

**Submission to the Standing Policy Committee of Community and Protective Services  
on behalf of the Coalition for Healthy Calgary, Chair Robin McLeod**

**Re: CPS2016-0825 Update on Dandelion Control on City Property, October 14, 2016**

It is interesting and mystifying that council in September 2015 approved spending from its rainy day fund \$1.7 million dollars to “control the visual impact of dandelions on City parks and boulevards” - a weed that is highly adaptable to disturbed sites i.e. the City, is widespread (world-wide that is), can not be eradicated effectively, is not regulated by the Alberta Weed Control Act and causes no adverse economic or environmental damage.

On the positive side the most redeeming aspect of the eventual \$1million dollars spent on the suppression and control program was the “Dandelion Control Public Opinion Research Survey even though the survey, was at times, difficult to comprehend.

The most important conclusion that can be drawn from the survey is that Calgarians have a strong preference for using the least harmful methods of weed control at 53%. Native plant species, salt tolerant grasses, animal assistance such as goats, better and safer horticultural practices, non-chemical weed killers and hand pulling ranked highly with net acceptable ratings ranging from 83% to 46%. The spraying of herbicides was the least acceptable method for controlling weeds – a net acceptable rating of 1%.

The group most dissatisfied with the presence of weeds according to the Public Opinion Research Survey were older, retired homeowners at 38%. But even they, the dissatisfied, were almost evenly split about control methods with 35% preferring methods least harmful to the environment versus using the most effective weed control methods (not defined) at 37%.

It is not surprising that Calgarians are supportive of alternative and environmentally friendly weed controls methods. The highly manicured, golf course type, high chemical input, weed-free lawn and public space are rapidly becoming an ideal of past generations.

The use of toxic chemicals to control unregulated weeds *and their visual impact* is incompatible with the substantial interest amongst Calgarians in local food production, front and backyard urban farming, community gardens, beekeeping and pollinator-friendly landscapes or with the increasing awareness and recognition of the adverse health impacts of pesticides on children, pets and the environment.



A recent poll (August 2016) conducted by oraclepoll Research for the Canadian Association of Physicians for the Environment and Prevent Cancer Now corroborates the strong preference of Calgarians for environmentally friendly, alternative weed control methods. The poll surveyed Albertans, both rural and urban residents, on their attitudes toward pesticides usage and their support for a law *phasing out all but the safest of pesticides* for lawns and gardens.



One-third of every spoonful of food we consume relies on insect pollination.

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The Coalition for a Healthy Calgary is a registered non-profit society under the Corporate Registry Act of Alberta. The coalition of citizens, health care professionals, scientists, landscaping and horticultural professionals, and health and environmental organizations support a least toxic approach to landscape management resulting in healthier Calgarians, pets, wildlife, air, water, and soil.

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## Alberta Pesticide Survey Report





CAPE  
Canadian Association  
of Physicians  
for the Environment  
  
Association Canadienne  
des Médecins  
pour l'Environnement  
ACME

PREVENT  
CANCER **NOW**

AUGUST 2016

## oraclepoll RESEARCH

- STUDY SAMPLE: 1,000 RESIDENTS
- RURAL-URBAN SPLIT: 19%, n=190 RURAL  
81% n=810 URBAN
- MARGIN OF ERROR: +/- 3.1%, 19/20 TIMES
- PUBLIC, PRIVATE AND CELL NUMBERS
- CONDUCTED: AUGUST 25 – 31 2016



## Attitudes towards pesticide usage

Respondents were read a brief statement before being asked to rate their level of agreement with 3 statements.

“Pesticides are products used to kill pests such as weeds and insects on lawns and gardens.”



## Attitudes: Pesticide Usage

Question 1	Total Disagree	Neutral	Total Agree	Do Not Know
Pesticides used on lawns and gardens in my community pose a health threat to children.	17%	14%	<b>66%</b>	2%

A MAJORITY OF ALBERTANS AGREE PESTICIDES POST A HEALTH THREAT TO CHILDREN



## Attitudes: Pesticide Usage

Question 2	Total Disagree	Neutral	Total Agree	Do Not Know
Pesticides used on lawns and gardens in my community pose a health threat to pets such as dogs and cats.	18%	11%	<b>68%</b>	3%

An even higher percent, 68% of those surveyed agree that pesticides pose a threat to their pets.



## Attitudes: Pesticide Usage

Question 3	Total Disagree	Neutral	Total Agree	Do Not Know
Pesticides used on lawns and gardens in my community pose a threat to the environment including wildlife, air, soil and water quality.	24%	24%	<b>50%</b>	2%

50% agree pesticide pose a threat to the environment with agreement higher among females at 58%



### Support/Oppose a pesticide law

Respondents were read the following statement:

**“Seven other Canadian provinces have already restricted pesticides used on lawns and gardens due to risks posed to human health and the environment.”**



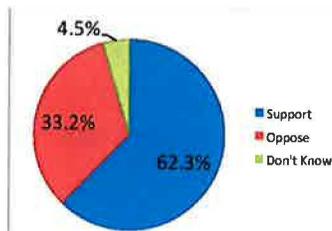
### PESTICIDE PHASE OUT

WOULD YOU SUPPORT OR OPPOSE A LAW THAT PHASES OUT THE USE & SALE OF ALL BUT THE SAFEST PESTICIDES FOR LAWNS AND GARDENS IN ALBERTA?

*The law would not apply to mosquito control, agriculture or forestry.*



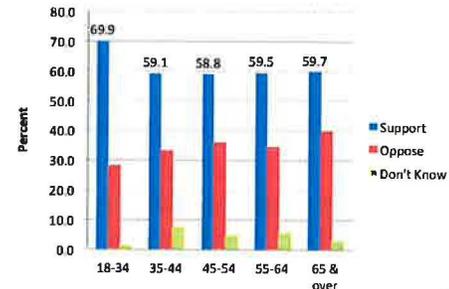
**SUPPORT FOR PROVINCIAL PESTICIDE LAW**



62% ALBERTAN MAJORITY SUPPORT



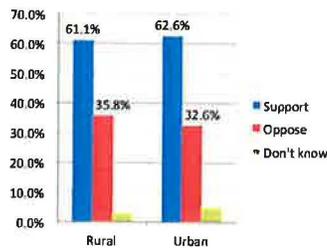
**SUPPORT FOR A PROVINCIAL PESTICIDE LAW BY AGE**



The youngest residents were most supportive of legislation



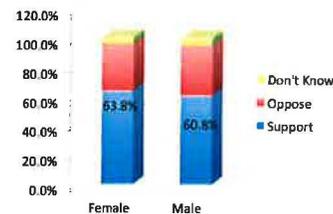
**RURAL – URBAN SUPPORT FOR PROVINCIAL PESTICIDE LAW**



The urban-rural support was almost even

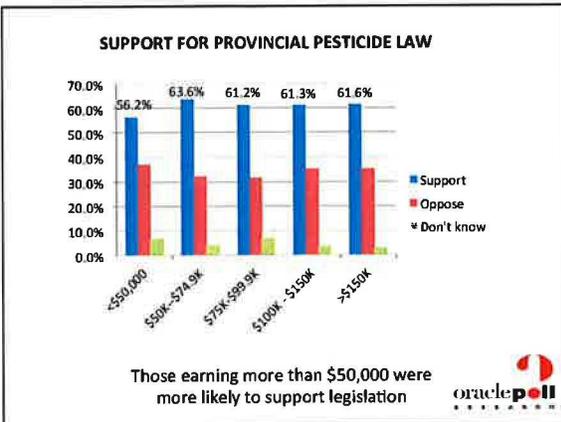


**GENDER SUPPORT FOR A PROVINCIAL PESTICIDE LAW**



Females were more supportive of provincial pesticide legislation





## Alberta Pesticide Survey Report

PREVENT  
CANCER

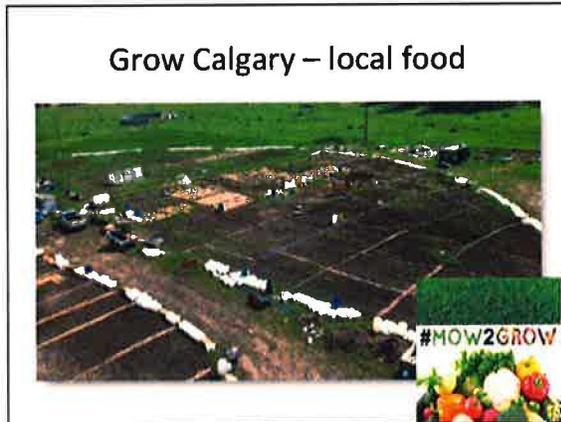
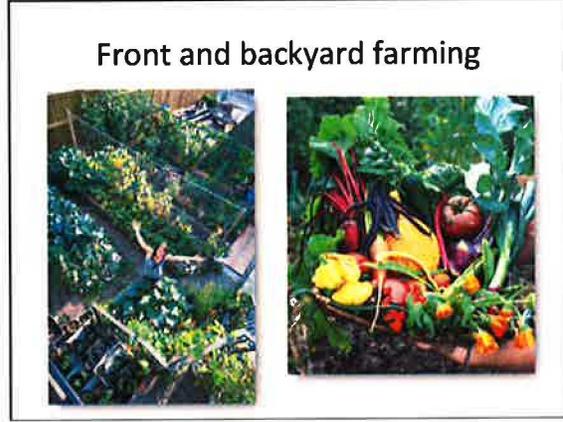
**NOW**

**CAPE**  
Canadian Association  
of Physicians  
for the Environment  
  
Association Canadienne  
des Médecins  
pour l'Environnement  
**ACME**

A vibrant, healthy and green (in the healthy sense) Calgary is a city that values:

- caring for others
- cooperation and collaboration
- community initiatives
- urban agriculture
- nature and
- our vital pollinators.

**Visual Impacts of unregulated weeds ought to be a very low or non-existence priority of Council.**



Community Gardens - Parkdale



Naturalization



Xeriscaping



Urban NYC Bee Keeper  
Colleen de Neve



## TOP REASONS TO RESTRICT PESTICIDE USE TO SAFEST OPTIONS

### 1. PROVEN SUCCESS AND GAINING MOMENTUM

Seven provinces have enacted cosmetic pesticide legislation. Over 180 communities have adopted pesticide bylaws. Approximately 80% or 27 million Canadians are benefitting from enhanced health protection as a result of restrictions on pesticide use and sales.<sup>1</sup> Alberta and Saskatchewan have the least protection with virtually no municipal pesticide bylaws in effect. Calgary remains the largest municipality in Canada without a pesticide bylaw.

### 2. RURAL AND URBAN SUPPORT IN ALBERTA FOR A COSMETIC PESTICIDE BAN

A recent poll of Albertans (August 2016) across the province indicated a majority of Albertans would support a law that phases out the use and sale of all but the safest pesticides for lawns and gardens. Two thirds of Albertans agreed that pesticide use on lawns and gardens pose a health threat to children and pets. Fifty per cent agreed that lawn and garden pesticides posed a threat to the general environment including wildlife, air soil and water compared to 24% who disagreed.

### 3. DEFICIENCIES IN THE FEDERAL PESTICIDE REGULATORY SYSTEM

Animal toxicity testing submitted by the pesticide manufacturer has limited relevance to people; is short-term; does not transcend generations; and fails to address low-dose, cumulative effects, or endocrine disruption. Only the active ingredient is tested. Combined formulations and additives to increase toxic effects and penetration and absorption are not tested. Medical literature including the findings of the International Agency for Cancer Research (IARC) is dismissed by the Pesticide Management Regulatory Agency (PMRA) as inconclusive despite extensive real life medical studies of the adverse health effects of pesticides. For example the position statements of the American Academy of Paediatrics,<sup>2</sup> the American Chemical Society<sup>3</sup> and the 2012 update of the Ontario College of Family Physicians (OCFP) Systematic Reviews of Pesticide Health Effects<sup>4</sup> indicate increasing and strong evidence of associations between early life exposure to pesticides and paediatric cancers, decreased cognitive function, and behavioural problems.

### 4. RISK ASSESSMENT BASED ON FOLLOWING DIRECTIONS

Pesticide registration and risk assessment is based on following label directions, often in very small print, to avoid acute toxicity or immediate adverse health impacts. Even then, directions are difficult to follow such as: avoid inhaling; avoid contact with eyes or skin; or apply only when there are no children, pregnant women, elderly persons, pets or animals in the vicinity.<sup>5</sup> Risk assessment does not include the chronic and cumulative effects of multiple chemical exposures and low-dose exposures over time.

### 5. PESTICIDES KNOW NO BOUNDARIES

Even when attempts are made to use pesticides according to instructions, pesticides affect non-target plants, insects, animals and humans. Pesticides drift in the air, reside in the soil and contaminate groundwater and surface water beyond the area of application. Household dust containing pesticide residue tracked indoors is the largest source of childhood pesticide exposure.<sup>6</sup> A study by Paracel Labs, Calgary, found that 2,4-D and dicamba lingered in the air and soil longer than industry data indicates and the amount of dicamba detected exceeded provincially regulated safe levels.<sup>7</sup>

## 6. PESTICIDE RESIDUE MORE PREVELANT DOWNSTREAM THAN UPSTREAM OF CITIES IN ALBERTA

An Overview of Pesticide Data in Alberta Surface Waters Since 1995 revealed that pesticides were generally more diverse and frequently detected downstream of Edmonton, Red Deer, Calgary and Lethbridge than upstream. The more frequently detected pesticides included the lawn care herbicides 2,4-D, dicamba, and mecoprop and the insecticides lindane, diazinon and chlorpyrifos.<sup>8</sup> Likewise in Ontario the same lawn care products were found in urban streams. A six-year study comparing lawn care pesticide levels before and after the 2009 Ontario Cosmetic Pesticides Ban took effect found levels of 2, 4-D, dicamba and mecoprop in 10 urban streams, under study, decreased significantly in a range between 16% to 92%.<sup>9</sup>

## 7. COSTS OF PESTICIDE USE: INCALCULABLE

Under-reported to non-existent, cost estimates do not consider: water use (provinces with pesticide bans use LESS FERTILIZER and WATER<sup>10</sup>); water infrastructure capacity; greenhouse emissions; soil, water and air pollution; wildlife harm (i.e. Colony Collapse Disorder, feminization of amphibians and fish); health costs for treatment of cancer, respiratory illnesses, developmental and behavioural issues, endocrine disruption or neurological disorders.

## 8. PESTICIDE LEGISLATION LEVELS THE PLAYING FIELD AND IS AN ECONOMIC BOOST TO LANDSCAPING AND LAWN CARE COMPANIES

Toronto's pesticide legislation came into effect April 1, 2004. Between 2001 and 2006 Canadian Business Patterns illustrated that the number of landscaping and lawn care businesses located in Toronto grew by 30%. A similar trend was observed in Halifax after its bylaw came into effect in 2003. The number of landscaping and lawn care businesses in Halifax grew by 53% between 2000 and 2005.<sup>11</sup>

## 9. EDUCATION IS NOT ENOUGH

Reduction of pesticide use requires the backing of a law with consequences for non-compliance as studies have proven.<sup>12</sup> The former head of Bylaw and Animal Services for the City of Calgary, Bill Bruce, was recently quoted in the Montreal Gazette (Aug. 24, 2016). "It takes time to write new laws, to provide education.... It is all about consequences. Human behaviour does not change without consequences."<sup>13</sup>

<sup>1</sup> <http://www.flora.org/healthyottawa/BylawList.pdf>

<sup>2</sup> <http://pediatrics.aappublications.org/content/130/6/e1757.abstract?sid=fcb78147-fc60-47a6-815c-108d33892f17>

<sup>3</sup> <http://www.acs.org/content/acs/en/pressroom/presspacs/2013/acs-presspac-march-13-2013/new-approaches-for-controlling-pesticide-exposure-in-children.html>

<sup>4</sup> <http://ocfp.on.ca/docs/pesticides-paper/2012-systematic-review-of-pesticide.pdf>

<sup>5</sup> <http://www.healthyenvironmentforkids.ca/news-info/safety-more-theory-practice-use-directed-impossible-far-pesticide-labels-go>

<sup>6</sup> <http://pediatrics.aappublications.org/content/130/6/e1765.full>

<sup>7</sup> <http://www.paracellabs.com/files/ED%20in%20air.pdf>

<sup>8</sup> <http://aep.alberta.ca/water/programs-and-services/surface-water-quality-program/documents/PesticideDataAlbertaSurfaceWater-Nov2005.pdf>

<sup>9</sup> <http://www.mdpi.com/2078-1547/5/1/138>

<sup>10</sup> <http://www.ec.gc.ca/indicateurs-indicators/default.asp?lang=en&n=2588C62B-1>

<sup>11</sup> [https://www1.toronto.ca/city\\_of\\_toronto/toronto\\_public\\_health/healthy\\_public\\_policy/pesticides/files/pdf/interim\\_evaluation\\_report\\_02262007.pdf](https://www1.toronto.ca/city_of_toronto/toronto_public_health/healthy_public_policy/pesticides/files/pdf/interim_evaluation_report_02262007.pdf)

<sup>12</sup> <http://www.cullbridge.com/Projects/PesticidesBestPracticeReview-FINAL040324.pdf>

<sup>13</sup> <http://montrealgazette.com/storyline/heres-how-calgary-reduced-dog-attacks-without-banning-pit-bulls>