasal and nasopharyngeal cancer.

No, neighbour, the bottom line is your outdoor burning may be slowly killing me and others in our neighbourhood. I've given you a lot of information about why clean air is important to human health and the health of our planet. I hope I've made you care about this nuisance of yours.

Denial is one of humanity's most powerful emotions. It is amazing that we continue to do things to the environment that are not in our best interests.

One last question neighbour. "Would you care to stop burning now?"

RESOURCES – An excellent resource for information about air pollution is <http://www.answers.com/topic/air-pollution>

The Lung Association of British Columbia's report The State of the Air in British Columbia 2005 can be downloaded from <http://www.bc.lung.ca>

A BC government pamphlet about the dangers of burning vegetation can be found at <http://www.env.gov.bc.ca/air/particulates/bbsqiyea.html>. A link on that site can be found for a Model Municipal Bylaw for Regulating Backyard Burning.

The publication cleanair.ca : acitizen's action guide is authored by the Environmental Law Centre at UVic and published by the Sierra Legal Defence Fund. It is available at <http://www.cleanair.ca>. The web site states that virtually all of the ambient standards for air

quality in Canada take the form of non-binding guidelines; and many of these guidelines are based on science that is at least two decades old.

The Canadian group Clean Air Foundation (<http://www.cleanairfoundation.org/>) has partnered with Home Depot for the Mow Down Pollution campaign – recycle your old gas mower or trimmer at any of the 139 Home Depot Canada locations between April 20 and April 30 and you'll receive an instant rebate of between \$10 and \$100 on the purchase of a new, cleaner alternative mower or trimmer. Small two-stroke gasoline engines are estimated to produce 10% of Canada's greenhouse gases.

June 7, 2006 will be Clean Air Day in Canada (visit this Environment Canada web site [http://www.ec.gc.ca/cleanair-airpur/Clean\\_Air\\_Day\\_WSB5959A4A5F-1\\_En.htm](http://www.ec.gc.ca/cleanair-airpur/Clean_Air_Day_WSB5959A4A5F-1_En.htm) for more info.

Did you know that the average Canadian produces about 5 tonnes of greenhouse gases every year? The burning of fossil fuels to power our cars, heat our homes and run our appliances creates greenhouse gas emissions and other air pollutants that contribute to poor air quality and climate change. If you want to make a difference, visit the Government of Canada's One Tonne Challenge web site at [http://www.ec.gc.ca/cleanair-airpur/Taking\\_Action/Participation\\_Initiatives\\_and\\_Resources/One\\_Tonne\\_Challenge-WS36AB44C8-1\\_En.htm](http://www.ec.gc.ca/cleanair-airpur/Taking_Action/Participation_Initiatives_and_Resources/One_Tonne_Challenge-WS36AB44C8-1_En.htm)

and learn how you can reduce your emissions of greenhouse gases by one tonne (or about 20%) while at the same time lowering emissions of smog-causing air pollutants.

Four books worth reading: *Gasp! The Swift and Terrible Beauty of Air* by Joe Sherman (Shoemaker Hoard, 2004) is an unofficial history of air. *When Smoke Ran Like Water* by Devra Davis (Basic Books 2002) confronts the public health community's long battle against environmental pollution. *Something New Under the Sun* by J R McNeill (W W Norton and Company, 2000) is subtitled *An Environmental History of the Twentieth-Century World*. *The Sacred Balance – Rediscovering Our Place in Nature* by David Suzuki and Amanda McConnell (Greystone Books 1997) has a magical chapter on the importance of air to planetary life.

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