

# Case for a Cosmetic Pesticide Ban on Bowen Island

Local authorities around the world are going pesticide-free following an initiative by the small town of Hudson in Quebec, Canada (Pop 5,135) in 1991.

Over 180 towns in Canada - including big cities like Vancouver - have similar by-laws and eight of the ten provinces in Canada have introduced legislation banning some or all pesticides for cosmetic purposes such as lawn and garden beautification.

Read more at <https://theecologist.org/2015/oct/06/pesticide-free-towns-and-cities-citizen-power-action>  
<https://cnla.ca/uploads/pdf/Pesticide-Regulation-Across-Canada.pdf>



Photo by Phil Gregory

## Interview with Dr. Bruce Lanphear, Health Sciences Professor, Simon Fraser University

“We’ve made so many mistakes over the past century.

- First, we liberally sprayed our orchards and farms with lead arsenate until it was found to be toxic.
- Next, we doused them with DDT until it was found to be dangerous.
- Then we sprayed our farms and gardens with organo-phosphate pesticides. Oops, they are poisonous!
- Today, widespread applications of pyrethroids, neonicotinoids and glyphosate are growing even as new evidence shows they are toxic too.”

“In the meantime, we’ve learned that we don’t need pesticides to feed the world or to make our gardens pretty.”

“Why do we keep using toxic chemicals on our farms and in our gardens? It isn’t enough for scientists to speak out, we need the public to stand up and demand change. Our leaders need our help to protect us and our children from toxic chemicals.”

A Beyond Pesticides Factsheet – A Beyond Pesticides Factsheet – A Beyond Pesticides Factsheet – A Beyond Pesticides Factsheet

## Health Effects of 30 Commonly Used Lawn Pesticides

	Health Effects						
	Cancer	Endocrine Disruption	Reproductive Effects	Neurotoxicity	Kidney/Liver Damage	Sensitizer/Irritant	Birth Defects
<b>Herbicides</b>							
2,4-D*	X <sup>4</sup>	X <sup>10</sup>	X <sup>7</sup>	X <sup>8</sup>	X <sup>8</sup>	X <sup>1</sup>	X <sup>11</sup>
Benfluralin					X <sup>1</sup>	X <sup>1</sup>	
Bensulide				X <sup>2</sup>	X <sup>1</sup>	X <sup>2</sup>	
Clopyralid			X <sup>7</sup>			X <sup>2</sup>	X <sup>7</sup>
Dicamba*			X <sup>1</sup>	X <sup>2</sup>	X <sup>2</sup>	X <sup>1</sup>	X <sup>1</sup>
Diquat Dibromide			X <sup>12</sup>		X <sup>11</sup>	X <sup>1</sup>	
Dithiopyr					X <sup>1</sup>	X <sup>1</sup>	
Fluazipop-p-butyl			X <sup>1</sup>		X <sup>1</sup>		X <sup>1</sup>
Glyphosate*	X <sup>12</sup>	X <sup>8</sup>	X <sup>1</sup>		X <sup>8</sup>	X <sup>1</sup>	
Imazapyr					X <sup>7</sup>	X <sup>2</sup>	
Isoxaben	X <sup>3</sup>				X <sup>2</sup>		
MCPA		X <sup>6</sup>	X <sup>2</sup>	X <sup>2</sup>	X <sup>11</sup>	X <sup>1</sup>	
Mecroprop (MCPP)*	Possible <sup>3</sup>	X <sup>6</sup>	X <sup>2</sup>	X <sup>1</sup>	X <sup>9</sup>	X <sup>1</sup>	X <sup>1</sup>
Pelargonic Acid*						X <sup>1</sup>	
Pendimethalin*	Possible <sup>3</sup>	X <sup>6</sup>	X <sup>1</sup>			X <sup>2</sup>	
Triclopyr			X <sup>7</sup>		X <sup>9</sup>	X <sup>1</sup>	X <sup>7</sup>
Trifluralin*	Possible <sup>3</sup>	X <sup>6</sup>	X <sup>1</sup>		X <sup>2</sup>	X <sup>1</sup>	
<b>Insecticides</b>							
Acephate	Possible <sup>3</sup>	X <sup>6</sup>	X <sup>11</sup>	X <sup>9</sup>		X <sup>2</sup>	
Bifenthrin*†	Possible <sup>3</sup>	Suspected <sup>6,10</sup>		X <sup>8</sup>		X <sup>1</sup>	X <sup>9</sup>
Carbaryl	X <sup>3</sup>	X <sup>10</sup>	X <sup>8</sup>	X <sup>1</sup>	X <sup>11</sup>	X <sup>11</sup>	X <sup>7</sup>
Fipronil	Possible <sup>3</sup>	X <sup>6</sup>	X <sup>8</sup>	X <sup>8</sup>	X <sup>8</sup>	X <sup>8</sup>	
Imidacloprid ‡			X <sup>7</sup>		X <sup>2</sup>		X <sup>7</sup>
Malathion*	Possible <sup>3</sup>	X <sup>10</sup>	X <sup>11</sup>	X <sup>9</sup>	X <sup>2</sup>	X <sup>2</sup>	X <sup>2</sup>
Permethrin*†	X <sup>3</sup>	Suspected <sup>6,10</sup>	X <sup>1,7</sup>	X <sup>9,7</sup>	X <sup>9</sup>	X <sup>1</sup>	
Trichlorfon	X <sup>3</sup>	X <sup>6</sup>	X <sup>11</sup>	X <sup>2</sup>	X <sup>2</sup>		X <sup>2</sup>
<b>Fungicides</b>							
Azoxystrobin					X <sup>2</sup>	X <sup>2</sup>	
Myclobutanil		Probable <sup>5</sup>	X <sup>2</sup>		X <sup>2</sup>		
Propiconazole	Possible <sup>3</sup>	X <sup>6</sup>	X <sup>2</sup>		X <sup>1</sup>	X <sup>1</sup>	
Sulfur						X <sup>1</sup>	
Thiophanate methyl	X <sup>3</sup>	X <sup>1</sup>	X <sup>1</sup>	Suspected <sup>1</sup>	X <sup>1</sup>	X <sup>2</sup>	X <sup>1</sup>
Ziram	Suggestive <sup>3</sup>	Suspected <sup>6</sup>		X <sup>2</sup>	X <sup>2</sup>	X <sup>2</sup>	
Totals:	16	17	21	14	25	26	12

U.S. data: 25 of these pesticides are registered for use in Canada. An ‘X’ in the columns above indicates a documented health effect. The numbered superscript refers to the citation in the link below.

<https://www.beyondpesticides.org/assets/media/documents/Health%20Effects%2030%20Lawn%20Pesticides.pdf>  
<https://www.beyondpesticides.org/assets/media/documents/lawn/factsheets/30enviro.pdf>

## BC Municipalities with Pesticide Bans (Bowen Island can be next)

Vancouver (2006)	Surrey (2010)	Burnaby (2008)
Richmond (2009)	Coquitlam (2012)	Kelowna (2008)
Saanich (District) (2010)	Delta (District) (2009)	Kamloops (2009)
North Vancouver (2009)	Nanaimo (2010)	Victoria (2008)
Maple Ridge (2006)	New Westminster (2009)	Port Coquitlam (2011)
North Vancouver (2009)	West Vancouver (2005)	Port Moody (2003)
Langley (2012)	Courtenay (2007)	White Rock (2009)
Oak Bay (2011)	Pitt Meadows (2011)	Salmon Arm (2011)
Esquimalt (District) (2008)	Comox (2006)	Terrace (2011)
Nelson (2007)	Whistler (District) (2008)	Sechelt (District) (2008)
Qualicum Beach (2010)	Revelstoke (2011)	Kimberley (2010)
Fernie (2010)	Gibsons (2005)	Golden (2010)
Cumberland (2006)	Invermere (2009)	Tofino (2009)
Harrison Hot Springs (2010)	<a href="https://cnla.ca/uploads/pdf/Pesticide-Regulation-Across-Canada.pdf">https://cnla.ca/uploads/pdf/Pesticide-Regulation-Across-Canada.pdf</a>	

### Of the 30 lawn pesticides:

- 16 are possible and/or known carcinogens,
- 17 have the potential to disrupt the endocrine (hormonal) system,
- 21 are linked to reproductive effects and sexual dysfunction,
- 14 are neurotoxic,
- 25 can cause kidney or liver damage
- 26 are sensitizers and/or irritants,
- 12 have been linked to birth defects, .

### Of those same 30 pesticides:

- 19 detected in groundwater,
- 20 have the ability to leach into drinking water sources,
- 22 are toxic to birds,
- 30 are toxic to fish and other aquatic organisms vital to our ecosystem,
- 29 are toxic to bees,
- 14 are toxic to mammals.

## Sample Cosmetic Pesticide Ban

### Richmond’s Pesticide Use Control Bylaw

Many pesticides can no longer be used for garden and lawn beautification on residential and City land.

#### Bylaw summary

As part of the City’s Enhanced Pesticide Management Program, Richmond City Council adopted the Pesticide Use Control Bylaw No. 8514 on October 13, 2009, regulating the cosmetic use of pesticides on all residential and City-owned land. The Bylaw is now in full force and effect.

#### How is the Bylaw applied?

The Bylaw restricts pesticide use for cosmetic purposes such as lawn and garden beautification, on residential and City properties. This includes the lawn and garden space of all single- and multi-family residences, along with all playing fields and parks operated by the City.

#### The Bylaw does not apply to:

- management of pests that transmit human or animal diseases
- management of pests that impact agriculture or forestry
- use on buildings or inside of buildings
- A/R properties used for farming, including the residential areas of farms
- land used for forestry, transportation, public utilities or pipelines (except when utilities or pipelines are owned by the City)
- golf courses

#### What is a pesticide?

Pesticide is the general term for any substance designed to suppress unwanted organisms such as insects, weeds and rodents. Pesticides come in many forms and categories including herbicides (for weeds), insecticides (for insects) and fungicides (for fungal diseases).

#### Are all pesticides now restricted?

Most conventional pesticides, including products labelled herbicide, insecticide, fungicide or combined fertilizer/herbicide products (often referred to as “weed and feed”) are now restricted, except:

- Pesticides listed as “excluded” in the provincial Integrated Pest Management Regulation ([www.env.gov.bc.ca/epd/ipmr/](http://www.env.gov.bc.ca/epd/ipmr/)) are still permitted.
- Biological pest controls, which include nematodes, lady beetles and micro-organisms such as *Bacillus thuringiensis* (Bt) bacteria or fungi.

#### How do I know if a pesticide is restricted or permitted?

Read the label. Common active ingredients in most conventional pesticides, such as 2,4-D, Mecoprop, Dicamba, Glyphosate, Carbaryl and Malathion are now restricted under the Bylaw.

However, many safer alternatives are available, effective and exempt from the Bylaw. To help identify these permitted pesticides, look for the “active ingredient” on the product label. If the active ingredient of your product is on the list on the other side of this brochure, it is still allowed by this Bylaw.

#### How do I safely dispose of pesticides?

Pesticides are hazardous substances and must be disposed of properly. The City’s Recycling Depot (5555 Lynas Lane) accepts consumer pesticides bearing both the poison symbol and a Pest Control Product number (maximum 10 litre container). For more information please look for the “Seven Most Common Questions” at the City recycling depot webpage: [www.richmond.ca/recycle](http://www.richmond.ca/recycle)

#### Are there penalties for pesticide use?

The City may ticket residents and businesses that do not comply with the Bylaw. The Bylaw includes escalating fines for the first (\$100), second (\$500) and third (\$1,000) offence. Any violation is an offence punishable upon conviction with a fine up to \$10,000.

If a landscaper or lawn care specialist maintains your property, it is important for you to confirm that they comply with this new Bylaw, together with ensuring they are certified and licensed professionals.

#### How can I learn more about green lawns?

If you are concerned about the impact of this Bylaw on your lawn, watch for the City’s Live Green publications and for free workshops designed to help keep your lawn and garden green without the use of traditional pesticides.

Please call or visit the City website for more information and to learn about upcoming opportunities. Please note, registration for workshops is required and can be done by phone at 604-276-4300 or online at [www.richmond.ca/register](http://www.richmond.ca/register).

#### Who do I contact about this Bylaw?

For your convenience, the online version of the City’s Pesticide Use Control Bylaw No. 8514 is available on the City’s website at [www.richmond.ca/pesticides](http://www.richmond.ca/pesticides). If you have any questions or comments, please call 604-276-4398.



Engineering and Public Works | Environmental Sustainability | Tel. 604-276-4398 | [www.richmond.ca/pesticides](http://www.richmond.ca/pesticides)

[https://www.richmond.ca/\\_shared/assets/infosheet41679.pdf](https://www.richmond.ca/_shared/assets/infosheet41679.pdf)

### List of Permitted Pesticides

Regulated by the City of Richmond’s Pesticide Use Control Bylaw No. 8514.

- Acetic acid
- Animal repellents except thiram
- Anti-fouling paints
- Antisapstain wood preservatives
- Asphalt solids (graining paints)
- Bacillus thuringiensis kurstaki (Btk)
- Bactericides used in petroleum products
- Boron compounds
- Boron compounds with up to 5% copper for insect control and wood preservation
- Bapaicin
- Cleaners
- Corn gluten meal
- D-phenothrin
- D-trans-allethrin (also referred to as d-cis-trans allethrin)
- Deodorizers
- Fatty acids
- Ferric phosphate
- Ferrous sulphate
- Hard surface disinfectants
- Insect bait stations
- Methoprene
- Mineral oils for insect and mite control
- N-octyl bicycloheptene dicarboximide
- Naphthalene for fabric protection
- Paradichlorobenzene for fabric protection
- Pesticides in aerosol containers
- Pesticides registered under the Pest Control Products Act (Canada) for application to pets
- Piperonyl butoxide
- Plant growth regulators
- Polybutene bird repellents
- Pyrethrins
- Resmethrin
- Rotenone
- Silica aerogel also referred to as silica gel, amorphous silica and amorphous silica gel
- Silicon dioxide, also referred to as “diatomaceous earth”
- Silicides
- Soaps
- Sulphur, including lime sulphur, sulphide sulphur and calcium polysulphide
- Surfactants
- Swimming pool algaecides and bactericides
- Tetramethrin
- Wood preservatives

Note: This list is compiled from Schedule 2 “Exempted Pesticides” of the BC Integrated Pest Management Regulation.



### Natural and Permitted Pesticides Solutions to Common Pest Problems

Carefully read the label and follow all instructions and safety precautions when using pesticides

Pest	Natural Solution	Permitted Pesticide Active ingredient (common name)
Ants	Pour boiling water over anthills.	Silicon Dioxide (Diatomaceous Earth), Boric Acid (Borax)
Aphids	Remove with a strong jet of water, physically remove or prune.	Soap (Insecticidal Soap), Fatty Acid, Pyrethrins
Chinch Bugs	Maintain a healthy lawn and dethatch.	Soap (Insecticidal Soap)
Earwigs	Top using rolled up newspaper filled with peanut butter and discard.	Silicon Dioxide (Diatomaceous Earth), Boric Acid (Borax)
Grubs	Maintain a healthy lawn.	Bacillus thuringiensis (Bt), Nematodes
European Chafer Beetle Grubs	Maintain a healthy lawn, consider alternative ground covers and landscaping to turf lawn.	Heterorhabditis bacteriophora nematodes <a href="http://www.richmond.ca/chafer">www.richmond.ca/chafer</a>
Leaf chewers (caterpillars)	Physically remove.	Soap (Insecticidal Soap), Fatty Acid, Silicon Dioxide (Diatomaceous Earth), Bacillus thuringiensis (Bt)
Leafhoppers	Maintain a healthy lawn.	Nematodes
Mealy Bugs	Dab with alcohol on a cotton swab.	Soap (Insecticidal Soap), Fatty Acid
Scale	Scape off stem, prune infested branches.	Soap (Insecticidal Soap), Fatty Acid (in early stages), Mineral Oil (Dormant or Horticultural Oil)
Snails and Slugs	Top by placing a small container filled with honey, beer or yeast solution on the ground.	Silicon Dioxide (Diatomaceous Earth), Ferric Phosphate (iron phosphate)
Blackspot, Rust, Powdery Mildew	On lawn, over seed with good quality grass seed mix. On plants, prune well beyond the affected area. Avoid watering leaves.	Sulphur
Clover	Clover is good for lawns and provides nitrogen.	
Crabgrass (prevention)	Mulch in gardens. In lawns, over seed, raise mower blades to 6 to 9 cm and weed out by hand and/or cut before they go to seed.	Corn Gluten Meal
Creeping Charlie	Over seed, raise mower blades to 6 to 9 cm and weed out by hand.	Acetic Acid (Horticultural vinegar)
Dandelions and weeds in lawn (prevention)	Mulch in gardens. In lawns, over seed, raise mower blades to 6 to 9 cm and weed out by hand and/or cut before they go to seed.	Corn Gluten Meal
Dandelions and weeds in lawn (established)	Mulch in grass, over seed and raise mower blades, and pull out by hand and/or cut before they go to seed.	Acetic Acid (Horticultural vinegar)
Moss	Dig out and aerate lawn. Lower soil acidity level with lime.	Acetic Acid (Horticultural vinegar), Ferrous Sulphate
Weeds in interlocking patio cracks in pavement	Pull out by hand and/or pour boiling water over.	Acetic Acid (Horticultural vinegar)

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Poster Created by Phil Gregory, Professor Emeritus, University of British Columbia  
“The Magic of Soil” <https://www.youtube.com/watch?v=AWILIYsf5ts>