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Dear Mr. Bilyea:

The Registered Nurses' Association of Ontario is the professional association of Ontario's registered nurses. The Association has a mandate to speak out for healthy public policy, and strongly supports the direction the government has taken to protect the public from exposure to pesticides used for cosmetic purposes. RNAO urges that Cabinet proceed with the regulations so that Bill 64 on cosmetic pesticides will come into full force and be implemented in the spring of 2009. The draft pesticide regulations take a very important step in the right direction, and we recommend below points to make the regulations even more effective at protecting the health of Ontarians.

This is a Health Issue

There are many reasons to support this legislation and enact strong regulations, but the key reason for Ontario's nurses is health. The government is absolutely correct in addressing cosmetic use of pesticides:

- there is demonstrated risk associated with pesticide use with no countervailing health benefit from cosmetic uses;
- the legislation expressly exempts uses that protect public health;
- there is a very high risk of direct exposure, as lawn and garden use occur where people live and work and children play;
- even if people take precautions to avoid pesticide use, they cannot avoid exposure from pesticides used in their vicinity;
- lawns and gardens are the sites of very high use and misuse of pesticides, due to the lack of training of those applying pesticides – frequently homeowners; and
- there exist effective and much safer alternatives to chemical pesticides.

The public has strong grounds for concern and they are massively in favour of bans on the cosmetic use of pesticides. Provinces and municipalities regulate pesticides because they are not safe. Chemical pesticides are designed to interfere in biological processes, and it is thus not surprising that they have side effects on the environment and on exposed human populations, especially those most vulnerable. There are 1,600 pesticide poisonings alone reported in Ontario per year, with over half being children under the age of six.ⁱ Lurking below the surface are the long-term effects of “normal” exposure. There are many epidemiological and toxicological studies linking a range of health problems to pesticide exposure. These problems include various cancers, birth defects, reproductive damage, neurological and developmental toxicity, immunotoxicity and endocrine disruption.^{ii iii iv v vi} The risk to health comes not only from active ingredients, but also from so-called inert substances.^{vii viii ix}

RNAO is particularly concerned that existing controls, through Canada's national pesticide regulatory system, do not adequately protect vulnerable populations, such as small children, pregnant women and nursing mothers.^x Health Canada's Pest Management Regulatory Agency may register a pesticide if it is effective and if the PMRA decides that the risk to human health is "acceptable", based on data submitted by the registering company. The limitations of the testing process are well known:

1. It depends upon companies submitting all relevant data;
2. Ethics prevent testing from being done on humans, so lab tests are done on mature animals that are imperfect models for humans, particularly for humans at formative and vulnerable stages of their lives;
3. The lab tests are done on small numbers of animals, making it more difficult to predict rare effects in large exposed populations; and
4. Each pesticide is tested by itself, meaning that the interaction effects with the many other pollutants in the environment, as well as the combined effect of all, are not considered.

The PMRA is careful to warn users that pesticides are toxic.^{xi} Indeed, that is their hallmark: they are very good at killing target species in very small concentrations. The problem is it is not possible to confine effects to target species.

Over and above the limits of the testing procedure in registration, there is the human factor in use. "Acceptable risk" assumes that users closely follow all the instructions and procedures to reduce risk (see the PMRA advice to home users: <http://www.pmr-arla.gc.ca/english/consum/pesticidehome-e.html>). Many users are unaware of or routinely disregard these requirements: they do not wear adequate protection when applying pesticides; they do not use correct concentrations or volumes; they apply at the wrong time (and frequency) and in the wrong weather (eg., worsening the drift problem by spraying in high winds); they do not stop people and animals from entering sprayed areas at the highest risk times; and they do not safely store pesticides. Lawn and garden use of pesticides for cosmetic purposes can be much more intensive than agricultural use, simply because of poor and inexpert practices.

Into this poisonous chemical soup walk our most vulnerable population – children. Children tend to get greater exposure whenever pesticides are released because of their behaviour and play. Their developing organs and tissues are more vulnerable to harm. Children are even exposed to pesticides in utero, when crucial physiological development occurs. And of course, children have a long time ahead of them to develop health problems from early pesticide exposures, and from synergistic and cumulative effects of these and other exposures.^{xii xiii}

All of the above dictates the precautionary principle and policy approach, particularly when considering unnecessary pesticide uses without counterbalancing health benefits. Precaution is all the more important because detection of pesticide damage in individuals is difficult, as physicians, nurses and other health professionals are not generally well trained in recognizing pesticide poisoning. Furthermore, the effects of pesticide damage are often only apparent after many years. Thus, people do not receive early warning signs that would allow them to take action in time.

Other Reasons to Support Strong Pesticide Regulations

Though economic times are defining moments for society, and we ask Premier McGuinty to lead boldly, RNAO supports, in the strongest possible terms, the government initiative to ban cosmetic use of pesticides because it is the right thing to do to protect human health. Moreover, we also know that strong pesticide regulations will deliver a win-win situation in many other ways:

- It protects environmental health (which is essential to protecting human health).
- It is an upstream investment in the health of our population, saving downstream cost in cancer care and children's disabilities related to pesticide exposure (eg. birth defects, reproductive damage, neurological and developmental toxicity).
- Experience in other jurisdictions shows that far from hurting the lawn care industry, employment and the number of businesses grows (eg. in Halifax). This makes sense because there is a demand for increased services because safer, non-pesticide approaches are slightly more labour-intensive. Also more people seek the services of professional lawn care companies because non-pesticide approaches require different expertise than simply spraying pesticides.
- Traditional lawn care companies are very quick to adapt to new pesticide legislation by offering organic, non-toxic alternatives (eg., Weed Man in Toronto, after opposing Toronto's pesticide bylaw).
- Organic lawn care has been growing rapidly, showing both that there is an eager market for it and that supply responds rapidly to meet demand.
- This is in synch with what the public wants: polling has consistently shown support for cosmetic pesticide bans at or above 70 per cent, which is very high.
- Health and environmental groups covering a broad spectrum support legislation with strong regulations banning cosmetic use of pesticides. The list is remarkably long, and includes in addition to RNAO, such key players such as the Canadian Cancer Society (Ontario Division), the Ontario College of Family Physicians, the Ontario Medical Association (Pediatrics Section), the Canadian Association of Physicians for the Environment, the Children's Hospital of Eastern Ontario, the Learning Disabilities Association of Canada, the Ontario Public Health Association, Prevent Cancer Now, the Canadian Environmental Law Association, EcoJustice, Environmental Defence, the David Suzuki Foundation,

Pesticide Free Ontario, the United Steelworkers, and the Organic Landscape Alliance.^{xiv}

Recommendations

We ask Premier McGuinty to leave a long lasting legacy for Ontario by:

- Not weakening any measure of the proposed regulations, and approving the regulations in time for them to come into full effect in spring 2009.
- Requiring specific percentage reductions in toxic pesticide use on golf courses and specialty turf, with a deadline for stopping all pesticide use in those settings. Do not exempt use on roughs and fairways. Until a phase out is realized, include a substantial buffer zone around water, playgrounds and residences for the safety and protection of children.
- Tightening the list of restricted products (Schedule 7) and domestic products (Schedules 5 and 6) to include only the safest products.
- Removing the exemption for the use of toxic pesticides on public work sidewalks, as safer and equally effective alternatives are available.

With warm regards,



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ⁱ Boyd, D.R. (2007). *Northern Exposure: Acute Pesticide Poisonings in Canada*, David Suzuki Foundation. June. P.8.

ⁱⁱ Sears, M., C Walker, RH van der Jagt, P Claman. (Apr 2006). "Pesticide assessment: Protecting public health on the home turf", *Pediatrics and Child Health*, Volume 11 Issue 4: 229-234.

ⁱⁱⁱ M. Sanborn, M., K.J. Kerr, L.H. Sanin, D.C. Cole, K.L. Bassil, C. Vakil (Oct. 2007). "Non-cancer health effects of pesticides: Systematic review and implications for family doctors", *Canadian Family Physician* 53:1712-1720.

^{iv} K.L. Bassil, C. Vakil, M. Sanborn, D.C. Cole, J.S. Kaur, K.J. Kerr. (Oct. 2007). "Cancer Health Effects of Pesticides: Systematic Review", *Canadian Family Physician* 53:1704-1711.

^v For an extensive review of the literature on the human health effects of pesticides, see *Pesticides Literature Review*, Ontario College of Family Physicians (April 2004). Accessed July 11, 2008 at <http://www.ocfp.on.ca/local/files/Communications/Current%20Issues/Pesticides/Final%20Paper%2023APR2004.pdf>

^{f.}
^{vi} Solomon, Gina, O.A. Ogunseitan, Jan Kirsch (2000). *Pesticides and Human Health: A Resource for Health Care Professionals*, Physicians for Social Responsibility and Californians for Pesticide Reform.

^{vii} The EPA encourages manufacturers to refer to "inert ingredients" as "other ingredients" because an inert classification does not mean non-toxic (US Environmental Protection Agency (2006), *Inert (other) Ingredients in*

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- viii *Pesticide Products*, accessed July 11, 2008 at <http://www.epa.gov/opprd001/inerts/>.
- ix Attorney General of New York (1996), *The Secret Hazards of Pesticides: Inert Ingredients*, February.
- x Journal of Pesticide Reform (1999), *Are "Inert" Ingredients in Pesticides Really Benign?*, Summer, Vol. 19, No. 2., 8.
- x Sanborn et al, 167.
- xi Health Canada. Pest Management Regulatory Agency. (2008). *Responsible Pesticide Use: Pesticide Use in and Around the Home*. Retrieved December 18, 2008 from <http://www.pmr-arla.gc.ca/english/consum/pesticidehome-e.html>.
- xii Tuormaa, Tuula (2006), *The Adverse Effects of Agrochemicals on Reproductive Health*, Foresight, the Association for the Promotion of Preconceptual Care, accessed July 11, 2008 at http://www.foresight-preconception.org.uk/booklet_agro.htm.
- xiii Steingraber, Sandra (2005), *The Precautionary Principle vs. Regulation: Are We Living in a Chemical Stew?*, Keynote address at 9th Annual Conference on Women's Health and the Environment, October 24.
- xiv See <http://www.pesticidefree.ca/PDF/OntBanStatement.pdf> and <http://www.pesticidereform.ca/organizations.htm>, retrieved December 18, 2008.