

**Application for Investigation
Part V, Environmental Bill of Rights, 1993**

Suspected Violations of the *Pesticides Act*

TO: Environmental Commissioner of Ontario
1075 Bay Street, Suite 605
Toronto, ON M5S 2B1
Tel: 416-325-3377 | Fax: 416-325-3370
commissioner@eco.on.ca

1. Applicants:

(a) Applicant Number One:

Beatrice Olivastri
CEO, Friends of the Earth Canada
251 Bank Street, 2nd Floor
Ottawa, ON K2P 1X3
Tel: 613-241-0085
beatrice@foecanada.org

(b) Applicant Number Two:

John Bennett
Senior Policy Advisor, Friends of the Earth Canada
251 Bank Street, 2nd Floor
Ottawa, ON K2P 1X3
Tel: 613-291-6888

2. Alleged Contraveners:

The Alleged Contraveners are the following corporations (“**Retailers**”) and their directors and officers:

<i>Corporation</i>	<i>Location of Contravention</i>	
(1) Canadian Tire Services Limited 2180 Yonge Street, Suite 1800 Toronto, Ontario M4S 2B9	Canadian Tire #258 1820 Merivale Road Nepean, ON K2G 1E6	(“ Canadian Tire ”)
(2) Home Depot of Canada Inc. 1 Concorde Gate, Suite 400 Toronto, Ontario M3C 4H9	Home Depot 1900 Baseline Road Ottawa, ON K2C 0C6	(“ Home Depot ”)
(3) Lowe’s Companies, Inc. 1000 Lowe’s Boulevard Mooresville, NC 28117 USA	RONA Home & Garden 585 West Hunt Club Road Nepean, ON K2G 5X6	(“ RONA ”)

garden centres in the Ottawa area and sent the samples to a laboratory at the University of Guelph for pesticide residue analysis.

Beatrice Olivastri (Applicant 1) attended at five garden centres in the Ottawa area on May 27, 2017, including the following three stores:⁴

(1) Canadian Tire #258
1820 Merivale Road
Nepean, ON K2G 1E6

(2) Home Depot
1900 Baseline Road
Ottawa, ON K2C 0C6

(3) RONA Home & Garden
585 West Hunt Club Road
Nepean, ON K2G 5X6

Ms. Olivastri purchased flowers at each garden centre, selecting flowering plants that are attractive to honey bees and bumble bees for nectar and pollen. Receipts for the plants are attached at **Tab 1**, and photographs of the plants are attached at **Tab 2**.

Ms. Olivastri prepared samples of blooms to be tested in accordance with a sampling procedure developed by FOE in 2015, a copy of which is attached at **Tab 3**. The samples were placed in a freezer until May 31, 2017, on which date they were packed in a cooler with ice packs and shipped to the University of Guelph's Agriculture and Food Laboratory.⁵ A copy of the shipping receipt is attached at **Tab 4**. A copy of the University of Guelph's Laboratory Services Agreement, signed by Ms. Olivastri on January 17, 2017, is attached at **Tab 5**.

The University of Guelph Agriculture and Food Laboratory provided FOE with a Final Report dated June 21, 2017, summarizing the residues detected on the samples provided, a copy of which is attached at **Tab 6**. Ms. Olivastri prepared a summary of the results, which highlights in yellow Class 9 pesticides, which are banned for cosmetic use in Ontario, and highlights in orange Class 9 pesticides which are also neonicotinoids. A copy of the summary of results is attached at **Tab 7**.

The University of Guelph Agriculture and Food Laboratory's testing detected residues of permitted neonics, such as flonicamid, as well as residues of five Class 9 pesticides, namely **napropamide, spinosad, boscalid, pyraclostrobin, and imidacloprid** (a neonicotinoid), in concentrations above scientific standards of harm.

⁴ Ms. Olivastri also collected samples from Loblaws Merivale Road, 1460 Merivale Road, Nepean, ON K2E 5P2 and Lowe's Ottawa-Nepean, 340 West Hunt Club Road, Ottawa, ON K2E 0B7. Testing of plants at these locations revealed residues of permitted neonics.

⁵ FOE also conducted similar pesticide residue analyses in 2014 and 2015. In 2014, FOE contributed samples to Friends of the Earth US's testing project for a 2014 Gardener Beware Report. In 2015, FOE conducted its own testing through the University of Guelph's Agriculture and Food Laboratory.

These test results are evidence that the Retailers have contravened sections 7.1(1) and 4(a) of the Act. These violations are likely to cause adverse effects and, consequently, the directors and officers of the Retailers are liable under sections 49(1) and (3)(a) of the Act. These contraventions are described in detail below.

Additional testing would be required to determine whether these contraventions are ongoing, and whether there are additional contraveners.

Legal Analysis

A “fair, large and liberal interpretation” of the Act is justified both statutorily⁶ and in the case law. The Supreme Court of Canada has repeatedly ruled that statutes related to environmental protection are entitled to a generous interpretation.⁷ For this reason, the intended reach of environmental legislation must be interpreted as “wide and deep” to ensure that it can address and remedy unanticipated environmentally harmful scenarios as they arise.⁸

In enacting a ban on the cosmetic use of Class 9 pesticides, the Legislature intended to prohibit the unnecessary use of these substances and eliminate a source of preventable harm to both human and environmental health. FOE’s testing results demonstrate that the objects of this legislation are being thwarted; an interpretation of the Act that ensures these objects are met is required.

(1) *Contravention of s. 7.1(1) of the Pesticides Act*

Pursuant to s. 7.1(1) of the Act, Class 9 pesticides are banned for cosmetic or “non-essential”⁹ use in Ontario. Section 7.1(1) provides:

Prohibitions – pesticides used for cosmetic purposes

7.1 (1) No person shall use or cause or permit the use in, on or over land of a pesticide that has been prescribed for the purpose of this subsection.

Section 16 of the Regulation provides that Class 9 pesticides are prescribed for the purposes of s. 7.1(1) of the Act. There are some exceptions to the general prohibition on the use of Class 9 pesticides, none of which apply in the present circumstances. The case law relating to s. 7.1(1) of the Act, while limited, confirms that Class 9 pesticides are not permitted for recreational, residential or most landscaping purposes.¹⁰

The sale of ornamental plants contaminated with residues of Class 9 pesticides contravenes 7.1(1) of the Act. The Retailers have violated, and may be continuing to violate, s. 7.1(1) by permitting the use of prescribed pesticides in or on land through the sale of plants contaminated with Class 9 pesticide residues to residential and recreational gardeners:

⁶ *Legislation Act*, 2006, SO 2006, c. 21, Sched. F, s. 64 (1).

⁷ *Castonguay Blasting Ltd v Ontario (Environment)*, 2013 SCC 52 at para 9, [2013] 3 SCR 323 [*Castonguay*].

⁸ *Ibid* at para 9.

⁹ *Pesticides Act*, RSO 1990, c P.11, s 1(1).

¹⁰ *R v Djeneralovic*, 2013 Carswell 18747 (Ont Ct J) at para 7.

- (i) **The Retailers permitted the use of prescribed pesticides** – In public welfare provisions, the “permitting” aspect of the offence relates to a “passive lack of interference” by the defendant.¹¹ The defendant does not have to have knowledge of what he/she was permitting.¹²

A third party can be liable for the actions of another party by failing to prevent the prohibited activity over which he/she had control or authority;¹³ “permitting” something to occur does not require a positive act.¹⁴ Neither is it necessary that harm from the activity be foreseeable to the third party unless the provision includes language importing a fault requirement into the offence, such as “wilfully”, “with intent”, “knowingly” and “intentionally”.¹⁵ As s. 7.1(1) of the Act does not contain this language, foreseeability is not an element of this offence.

Large corporations like the Retailers have control over the types of products they choose to sell, and have control or influence over the behaviour of their suppliers.¹⁶ The Retailers permit the use of banned pesticides by selling plants with residues of prescribed pesticides to the general public or, in the alternative, by failing to prevent the sale of contaminated plants to the public.

- (ii) **Used in, on or over the land** – As per s. 1(1) of the Act, “land” refers to open areas covered by water, soil or both. Section 1(4)(a) defines the use of a pesticide as “the placement or application of a pesticide.” The presence of a pesticide in plants, soil or water is proof of its use, or placement, in, on or over the land.¹⁷

FOE’s testing revealed pesticide residues on flowering plants sold in garden centres of the Retailers to the general public. As it is reasonable to assume that customers purchase ornamental plants to plant them in their gardens, the presence of the pesticide residues illustrates that these substances are used, or placed, on or in land.

- (iii) **Of a pesticide prescribed for the purposes of this subsection** – Class 9 pesticides are prescribed pesticides for the purposes of s. 7.1(1) of the Act (Regulation, s. 16). Section 1(2) of the Regulation provides that Class 9 pesticides cannot be used for production of plants for the primary purposes of pastime, recreation or display, or in residential spaces, such as lawns or similar locations (i.e. home gardens).

¹¹ *R v Sault Ste Marie*, [1978] 2 SCR 1299 at 1329, 1978 CanLII (SCC). Although the SCC was interpreting a provision of the Ontario Water Resources Act in the context of pollution resulting from garbage disposal, the Court’s comments on the definition of “permit” were also made in the context of clarifying the “troublesome” language of public welfare legislation more generally (at 1327).

¹² *Ibid* at 1327.

¹³ See: *R v Bell Canada*, 1988 CarswellOnt 3602 (Ont Prov Off Ct).

¹⁴ *R v Toronto Electric Commissioners*, 12 WCB (2d) 222, 6 CELR (NS) 301 (Ont Ct J - Gen Div) at para 49.

¹⁵ *R v Timminco Ltd*, [2001] 54 OR (3d) 21, 144 OAC 231 (ON CA) at para 26.

¹⁶ This influence or control has been aptly demonstrated by the Friends of the Earth’s anti-neonics campaign which has successfully convinced some major retailers, such as Home Depot, Lowes and Rona, to phase-out the sale of plants cultivated with neonics. In public statements about their actions on the use of neonicotinoids, these retailers claim to be working with their suppliers to eliminate the use of neonic pesticides and find alternative products. See: <http://foecanada.org/en/issues/the-bee-cause/market-action/>.

¹⁷ *R v Tymack Inc.*, 2010 CarswellOnt 11355 (Ont Ct J).

The plants containing Class 9 pesticide residues identified by FOE are ornamental plants, which, by definition, are produced for the purposes of display. Moreover, customers at major retailers typically purchase plants at these garden centres for their home gardens and for the purposes of recreation. Display or use in a public park or community garden are similarly prohibited under the Regulation.

(2) Contravention of section 4(a) of the Pesticides Act

The sale of ornamental plants containing residues of Class 9 pesticides by the Retailers constitutes a contravention of section 4(a) of the Act, which provides:

Prohibited use of pesticides

4 No person, whether acting or not acting under the authority of a licence or permit under this Act or an exemption under the regulations, shall discharge or cause or permit the discharge of a pesticide or of any substance or thing containing a pesticide into the environment that,

(a) causes or is likely to cause impairment of the quality of the environment for any use that can be made of it greater than the impairment, if any, for such use that would necessarily result from the proper use of the pesticide; [...]

- (i) **The Retailers *permit the discharge*** – Under section 1(1) of the Act, to “discharge” is defined as adding, depositing, leaking or emitting.¹⁸ The Retailers’ customers “discharge” pesticides by planting contaminated plants in their gardens, adding or depositing Class 9 pesticides to the soil and air. As set out at Section 3(c)(2), above, when a third party fails to prevent an activity over which that party had authority and/or control and that activity results in harm, the third party has *permitted* the unlawful activity to occur and, even if that party did not directly engage in the activity, is liable for the resulting harm. The Retailers have *permitted the discharge* of banned pesticides by purchasing from their suppliers and selling to customers plants with residues of prescribed pesticides or, in the alternative, by failing to prevent the sale of these plants.
- (ii) **A pesticide or any substance or thing containing a pesticide is discharged** – A pesticide is defined in s. 1(1) of the Act as “any organism, substance or thing that is manufactured, represented, sold or used as a means of directly or indirectly controlling, preventing, destroying, mitigating, attracting or repelling any pest or of altering the growth, development of characteristics of any plant life that is not a pest and includes any organism, substance or thing registered under the Pest Control Products Act (Canada).” There is no definition in the Act of “substance containing a pesticide” or “thing containing a pesticide”.

As noted above, the Act does not specify that a certain concentration or amount of the impugned pesticide is required to trigger the offence. Rather, the offence occurs when the *effects* of the pesticide reach a certain threshold (i.e. greater than would have been

¹⁸ The term “discharge” has been generously interpreted in the case law. See for example, *Castonguay*, *supra* note 7 and *Ontario (Ministry of Labour and Ministry of the Environment) v Sunrise Propane Energy Group Inc. et al*, 2013 ONCJ 358 (CanLII).

expected, if any, from the proper use) and when the pesticide has been used in an improper manner.

Plants treated with systemic pesticides may be considered “pesticides” according to the Act’s definition. Systemic pesticides are absorbed by the plant and incorporated into the plant’s tissues (i.e. stems, leaves, flowers and seeds).¹⁹ Therefore, a plant treated with systemic pesticides is an organism used to directly or indirectly destroy pests. Plants treated with systemic pesticides may also be “things containing a pesticide”, as the plants’ tissues contain the pesticide. Two of the five Class 9 pesticides identified in testing, boscalid and imidacloprid, are systemic pesticides.

Therefore, the sale of plants with Class 9 pesticide residues and/or of plants treated with systemic pesticides constitutes a *discharge of a pesticide or thing containing a pesticide*, pursuant to section 4 of the Act.

- (iii) The pesticides are discharged into the environment** – Section 1(1) of the Act defines “environment” as “the natural environment, a building, structure, machine and vehicle or any of them”; “natural environment” is defined as “the air, land and water, of any combination or part thereof, of the Province of Ontario.”

It can be reasonably assumed that the ornamental plants in question were purchased for the purpose of planting them in the gardens of the purchasers – whether planted directly into the soil or placed in containers – and, therefore, into the “land” or “air”.²⁰ Therefore, planting ornamental plants in residential gardens is a *discharge into the environment* as per section 4 of the Act.

- (iv) The pesticides are likely to cause impairment to the quality of the environment for any use that can be made of it greater than the impairment that would result from the proper use of the pesticides** – A discharge “causes or is likely to cause” an adverse effect when it is more probable than not that the effect would result given the circumstances that existed at the time of the discharge.²¹

Pesticides are inherently hazardous chemicals. Class 9 pesticides are banned for cosmetic use because the Legislature deemed that humans and the environment should not be unnecessarily exposed to these chemicals. The Class 9 pesticides identified by FOE are known to impair environmental quality in ways that are relevant to the use that recreational and residential gardeners would make of it: they are toxic to organisms that live in their gardens, such as bees, earthworms and birds, and they can cause adverse health impacts in the people enjoying those gardens. Since the use of these pesticides in residential gardens is prohibited, any use in these spaces is, by definition, an improper use. Any adverse effects that these banned pesticides have in residential gardens must be greater than those that would have resulted from not using these substances at all, which is the only proper use of Class 9 pesticides in this context.

¹⁹ Task Force on Systemic Pesticides, “Systemic Pesticides”, online: <http://www.tfsp.info/systemic-pesticides/>.

²⁰ Indeed, the fact that most of the plants tested were perennials, plants that return year after year, adds weight to this assumption.

²¹ *R v Toronto Refiners & Smelters Ltd*, 20 OR (2d) 772, 1978 CarswellOnt 1377 at para 9 (Ont Div Ct) [*Toronto Refiners*].

(3) *Contravention of sections 49(1) and (3)(a) of the Pesticides Act*

By selling ornamental plants containing residues of Class 9 pesticides, the Retailers have contravened, and may be continuing to contravene, sections 7.1(1) and 4(a) of the Act. Consequently, the officers and directors of the Retailers have contravened sections 49(1) and 49(3)(a), which provide:

Duty of director or officer of corporation

49(1) Every director or officer of a corporation that engages in an activity that may cause an effect mentioned in subsection (3) contrary to this Act or the regulations has a duty to take all reasonable care to prevent the corporation from causing or permitting such unlawful effect.

[...]

Effects

(3) The effects referred to in subsection (1) is any one or more of,

(a) impairment of the quality of the environment for any use that can be made of it;

[...]

from a pesticide or any substance or thing containing a pesticide to a greater degree than would necessarily result from the proper use or storage of the pesticide.

As Class 9 pesticides are banned for cosmetic uses, specifically for uses related to recreation or display in residential gardens or public spaces, the presence of these pesticides in residential gardens will invariably result in greater impairment to the quality of the environment for any use than can be made of it than if the pesticides had not been used. In other words, the only proper use in these contexts is no use at all. Therefore, the “effects” in section 49(3) are made out.

The directors and officers of the Retailers have a duty to take all reasonable care to prevent their respective corporations from permitting the discharge of Class 9 pesticides into the environment and/or to prevent the use of Class 9 pesticides in, on or over land for cosmetic purposes. Meeting this duty would require the directors and officers to prevent the sale of plants contaminated with residues of Class 9 pesticides to the general public.

4. Seriousness of the Contraventions

The contraventions described above are serious for the following reasons:

(1) The Contraventions Frustrate the Objects of the *Pesticides Act* and the *Cosmetic Pesticides Ban Act*

The contraventions set out in this application are frustrating the objects of the legislation and the intentions of the Legislature. The Legislature saw fit to prohibit the cosmetic use of Class 9 pesticides by passing legislation to amend the Act and Ontario Regulation 63/09. Bill 64 was introduced to the Legislature on April 22, 2008 and the *Cosmetic Pesticides Ban Act, 2008* went into force a year later.²²

When introducing Bill 64, the Minister of the Environment declared that the Bill was part of the government's efforts to reduce toxics in the environment and that it was "designed to protect our people's health, particularly that of our children." The Minister introduced the Bill on Earth Day and acknowledged the interdependence of human health and environmental protection:

Our government understands that by acting now, by tackling toxics in our air, land and water, and in consumer products, we can help safeguard our environment. More and more, we understand how our health and the health of future generations are linked to the amounts of chemicals seeping into our environment. It's up to us all to take a stand and make a difference.

[...] The Canadian Cancer Society has expressed its concern over growing evidence that exposure to pesticides may cause an increased risk of some types of cancer. Numerous other studies have also shown that pesticides can negatively affect human health.

Therefore, since the cosmetic use of pesticide has no health benefit, and does have the potential to cause harm, and since there are environmentally friendly alternatives for lawn and garden care, our government is proposing this ban on both the use and sale of pesticides.²³ [Emphasis added]

The Legislature intended to protect human and environmental health by preventing particular harmful chemicals from entering the environment. Nevertheless, we have discovered that banned pesticides still enter the environment as residues on ornamental plants, a situation that is frustrating the intentions and efforts of the Legislature.

(2) Class 9 Pesticides are Hazardous to Human and Environmental Health

Class 9 pesticides have been banned for cosmetic use because they are hazardous to human and environmental health. All of the pesticides detected have incident reports of human health impacts filed with Health Canada²⁴ and all of them are known to be harmful to animal life:

²² <https://news.ontario.ca/ene/en/2009/03/ontarios-cosmetic-pesticides-ban.html>

²³ Ontario, Legislative Assembly, *Official Report of Debates (Hansard)*, 39th Parl, 1st Sess, No 31A (22 April 2008) at 1242-1243 (Hon John Gerretsen).

²⁴ <http://pr-rp.hc-sc.gc.ca/pi-ip/ir-di-eng.php>

- **Napropamide** is a herbicide that has low toxicity to mammals and birds, is moderately toxic to honeybees²⁵ and is very toxic to aquatic organisms.²⁶
- **Spinosad** is an insecticide that is moderately toxic to fish²⁷ and has high acute toxicity to aquatic invertebrates and honeybees.²⁸
- **Boscalid** is a systemic fungicide that is moderately toxic to fish and aquatic invertebrates.²⁹ While this pesticide has low acute toxicity to honeybees³⁰, it has been linked with causing problems with bees' pollen consumption and digestion³¹ and is believed to have synergistic effects and become more toxic with other neonicotinoids, thereby becoming more toxic at lower concentrations.³² Moreover, because it is a systemic pesticide, boscalid becomes part of plants' tissues and, therefore, has ongoing effects in the environment.
- **Pyraclostrobin** is a fungicide has been linked to bee colony stress and decline.³³
- **Imidacloprid** is a neonicotinoid insecticide. It is a systemic active ingredient in dozens of registered products in Canada. It is moderately toxic to mammals and earthworms³⁴ and highly toxic to birds and honeybees.³⁵ It has also been linked to bee colony stress and decline.³⁶

Some plants tested by FOE contained residues of multiple banned pesticides, while others had residues of both banned pesticides and permitted neonicotinoids, which are known to have devastating impacts on bee populations. Despite the prohibition on the cosmetic use of these pesticides, "needless exposure to harmful chemicals"³⁷ is ongoing, posing an unnecessary and preventable risk to both human and environmental health.

(3) Consumers Expect Garden Centres to Comply With the Law

Consumers should reasonably be able to assume that they will not violate the cosmetic pesticides ban by purchasing ornamental plants at their local garden centre. Nothing on the labels of the plants tested by FOE indicated that they had been treated with chemicals prohibited for cosmetic

²⁵ <http://extension.psu.edu/pests/pesticide-education/applicators/fact-sheets/pesticide-safety/toxicity-of-pesticides>

²⁶ <http://sitem.herts.ac.uk/aeru/ppdb/en/Reports/481.htm>

²⁷ <http://sitem.herts.ac.uk/aeru/ppdb/en/Reports/596.htm>

²⁸ <http://extension.psu.edu/pests/pesticide-education/applicators/fact-sheets/pesticide-safety/toxicity-of-pesticides>

²⁹ <http://sitem.herts.ac.uk/aeru/ppdb/en/Reports/86.htm>

³⁰ <http://extension.psu.edu/pests/pesticide-education/applicators/fact-sheets/pesticide-safety/toxicity-of-pesticides>

³¹ Gloria DeGrandi-Hoffmann et al, "Effects of Oral Exposure to Fungicides on Honey Bee Nutrition and Virus Levels" online: (2015) 108: 6 J Economic Entomology, <https://doi.org/10.1093/jee/tov251>.

³² N. Tsvetkov et al, "Chronic exposure to neonicotinoids reduces honey bee health near corn crops", Online: (2017) 356:6345 Science, DOI: <10.1126/science.aam7470>.

³³ Pettis JS, et al, "Crop Pollination Exposes Honey Bees to Pesticides Which Alters Their Susceptibility to the Gut Pathogen *Nosema ceranae*", online: (2013) PLoS ONE 8(7): e70182, <https://doi.org/10.1371/journal.pone.0070182>;

³⁴ <http://sitem.herts.ac.uk/aeru/ppdb/en/Reports/397.htm>

³⁵ <http://extension.psu.edu/pests/pesticide-education/applicators/fact-sheets/pesticide-safety/toxicity-of-pesticides>

³⁶ Woodcock et al, "Country-specific effects of neonicotinoid pesticides on honeybees and wild bees", online: (2017) 356:6345 Science, DOI: <10.1126/science.aaa1190>.

³⁷ Legislative Assembly, *supra* note 23 at 1243.

purposes. Consumers are placed in the position of being unable to make informed choices to comply with the cosmetic pesticides ban and protect the health of their families and the environment.

Some of the plants tested are attractive to bees, hummingbirds and other pollinators and, indeed, are promoted as such (e.g. *salvia*, *lavendula*, *gaillardia*, and *coreopsis*). It is not unreasonable to presume that some customers purchased these varieties for the purpose of supporting pollinator populations and, instead, unwittingly facilitated harm to these organisms.

5. (a) Summary of Evidence

Tab 1	Receipts for plants purchased on May 27, 2017 from Canadian Tire, Home Depot, and RONA
Tab 2	Photographs of plants purchased on May 27, 2017 from Canadian Tire, Home Depot, and RONA
Tab 3	Friends of the Earth Sampling Guidelines (Project: Gardener Beware 2015)
Tab 4	Shipping Receipt dated May 31, 2017
Tab 5	University of Guelph Laboratory Services Agreement, signed January 17, 2017
Tab 6	University of Guelph Agriculture and Food Laboratory Final Report dated June 21, 2017
Tab 7	Friends of the Earth Summary of Final Report results

(b) Persons who would provide additional evidence

For information regarding the University of Guelph's Agriculture & Food Laboratory:

Agriculture & Food Laboratory
Laboratory Services Division
University of Guelph
95 Stone Road West
Guelph, ON N1H 8J7

6. Previous contact with the Ministry or Environmental Commissioner of Ontario

The applicants have not previously contacted either the Ministry of the Environment and Climate Change or the Environmental Commissioner of Ontario regarding this alleged contravention.

APPLICANT 1

CANADA
Province of Ontario

IN THE MATTER OF

TO WIT:

I, BEATRICE OLIVASTRI of the OTTAWA, ONTARIO
(full name) (city, town, etc.)

in the province of Ontario SOLEMNLY DECLARE THAT the attached documentation and statements are true to the best of my knowledge.

AND I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

DECLARED before me at the

City of Toronto

in the Province of Ontario

this 16th day of April, 2018

Beatrice Olivastri


A Notary Public, Commissioner of Oaths, etc.

Lawa Bowman
LSO 53645K.

APPLICANT 2

CANADA
Province of Ontario

IN THE MATTER OF

TO WIT:

I, John Bennett of the Hamilton, Ontario
(full name) (city, town, etc.)

in the province of Ontario SOLEMNLY DECLARE THAT the attached documentation and statements are true to the best of my knowledge.

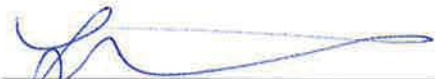
AND I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

DECLARED before me at the

City of Toronto

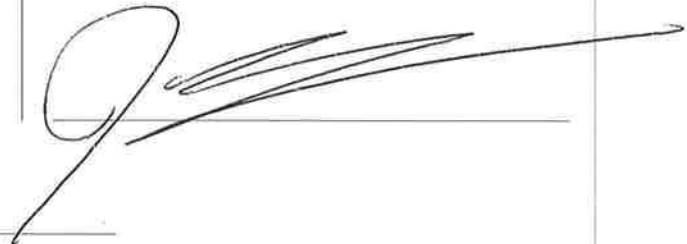
in the Province of Ontario

this 16 day of April, 2018



A Notary Public, Commissioner of Oaths, etc.

Laura Bowman
LSO#53C45K



TAB 1



LOBLAWS MERIVALE
(613) 226-6001

30-GARDEN

06038311073	PC 4IN BIDENS	HMRJ	
	\$2.99 ea or 10/\$25.00 KB		
5 @ \$2.99 ea			14.95
06038311776	PCGA 4.5IN GERBE	HMRJ	
	\$3.99 ea or 10/\$35.00 KB		
3 @ \$3.99 ea			11.97
(5)06038312055	PC AQUILEGIA 9CM	HMRJ	
5 @ \$2.99			14.95

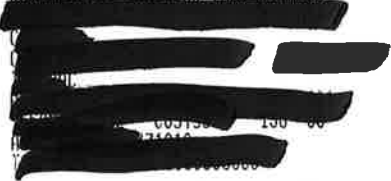
SUBTOTAL 41.87

H=HST 13% 41.87 @ 13.000% 5.44

TOTAL 47.31

-----TRANSACTION RECORD-----

GLOBAL PAYM NTS MERCHANT # 643197
 Loblaw
 1460 Merivale Road
 Nepean ON
 STORE 01082 TERM 20108242
 SLIP # 891800 REG 42
 RETAIN THIS COPY FOR YOUR RECORDS



DATE	TIME	AMOUNT
05/27/2017	15:04:26	\$ 47.31

APPROVED

-----DEBIT TND

47.31

You could have earned 470
 PC points with President's Choice
 Financial MasterCard. Apply Today
 Visit pcfincanial.ca

 GST # 12223-5922 RT0001

YOUR STORE MANAGER
 Catharine Rowe
 Thank You, Come Again !
 2017/05/27 15:04
 9810 9810 42 8918

 TELL US HOW WE DID TODAY! MONTHLY CHANCES
 TO WIN \$5000 VISIT WWW.STOREOPINION.CA
 OR CALL 1-877-234-2322 SEE CUSTOMER
 SERVICE DESK FOR FULL CONTEST RULES OR
 WWW.STOREOPINION.CA STORE: 01082
 CODE: 052717 150442 8918 01082



LOWE'S COMPANIES CANADA, ULC
 340 WEST HUNT CLUB RD
 OTTAWA, ON K2E 0B7 (613) 274-3984
 GST #: 84334-7741 RT0001

- SALE -

SALES#: 53089181 2224762 TRANS#: 18906636 05/27/17

Evolution slide
 588153 16 GARDEN TREASURES 1.00 *gerbera bowl*

Yellow
 9.99 DISCOUNT EACH
 2 @
 19.98 1 GALLON PERKIN
 4.97
 5.62 DISCOUNT EACH
 587863 10" SPRING PLANTER 14.15
 15.99 DISCOUNT EACH -1.84

*gerbera
 daisy
 planter*

SUBTOTAL: 36.80
 GST (AST): 4.78
 INVOICE 18283 TOTAL: 41.58
 ANEX: 41.58
 TOTAL DISCOUNT: 4.79

AIR MILES COLLECTOR NUMBER: XXXXXX5193
 THANK YOU FOR USING YOUR AIR MILES CARD AT LOWE'S

[REDACTED]

STORE: 3089 TERMINAL: 18 05/27/17 13:37:45
 # OF ITEMS PURCHASED: 4
 EXCLUDES FEES, SERVICES AND SPECIAL ORDER ITEMS



THANK YOU FOR SHOPPING LOWE'S.
 SEE REVERSE SIDE FOR RETURN POLICY.
 STORE MANAGER: SYLVAIN PROULX

WE HAVE THE LOWEST PRICES, GUARANTEED!

 * YOUR OPINIONS COUNT!
 * REGISTER FOR A CHANCE TO BE
 * ONE OF FIVE \$300 WINNERS DRAWN MONTHLY!
 * REGISTER BY COMPLETING A GUEST SATISFACTION SURVEY
 * WITHIN ONE WEEK AT: www.loves.ca/survey
 * YOUR ID # 16283 3089 147
 * NO PURCHASE NECESSARY TO ENTER OR WIN.
 * VOID WHERE PROHIBITED. MUST BE 18 OR OLDER TO ENTER.
 * OFFICIAL RULES & WINNERS AT: www.loves.ca/survey

 STORE: 3089 TERMINAL: 18 05/27/17 13:37:45

RONA H & G

585 West Hunt Club Road
Nepean, Ontario K2G 5X6
(613)226-5636

ITEM	QTY	PRICE	TOTAL
841102001010	2	2.79 EA	5.58H <i>cosmo</i>
ANNUALS AND VEGETABLES AS.606			5.58H
620869000289	1	7.99 EA	7.99H <i>Gaillardia</i>
PERENNIAL ASSORTED 17CM			7.99H <i>Javandira</i>
620869000289	2	7.99 EA	15.98H
PERENNIAL ASSORTED 17CM			15.98H
620869000081	1	7.99 EA	7.99H <i>F</i>
PERENNIAL ASSORTED 26A			7.99H
Original Price:	10.99		<i>Sweet daisy</i>

You Saved Today: \$3.00

Subtotal: \$37.54

GST/HST: \$4.88

Total: \$42.42

~~\$42.42~~

[REDACTED]

Total bonus miles awarded: 3

Employee: James

RONA inc.
GST/HST # 103039624

Exchange or Refund on any product in its original packaging within 90 days of purchase with receipt. Some exceptions may apply.

Interested in a career with RONA?
Apply on-line at www.careers.rona.ca

4776 55550 19 15 5/27/17 12:56

YOU COULD WIN
\$1,000 in RONA gift cards!

To participate, answer a short survey on www.opinion.rona.ca

Access code: G5R5555001A28V

Last day to fill out the survey:
June 6, 2017



CANADIAN TIRE # 258 ✓

1820 Merivale Road, Nepean Ontario
613-224-9330

RECEIPT REQUIRED FOR ALL RETURNS

REG #:58 05/27/2017 12:20:58 TRANS #:66
OPERATOR #: 258 Float: 001

3X033-4907-2 @ \$ 5.990 ea.
PERENNIAL ASST \$ 17.97

(SAVED \$ 9.00 @ 3.00 ea.)
5X033-4300-4 @ \$ 3.990 ea. *primula*

PERENNIAL ASST \$
(SAVED \$ 5.00 @ 1.00 ea.)
4X033-3637-0 @ \$ 4.990 ea.
GERBERA 4.5"+ \$ 96

SUBTOTAL \$ 57.88
13% HST \$ 7.52
5% HST \$ 0.00
TOTAL \$ 65.40
AMEX TEND \$ 65.40

CHIP CARD

2017/05/27 12:21:41

REF #: 166026430 0010010011 C

00 APPROVED - THANK YOU 025
IMPORTANT

Retain this copy for your records

You could have collected \$2.32 in
CT 'Money' if you paid with a
Canadian Tire Options MasterCard.*

*Terms & conditions apply.
Visit ctfs.com/ctm.

TODAY YOU SAVED
\$ 14.00
AT CANADIAN TIRE.

CUSTOMER COPY

Visit canadiantire.ca or download the
Canadian Tire Mobile App today!

At Canadian Tire, We Care!
Tell us how we did today. You could win
a \$1000 Canadian Tire Gift Card! Submit
a survey at: www.telldntire.com OR via
telephone: 1-888-431-5595. No purchase
necessary. Contest ends 6-30-17. Open
to legal residents of Canada, age of
majority or older. Math skill-test
required. Odds of winning depend on #
of entries received. Conditions apply.
For contest rules visit website.

2526-8020-65700-1584



0025817052732580000000010066

Exchanges/refunds require original
receipt and ID may be required. Product



More saving.
More doing.SM

1900 BASELINE ROAD, OTTAWA, ONTARIO
JASON DOCKRILL STORE MANAGER 723-5900

7026 00049 58286 27/05/17 02:26 PM
CASHIER CHARLES

778365111258 16cm Peren <A>	39.90
507.98	
778365111265 16cm VigPrem <A,S>	8.98
623390661233 VGRO ANN 4.3 <A,S>	
303.33	9.99
778365000156 23CM PERENN <A>	12.98

Gerbera Primula
Muska Daisy
Gerbera
Salvia

SUBTOTAL	71.85
GST/HST	9.34
TOTAL	\$81.19

XXXXXXXXXXXX6021

AMEX

CAD\$ 81.19

TA
Verified By: [Redacted]
[Redacted]
[Redacted]
[Redacted]



7026 49 58286 27/05/2017 1790

13% HST R135772911

RETURN POLICY DEFINITIONS
POLICY ID DAYS POLICY EXPIRES ON
A 1 90 25/08/2017
THE HOME DEPOT RESERVES THE RIGHT TO
LIMIT / DENY RETURNS. PLEASE SEE THE
RETURN POLICY SIGN IN STORES FOR
DETAILS.

KEEP YOUR RECEIPT FOR FASTER RETURNS
SHOP ONLINE AT www.homedepot.ca
More saving. More Doing.

ENTER FOR A CHANCE
TO WIN A \$3,000
HOME DEPOT GIFT CARD!

Tell us about your store visit!
Complete our short survey and
enter for a chance to win at:

www.homedepot.com/survey

You will need the following to enter
on-line:

User ID:
HLM 123887 116910

Password:
17277 116861

Entries must be completed within 14 days
of purchase. Entrants must be 18 or
older to enter. See complete rules on
website. No purchase necessary.

(Le sondage est l'élément offert en

TAB 2



Coreopsis grandiflora
Early Sunrise

GERBERA
CORONA BAST
CORONA DE JAMILON

GERBERA
Green Inc/Cultivar Inc. CAM
Wynnton, Florida, Florida
Dania, FL, 33024
1.8 QT (946 ml)

vivace
Primula x polyantha
Primula 'Pink Quills'
Primula / Primula

PEREN
I come back



16 cm (6.3")
Ivace / Perenn
Gardens of the
Garden Club
1.2 g 0.37 g

OTO
GARDEN CLUB

OTO
GARDEN CLUB



vivace
perennial

Gaillardia aristata
"Gallo 50" (Dark Bicolor/Bicolor)



vivace
perennial

Lavandula angustifolia
"Munich Blue"



Monreale-Neve



TAB 3

Sampling Guidelines (Project: Gardener Beware 2015)

Included in this Kit

Insulated shipping box, plastic trash bags, disposable gloves, medium-size Ziploc® bags (pre-labeled), FOE Sample Submission Form (pre-labeled), rubbing alcohol wipes for use on your own scissors, chain of custody form (pre-labeled), cold pack for shipping samples, water proof pen

NOTE: Cold pack must be placed in the freezer the night prior to preparing and shipping the samples!

What You Will Need To Provide

Plant samples (4), scissors

Sample Procurement

Desired Amount of Each Plant

- A) The four (4) plant samples should be purchased from one or more of the following national or regional retailers: Ace Hardware, Loblaws, Sobeys, Canadian Tire – please advise if you're buying from another retailer
- B) Purchase enough plants of the same kind to have sufficient material in each bag:
 - a. The pre-labeled one *quart* Ziploc® bag should contain at least 200 grams of flower blossoms (**entire flower head with petals and pollen compartments intact**). We'll send a photo to help estimate 200 grams as soon as we buy flowers.
- C) Save your receipts for reimbursement from Friends of the Earth.

Types of plants to sample

Flowering plants (pick 4 from the list below, if possible. See Addendum for photos)

- Gaillardia
- Salvia (Avoid salvias with woody stems!)
- Scabiosa
- Asclepias (Butterfly Weed)
- Yarrow
- Daisies
- Sunflowers
- Poppies
- Cosmos
- Coreopsis

Sample Preparation

NOTE: Samples should be shipped as soon as possible after cutting, but not on a Friday, since the lab isn't open to accept shipments on the weekend. Plan your sample preparation so that you can ship soon after cutting the plants on Tuesday, Wednesday, or Thursday morning.

NOTE: Work with one sample at a time to avoid cross-contamination, confusion and errors in labeling.

- A) **Check labels:** Before preparing the first sample, check to be sure the sample labels on both the *medium*-sized Ziploc® bags match the labels on the Sample Log Sheet. The quart bag should have the sample name followed by a 1, and the gallon bag should have the sample name followed by a 2. Fill out the Sample Log Sheet with the information requested.
- B) **Prepare your workspace and clean your equipment:**
- Put on a clean pair of gloves. *****Be sure to use a NEW pair of gloves for each different sample!!!**
 - On a large, flat surface (e.g., table or counter), spread a plastic trash bag (included) over the preparation area. *****Be sure to use a NEW trash bag for each different sample, and use one included in the kit!!!**
 - Using the rubbing alcohol wipes, wipe down the scissor blades thoroughly (several times, using a fresh wipe each time) to remove any plant material or contaminating residues.
- C) **Document the process:** Take pictures before you cut, and document the process as you go! These photos will make great artwork for publications.
- D) **Prepare flower sample:** Cut at the base of the flower head where it joins the stem and place the clipped flower bloom into the medium-sized Ziploc® bag (labeled with a number 1 following the sample name). Continue collecting flowers from the plant(s) for that sample until you have sufficient material (200 grams). When you are finished preparing the flower sample, remove as much air as possible from the *medium-sized* Ziploc® sample bag and seal.
- E) **Repeat:**
- Move to next sample, following the same procedure starting with step A under “Sample Preparation”
IMPORTANT! Remember to do the following before starting on your next sample:
 - Put on a NEW pair of gloves
 - Use a NEW trash bag to cover your work area
 - Clean scissor blades with rubbing alcohol wipes
 - Complete Sample Preparation for all four samples.
- F) **Confirm:** When you are finished, you should have one Sample Log Sheet with information for four samples of flowers (*medium-sized* bag). Please scan the Log Sheet and email to beatrice@foecanada.org. Double check to be sure Sample ID on the log sheet matches Sample ID on medium-sized Ziploc® bags holding samples.

Chain of Custody

- Fill out the Sample Description (type of plant) for each sample. Use a separate line for each individual sample bag and double-check that the sample ID labels are correct.
- Print your name and provide the ship date in the Chain of Custody section at the bottom of COC form. Provide your signature beneath this section of the form.

- C) Scan and email beatrice@foecanada.org a copy of the completed COC form.
- D) Seal COC form inside the gallon Ziploc® from which you received it.

Shipping

- A) Do NOT send FOE Sample Log Sheets with the shipping box. Send back to FOE via mail or scan and e-mail (preferred; beatrice@foecanada.org).
- B) Stuff samples and cold packs into the built-in insulated compartment of the shipping box (Note: The shipping box is the same box sent to you with the sampling kit—be sure to cover the prior shipping label with the shipping label for the University of Guelph lab and leave Friends of the Earth as the return address).
- C) Seal the insulated compartment of the shipping box with the insulated top cover. If you have trouble closing the compartment, go through the samples and release any excess air in the bags.
- D) Place the Ziploc® containing the COC form on top (NOT inside) of the insulated compartment before sealing the shipping box.

Ship Next Day – please give Bea (beatrice@foecanada.org or 613 724 8690 cell or text) the estimated date/time for your shipment so that we can send you a prepaid courier label and order pickup. (**NOT on Friday or Saturday!**). If you mistakenly packed up your plants on a Friday or Saturday, store them in a refrigerator and ship ASAP on Monday (not the holiday Monday)

TAB 4



THIS IS NOT A SHIPPING LABEL. DO NOT ATTACH TO PACKAGES

SHIPMENT CONFIRMED

SHIPPER

Friends of the Earth Canada
Beatrice Olivastri
251 Bank St 2nd floor
OTTAWA, ON, K2P 1X3, CA
613-241-0085
beatrice@foecanada.org; beatrice@foecanada.org

RECEIVER

University of Guelph
Laboratory Services D
95 Stone Road West
GUELPH, ON, N1H8J7, CA
519 767 6299
aflinfo@uguelph.ca

*pd by
BAA*

SERVICE

 **FedEx Priority Overnight - 786738262273**

COST

Freight	15.76\$
Surcharges	
Fuel surcharge:	1.35\$
Subtotal	17.11\$
HST	2.23\$
Total:	19.34\$

• **PACKAGES**

PIN L W H WEIGHT DESCRIPTION

10 7 7 4 coleman box

OPTIONS

System of Units	Imperial (Inch, Lbs)
Shipment Date	2017-05-31
Delivered by	12:00, Thursday, June 1, 2017
This is a residential address	No
Pickup	Pickup on 2017-05-31 from 09:00 to 17:00.
Pickup location	Reception
Pickup Confirmation Number	57-YOWA
Reference	N/A
Payment	Your FlagShip Account
COD	No
Insurance	I do not wish to insure my shipment for more than 100CAD\$
Saturday Delivery	No
Signature Required	No
Delivery Driver Instructions	N/A

**Please note this transit time is not guaranteed. For more information, please see our Terms and Conditions.

*FedEx & UPS: If residential option was not selected, and the delivery location is a residence as per courier's discretion, additional residential

TAB 5

Date created: 2015-May-07

Last revised: 2016-Nov-10

Quote # QE1262-01

Please review this proposal and contact us if you have any questions or wish further adjustments.

If you wish to proceed as outlined, this quotation must be signed below and received by the Laboratory Services Division within 60 days either by fax or with the samples. When submitting samples, please refer to this Quote Number to ensure quoted pricing is applied.

Standard Terms and Conditions:

1. This offer remains in effect for 60 days from the date of issue. It must be re-issued if not accepted within that period.
2. The signed quotation constitutes our contractual agreement for this work. In case of dispute, this document will take precedence over other related documents for this work.
3. Specimens submitted to the University of Guelph, and any information or Intellectual Property identified by or arising from such specimens, belong to the University unless other arrangements are made in writing at the time of submission.
4. Quoted prices are based on sample numbers listed in the quotation. Should the actual sample numbers received be less than what is stated above, Laboratory Services Division reserves the right to adjust the pricing based on the actual number of samples received.
5. Rush analysis should be requested in writing to the laboratory supervisor by a client representative with budgetary authority. A minimum surcharge of 50% will be applied.
6. Client requests for repeat analysis are subject to additional fees at the discretion of the laboratory.
7. University of Guelph, Laboratory Services Division's liability is limited to the quoted individual sample price.
8. Reports are sent to the client by fax or e-mail unless mail delivery is specifically requested.
9. Transportation of samples, provision of sample containers and shipping charges are the responsibility of the client.
10. The name Laboratory Services Division shall not be used in any way in connection with the sale, offer or advertisement of any article, process or service without written consent of the Co-Executive Director.
11. Invoices are sent after the final report. Payment terms are 30 days from the statement date. Interest charges of 1.5% per month shall apply to overdue accounts.
12. Laboratory Services Division reserves the right to suspend or discontinue any work until satisfactory payment arrangements are established.
13. All client information is treated as confidential and will not be provided to anyone other than the client without the client's prior written permission except where required by law.
14. Disclosure of results:
Results are sent to the client. Reports will only be sent to third parties, e.g. insurance agents, on the written request of the client.
15. The attached submission form must be used when submitting samples for testing to ensure that all terms and conditions of the quote, including price, are applied.

Laboratory Services Division must receive client authorization for this quote by 2017-Jan-09.

Laboratory Services Division reserves the right to revise prices annually. Unless otherwise notified, the pricing presented in this quote is effective until 2017-May-01.

TO SECURE PRICING AND OTHER TESTING REQUIREMENTS FOR YOUR PROJECT, THE QUOTE NUMBER MUST ACCOMPANY ALL SAMPLES.

Authority to Proceed

BEATRICE OLIVASTRI
Beatrice Olivastri
Date *Jan 17, 2017*
FRIENDS OF THE EARTH CANADA
University of Guelph, Laboratory Services Division

Lynne Fruhner, Manager Business Development
Lynne Fruhner
Date *2016 Nov 09*

University of Guelph, Laboratory Services Division, Agriculture and Food Laboratory, 95 Stone Road West, Guelph, Ontario N1H 8J7

Telephone: 519 767-6299 Fax: 519 767-6240 email: afinfo@uoguelph.ca

Page 2 of 2

TAB 6

Submitted By:

Client ID: 1781934

FRIENDS OF THE EARTH CANADA

BEATRICE OLIVASTRI
 251 BANK ST, 2ND FLOOR
 OTTAWA, ON K2P 1X3

Owner:

BEATRICE OLIVASTRI

Phone: 613 724-8690

Sampling Date: 2017-May-29

Received Date: 2017-Jun-01

Quotation #: QE1262-02

LC-MS/MS multiresidue screen Method ID:TOPS-142

Date Authorized: 2017-Jun-21 11:53

Sample ID	Client Sample ID	Specimen type	Sampling date / time	Test	Result	Units	Note
0001	CAN01	Plant-Tissue	17-May-29	Pesticide Screen	Detected		
0001	CAN01	Plant-Tissue	17-May-29	Acetamiprid	Not detected		
0001	CAN01	Plant-Tissue	17-May-29	Clothianidin	Not detected		
0001	CAN01	Plant-Tissue	17-May-29	Nitenpyram	Not detected		
0001	CAN01	Plant-Tissue	17-May-29	Dinotefuran	Not detected		
0001	CAN01	Plant-Tissue	17-May-29	carbofuran	<MDL		
0001	CAN01	Plant-Tissue	17-May-29	Thiacloprid	Not detected		
0001	CAN01	Plant-Tissue	17-May-29	imidacloprid	0.84	ppm	
0001	CAN01	Plant-Tissue	17-May-29	Thiamethoxam	Not detected		
0001	CAN01	Plant-Tissue	17-May-29	flonicamid	0.16	ppm	
0002	CAN02	Plant-Tissue	17-May-29	Pesticide Screen	Detected		
0002	CAN02	Plant-Tissue	17-May-29	Dinotefuran	Not detected		
0002	CAN02	Plant-Tissue	17-May-29	Propamocarb	<MDL		
0002	CAN02	Plant-Tissue	17-May-29	Thiacloprid	Not detected		
0002	CAN02	Plant-Tissue	17-May-29	flonicamid	Not detected		
0002	CAN02	Plant-Tissue	17-May-29	monocrotophos	<MDL		
0002	CAN02	Plant-Tissue	17-May-29	imidacloprid	Not detected		

LC-MS/MS multiresidue screen Method ID:TOPS-142Continued

Date Authorized: 2017-Jun-21 11:53

0002	CAN02	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0002	CAN02	Plant-Tissue	17-May-29	Etoxazole	<MDL	
0002	CAN02	Plant-Tissue	17-May-29	Imazamethabenz-methyl	<MDL	
0002	CAN02	Plant-Tissue	17-May-29	Dioxacarb	<MDL	
0002	CAN02	Plant-Tissue	17-May-29	dicrotophos	<MDL	
0002	CAN02	Plant-Tissue	17-May-29	vamidothion	<MDL	
0002	CAN02	Plant-Tissue	17-May-29	chloridazon	<MQL	
0002	CAN02	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0002	CAN02	Plant-Tissue	17-May-29	Mephosfolan	<MDL	
0002	CAN02	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0002	CAN02	Plant-Tissue	17-May-29	Carbendazim	<MDL	
0002	CAN02	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	
0002	CAN02	Plant-Tissue	17-May-29	dimethoate	<MDL	
0003	CAN03	Plant-Tissue	17-May-29	Pesticide Screen	Detected	
0003	CAN03	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0003	CAN03	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0003	CAN03	Plant-Tissue	17-May-29	methamidophos	<MDL	
0003	CAN03	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0003	CAN03	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	
0003	CAN03	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0003	CAN03	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0003	CAN03	Plant-Tissue	17-May-29	flonicamid	Not detected	
0003	CAN03	Plant-Tissue	17-May-29	napropamide	<MDL	
0003	CAN03	Plant-Tissue	17-May-29	imidacloprid	0.040	ppm

LC-MS/MS multiresidue screen Method ID:TOPS-142Continued

Date Authorized: 2017-Jun-21 11:53

0004	HOM01	Plant-Tissue	17-May-29	Pesticide Screen	Detected	
0004	HOM01	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0004	HOM01	Plant-Tissue	17-May-29	Pyraclostrobin	0.23	ppm
0004	HOM01	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0004	HOM01	Plant-Tissue	17-May-29	flonicamid	0.021	ppm
0004	HOM01	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0004	HOM01	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0004	HOM01	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0004	HOM01	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0004	HOM01	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	
0004	HOM01	Plant-Tissue	17-May-29	boscalid	2.0	ppm
0005	HOM02	Plant-Tissue	17-May-29	Pesticide Screen	Not detected	
0005	HOM02	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	
0005	HOM02	Plant-Tissue	17-May-29	flonicamid	Not detected	
0005	HOM02	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0005	HOM02	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0005	HOM02	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0005	HOM02	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0005	HOM02	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0005	HOM02	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0006	HOM03	Plant-Tissue	17-May-29	Pesticide Screen	Detected	
0006	HOM03	Plant-Tissue	17-May-29	Carbendazim	<MDL	
0006	HOM03	Plant-Tissue	17-May-29	Pyraclostrobin	<MDL	
0006	HOM03	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	

LC-MS/MS multiresidue screen Method ID:TOPS-142Continued

Date Authorized: 2017-Jun-21 11:53

0006	HOM03	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0006	HOM03	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0006	HOM03	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0006	HOM03	Plant-Tissue	17-May-29	boscalid	0.030	ppm
0006	HOM03	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0006	HOM03	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0006	HOM03	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0006	HOM03	Plant-Tissue	17-May-29	flonicamid	0.088	ppm
0007	HOM04	Plant-Tissue	17-May-29	Pesticide Screen	Detected	
0007	HOM04	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0007	HOM04	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0007	HOM04	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0007	HOM04	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0007	HOM04	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0007	HOM04	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	
0007	HOM04	Plant-Tissue	17-May-29	flonicamid	0.064	ppm
0007	HOM04	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0008	HOM05	Plant-Tissue	17-May-29	Pesticide Screen	Not detected	
0008	HOM05	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0008	HOM05	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0008	HOM05	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0008	HOM05	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0008	HOM05	Plant-Tissue	17-May-29	flonicamid	Not detected	
0008	HOM05	Plant-Tissue	17-May-29	Dinotefuran	Not detected	

LC-MS/MS multiresidue screen Method ID:TOPS-142Continued

Date Authorized: 2017-Jun-21 11:53

0008	HOM05	Plant-Tissue	17-May-29	Thiamethoxam	Not detected
0008	HOM05	Plant-Tissue	17-May-29	Nitenpyram	Not detected
0009	LOB01	Plant-Tissue	17-May-29	Pesticide Screen	Detected
0009	LOB01	Plant-Tissue	17-May-29	Thiacloprid	Not detected
0009	LOB01	Plant-Tissue	17-May-29	imidacloprid	Not detected
0009	LOB01	Plant-Tissue	17-May-29	Clothianidin	Not detected
0009	LOB01	Plant-Tissue	17-May-29	Nitenpyram	Not detected
0009	LOB01	Plant-Tissue	17-May-29	flonicamid	0.34 ppm
0009	LOB01	Plant-Tissue	17-May-29	spinetoram	<MDL
0009	LOB01	Plant-Tissue	17-May-29	Dinotefuran	Not detected
0009	LOB01	Plant-Tissue	17-May-29	Thiamethoxam	Not detected
0009	LOB01	Plant-Tissue	17-May-29	Acetamiprid	Not detected
0009	LOB01	Plant-Tissue	17-May-29	Carbendazim	<MDL
0010	LOB02	Plant-Tissue	17-May-29	Pesticide Screen	Not detected
0010	LOB02	Plant-Tissue	17-May-29	flonicamid	Not detected
0010	LOB02	Plant-Tissue	17-May-29	Dinotefuran	Not detected
0010	LOB02	Plant-Tissue	17-May-29	Clothianidin	Not detected
0010	LOB02	Plant-Tissue	17-May-29	Nitenpyram	Not detected
0010	LOB02	Plant-Tissue	17-May-29	Thiacloprid	Not detected
0010	LOB02	Plant-Tissue	17-May-29	Acetamiprid	Not detected
0010	LOB02	Plant-Tissue	17-May-29	Thiamethoxam	Not detected
0010	LOB02	Plant-Tissue	17-May-29	imidacloprid	Not detected
0011	LOB03	Plant-Tissue	17-May-29	Pesticide Screen	Detected
0011	LOB03	Plant-Tissue	17-May-29	Thiamethoxam	Not detected

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0011	LOB03	Plant-Tissue	17-May-29	spinetoram	0.43	ppm
0011	LOB03	Plant-Tissue	17-May-29	Fenhexamid	0.044	ppm
0011	LOB03	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0011	LOB03	Plant-Tissue	17-May-29	Spinosyn D	0.0090	ppm
0011	LOB03	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0011	LOB03	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0011	LOB03	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0011	LOB03	Plant-Tissue	17-May-29	Carbendazim	<MDL	
0011	LOB03	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0011	LOB03	Plant-Tissue	17-May-29	chloridazon	<MDL	
0011	LOB03	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0011	LOB03	Plant-Tissue	17-May-29	flonicamid	1.4	ppm
0012	LOW01	Plant-Tissue	17-May-29	Pesticide Screen	Detected	
0012	LOW01	Plant-Tissue	17-May-29	Etoxazole	<MDL	
0012	LOW01	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0012	LOW01	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0012	LOW01	Plant-Tissue	17-May-29	acephate	<MQL	
0012	LOW01	Plant-Tissue	17-May-29	flonicamid	0.028	ppm
0012	LOW01	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0012	LOW01	Plant-Tissue	17-May-29	paclobutrazol	<MQL	
0012	LOW01	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0012	LOW01	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	
0012	LOW01	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0012	LOW01	Plant-Tissue	17-May-29	Thiacloprid	Not detected	

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0012	LOW01	Plant-Tissue	17-May-29	chloridazon	0.069	ppm
0012	LOW01	Plant-Tissue	17-May-29	methamidophos	<MQL	
0013	LOW02	Plant-Tissue	17-May-29	Pesticide Screen	Detected	
0013	LOW02	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	
0013	LOW02	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0013	LOW02	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0013	LOW02	Plant-Tissue	17-May-29	paclobutrazol	0.13	ppm
0013	LOW02	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0013	LOW02	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0013	LOW02	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0013	LOW02	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0013	LOW02	Plant-Tissue	17-May-29	flonicamid	1.6	ppm
0014	LOW03	Plant-Tissue	17-May-29	Pesticide Screen	Not detected	
0014	LOW03	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0014	LOW03	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0014	LOW03	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0014	LOW03	Plant-Tissue	17-May-29	flonicamid	Not detected	
0014	LOW03	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0014	LOW03	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0014	LOW03	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	
0014	LOW03	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0015	RON01	Plant-Tissue	17-May-29	Pesticide Screen	Detected	
0015	RON01	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0015	RON01	Plant-Tissue	17-May-29	imidacloprid	Not detected	

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0015	RON01	Plant-Tissue	17-May-29	Thiamethoxam	Not detected
0015	RON01	Plant-Tissue	17-May-29	Carbendazim	<MDL
0015	RON01	Plant-Tissue	17-May-29	Clothianidin	Not detected
0015	RON01	Plant-Tissue	17-May-29	Nitenpyram	Not detected
0015	RON01	Plant-Tissue	17-May-29	flonicamid	0.027 ppm
0015	RON01	Plant-Tissue	17-May-29	Dinotefuran	Not detected
0015	RON01	Plant-Tissue	17-May-29	Thiacloprid	Not detected
0016	RON02	Plant-Tissue	17-May-29	Pesticide Screen	Detected
0016	RON02	Plant-Tissue	17-May-29	Acetamiprid	Not detected
0016	RON02	Plant-Tissue	17-May-29	Thiacloprid	Not detected
0016	RON02	Plant-Tissue	17-May-29	flonicamid	Not detected
0016	RON02	Plant-Tissue	17-May-29	napropamide	0.015 ppm
0016	RON02	Plant-Tissue	17-May-29	Nitenpyram	Not detected
0016	RON02	Plant-Tissue	17-May-29	Thiamethoxam	Not detected
0016	RON02	Plant-Tissue	17-May-29	imidacloprid	<MQL
0016	RON02	Plant-Tissue	17-May-29	Clothianidin	Not detected
0016	RON02	Plant-Tissue	17-May-29	Dinotefuran	Not detected
0017	RON03	Plant-Tissue	17-May-29	Pesticide Screen	Detected
0017	RON03	Plant-Tissue	17-May-29	Thiacloprid	Not detected
0017	RON03	Plant-Tissue	17-May-29	Dinotefuran	Not detected
0017	RON03	Plant-Tissue	17-May-29	Thiamethoxam	Not detected
0017	RON03	Plant-Tissue	17-May-29	imidacloprid	0.080 ppm
0017	RON03	Plant-Tissue	17-May-29	napropamide	<MQL
0017	RON03	Plant-Tissue	17-May-29	Nitenpyram	Not detected

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0017	RON03	Plant-Tissue	17-May-29	Carbendazim	<MQL	
0017	RON03	Plant-Tissue	17-May-29	paclobutrazol	<MQL	
0017	RON03	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0017	RON03	Plant-Tissue	17-May-29	Pyraclostrobin	0.33	ppm
0017	RON03	Plant-Tissue	17-May-29	boscalid	1.1	ppm
0017	RON03	Plant-Tissue	17-May-29	flonicamid	Not detected	
0017	RON03	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0018	RON04	Plant-Tissue	17-May-29	Pesticide Screen	Detected	
0018	RON04	Plant-Tissue	17-May-29	Acetamiprid	Not detected	
0018	RON04	Plant-Tissue	17-May-29	flonicamid	Not detected	
0018	RON04	Plant-Tissue	17-May-29	Nitenpyram	Not detected	
0018	RON04	Plant-Tissue	17-May-29	Clothianidin	Not detected	
0018	RON04	Plant-Tissue	17-May-29	Thiacloprid	Not detected	
0018	RON04	Plant-Tissue	17-May-29	imidacloprid	Not detected	
0018	RON04	Plant-Tissue	17-May-29	Dinotefuran	Not detected	
0018	RON04	Plant-Tissue	17-May-29	Thiamethoxam	Not detected	
0018	RON04	Plant-Tissue	17-May-29	napropamide	<MQL	

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These test results pertain only to the specimens tested.

TAB 7

Sample Location	Plant tested	Store Purchased from	Pesticide Residue	Concentration (ppm)	HB Contact LD50	HB Oral LD50
OTT 01	Coreopsis grandiflora Early Sunrise	Canadian Tire	imidacloprid	0.84	0.081	0.0037
OTT 01	Coreopsis grandiflora Early Sunrise	Canadian Tire	flonicamid	0.16	>51100	>53300
OTT 02	Gerbera Daisy	Canadian Tire	ND			
OTT 03	Primula x polyantha	Canadian Tire	imidacloprid	0.4	0.081	0.0037
OTT 04	Alpine aster	Home Depot	pyraclostrobin	0.23	>100	>73.1
OTT 04	Alpine aster	Home Depot	flonicamid	0.021	>51100	>53300
OTT 04	Alpine aster	Home Depot	boscalid	2	>200	100
OTT 05	Gerbera	Home Depot	ND			
OTT 06	Primula	Home Depot	boscalid	0.03	>200	100
OTT 06	Primula	Home Depot	flonicamid	0.088	>51100	>53300
OTT 07	Salvia Nemorosa	Home Depot	flonicamid	0.064	>51100	>53300
OTT 08	Shasta Daisy Margeurite	Home Depot	ND			
OTT 09	"Bee Alive" Bidens	Loblaws	flonicamid	0.34	>51100	>53300
OTT 10	Columbine Ancolie	Loblaws	ND			
OTT 11	Gerbera	Loblaws	spinetoram	0.43	0.024	0.14
OTT 11	Gerbera	Loblaws	fenhexamid	0.044	>200	>102.07
OTT 11	Gerbera	Loblaws	spinosyn D	0.009		
OTT 11	Gerbera	Loblaws	flonicamid	1.4	>51100	>53300
OTT 12	Gerbera Daisy	Lowe's	flonicamid	0.028	>51100	>53300
OTT 12	Gerbera Daisy	Lowe's	chloridazon	0.069	>200	>200
OTT 13	Evolution Salvia	Lowe's	paclobutrazol	0.13	>40	>2
OTT 13	Evolution Salvia	Lowe's	flonicamid	1.6	>51100	>53300
OTT 14	Moonshine Yarrow	Lowe's	ND			
OTT 15	Cosmos Sonata Mixture	Rona	flonicamid	0.027	>51100	>53300
OTT 16	Gallardia aristata	Rona	napropamide	0.015	>100	>100
OTT 17	Lavandula angustifolia Hidcote Blue	Rona	imidacloprid	0.08	0.081	0.0037
OTT 17	Lavandula angustifolia Hidcote Blue	Rona	pyraclostrobin	0.33	>100	>73.1
OTT 17	Lavandula angustifolia Hidcote Blue	Rona	boscalid	1.1	>200	100
OTT 18	Leuanthemum Sweet Daisy Christine	Rona	ND			

	Represents a neonicotinoid
	Represents a Class 9 pesticide banned for cosmetic use in Ontario
	Represents a neonicotinoid that is also a Class 9 pesticide banned for cosmetic use in Ontario
LD50 values	The dose of neonicotinoid at which 50 percent mortality of test bees is observed following oral exposure
LD50	Lethal dose; short term poisoning potential of a material (acute toxicity)
	If the LD50 is \leq 2ppm/bee, then the pesticide is classified as Toxicity Category I, "highly toxic to bees"
	If the LD50 is less than 11ppm/bee but greater than 2ppm/bee, it is classified as Toxicity Category II, "toxic to bees"
	If the LD50 is >11ppm/bee (Toxic Category III, it is relatively nontoxic, and no bee caution statement is required on the label
>	More than
MQL	Minimum Quantification Limit
MDL	Minimum Detection Limit
ND	Not Detected