



17th February, 2017

The Hon. N.H. Cole Simons, JP MP
Minister for the Environment, Planning and Parks
Botanical Gardens, Paget

Sent by email: nhcsimons@gov.bm
Cc to pollutioncontrol@gov.bm

Dear Minister Simons

The BUZZ group formed in 2013 and started work, under the auspices of the Bermuda Environmental Sustainability Taskforce (BEST) and in consultation with experts in various areas both local and overseas, to look at the causes of the local and global die-off of honey-bees. It quickly became evident that there are a number of threats to bees, weakening their health so that they are susceptible to the varroa mite and viruses. One of the threats that many consider indisputable is the impact of pesticides on bees, including (but more than likely not limited to) the group of 'systemic' pesticides that includes RoundUp, Rodeo and neonicotinoids.

From the many scientific reports published around the world in recent years, it seems that the chemical formulations of most pesticides also pose threats to human health and so we were alarmed to learn that it is only the active ingredient in a formulation (eg. glyphosate) that is subject to testing and regulation. The so-called 'inert' ingredients that make up the balance of the formulation (as much as 98%) are untested and unregulated. The testing for glyphosates that Bermuda undertook recently suddenly seems inadequate especially since we discovered that there is real concern about one of the 'inert' ingredients, a coformulant in Rodeo and RoundUp. That ingredient is POE-tallowamine and it is now being banned in countries in the EU (<https://www.euractiv.com/section/agriculture-food/news/eu-agrees-ban-on-glyphosate-co-formulant/>). One question we would like to have answered is, how will our Government consider the impact of the inert ingredients in toxic products that we import and use in Bermuda?

The BUZZ appreciates the opportunity to provide these comments and further questions arising out of the glyphosate testing exercise. Our fundamental concern is

that there are few formal controls in place in respect of pesticide use in Bermuda. The testing of one chemical in a formulation of chemicals used on the island does not seem to serve the issue well. The Government must not proceed without stopping for a moment to consider the cumulative impact of the numerous chemical cocktails that are used every day and to consider the value of forging a new way forward.

With this in mind, we urge the Government of Bermuda to develop a vision for our country as it relates to how and when we need to use toxic chemicals (like pesticides) within the eco-system of our small island home. Such a vision would ideally be built on a foundation that embraces an approach based on the Precautionary Principle:

“If an action or policy has a suspected risk of causing harm to the public, or to the environment, in the absence of scientific consensus that the action or policy is not harmful, the burden of proof that it is not harmful falls on those taking that action.” (Wikipedia)

We want our Government to be more prudent and to serve our residents better by reducing our exposure to environmental toxins and food contaminants as much as possible. The Pesticide Safety Act 2009 is still not ‘In Force’ given the absence of supporting Regulations. This is unacceptable some 7 years down the road. However, despite the status of the Act, we do understand that DENR staff is guided by the Importation regulation.

Let’s make good use of this ‘pause’, as an opportunity to consider how we use chemicals in our community and to consider how we can reduce that use given the overwhelming evidence of negative impacts on human and environmental health. One way to accomplish this would be for us to create and formally adopt an Integrated Pest Management (IPM) Policy and Program as a way to consider alternative options for the management of weeds and pests in Bermuda. Reducing our dependence on toxic products (like pesticides) will also help to address the inevitable resistance that pests and weeds build up to any product. For instance, jurisdictions that have been heavy users of Roundup have now had to incorporate the use of another Monsanto product (Dicamba) to counteract weed resistance.

An IPM program would provide an excellent framework for some of the recommendations made in the Government’s ‘Glyphosate Monitoring Study’ report, and discussions we have had with Government staff and local farmers lead us to believe that there is already support for this type of approach. Key elements of an IPM would provide for:

- Monitoring of pesticide impacts
- Approval of alternative weed control processes, including the option of mechanical means of removing weeds (which could potentially be made part of a rehab program for non-violent offenders in the prison system or as part of a community service program)
- Public education
- A communication plan and stakeholder input.

Over the past few years, the island of St Helena in the south Atlantic (another British Overseas Territory) has been successful in developing and implementing an island-wide IPM program. We had the opportunity to speak with the key staff at St Helena and have reviewed their policy. We are attaching a version that we redrafted for Bermuda so that our Government can see what might be involved. We feel confident that the Government could get some guidance from St. Helena as it works on Bermuda's own program.

To further illustrate the level of local concern, recent discussions, referred to in points below, have raised many other questions related to pesticide use in Bermuda that we would like to put to the Ministry. We were challenged as to how to present them all and decided to use the list of subject areas covered in The Pesticide Safety Act 2009 as a guide. We trust that such an approach will be more helpful than not:

1. Importation:

- a. What value might there be to consolidating the importation and distribution of all toxic products (like pesticides) through the existing Government Marketing Centre, although we would suggest a more fitting name like Bulk Importation and Distribution Depot (BIDD), so that they are the only importer and distributor into the island? This would, (i) make it more possible to track every toxic product being brought in and used on the island, (ii) allow for other controls to be put in place and meaningful reports generated, and (iii) allow for monitoring of where training of users is needed.
- b. How will equal attention be paid to other 'systemics', like neonicotinoids? Of particular concern is Imidacloprid, which we were told is being used in Bermuda.
- c. The Government's presentation on January 12, 2017, included three slides entitled Pesticide Imports to Bermuda. The slides show the pesticides that are Restricted, Prohibited and Approved:
 - 6 pesticides are shown as Approved for importation namely: 2,4 D, Bromoxynil One importer (Nursery), Dimethoate, Diquat (diquat dibromide), Malathion, and Trifluralin.
 - 22 pesticides are listed as Restricted i.e. these active ingredients are restricted due to environmental or health concerns related to the percentage of active ingredient in the product, the packaging of the product, the formulation of the product, or the intended end use (location) of the product.
 - 35 pesticides are listed as Prohibited, i.e. these active ingredients are prohibited from importation due to environmental or health concerns.

Please explain why the lists provided during the presentation differ significantly from the Prohibited Pesticide List available on the Government website? The document on the website is different: it only presents prohibited and restricted pesticides, and only lists 16

restricted pesticides and 20 prohibited pesticides. Which of the lists is correct? Also, is the correct version (of these lists) comprehensive in terms of addressing all of the pesticides that enter and are used in Bermuda? If not, why not?

- d. Please explain what is actually meant by Restricted, Prohibited and Approved. What policy and/or practice is used to make the decision as to the appropriate category chosen? What changes to these lists have occurred over time and why?
- e. How does the government keep the current and historical statistics on pesticides that reflect what has been approved and/or denied for importation and use in Bermuda? How is a decision to approve or deny justified? Is the information accessible to the public?

2. **Sale:**

- a. What value might there be to restricting the retail sale of toxic products (like pesticides) directly to homeowners, making them only available through the central depot BIDD where personnel would be trained and licensed to advise on any sales/purchases of these products? This would mean that they would no longer be available at nurseries or hardware stores (like Masters and Gorhams) where personnel may or may not be able to provide advice and oversight. This could also assist to control misinformation where, for instance, a person at the public meeting stated that RoundUp is not a 'systemic'.

3. **Application:**

- a. What are the unintended consequences when the concentrated form of toxic chemical products aren't properly diluted?
- b. How does roadside spraying in Bermuda pose greater risk than, say, in other places where few people use the roads?
- c. How can streets/neighbourhoods/residences 'opt out' of being sprayed, due to concerns around exposure?
- d. In an article in the Royal Gazette a spokesperson for the Ministry of Public Works indicated that crews were instructed to stop spraying RoundUp in playgrounds (<http://www.royalgazette.com/news/article/20160429/controversial-pesticide-used-at-playground>). Will that continue? What about in other places where the public frequent: hospital grounds, children's nurseries, old people's homes, parks, railway trails, etc?

4. **Licencing/Training:**

- a. Can you outline how the training programmes for all aspects of the handling of toxic products (like pesticides) will be introduced,

implemented, monitored and managed and how they will all be kept up-to-date?

- b. Which department will develop and manage the guidelines for development/implementation/licencing and management of training programs, as well as regular relicencing?

5. **Transportation, Handling, Storage, Disposal:**

- a. Who will be responsible for developing the policies and practices for the transportation, handling, storage and disposal of toxic products (like pesticides) in the absence of the regulations to the Pesticide Safety Act 2009?

6. **Enforcement:**

- a. Recognizing the general ineffectiveness of conventional attempts at enforcement of policy infractions, who will be responsible for identifying creative ways to communicate the new vision and to encourage public participation and adherence to policies?

7. **Education:**

- a. Members of the Bermuda public are entitled to make informed purchasing decisions but often there is a sense that if something is available 'for sale', then that means that it is 'safe'. What is the commitment to providing general education around safer alternative products to complement the controls that will be put in place with respect to toxic products (like pesticides) that are to be used in Bermuda?

8. **Health:**

- a. How can it be ensured that products being used in Bermuda do not bio-accumulate or cause other health consequences?
- b. As a priority, will there be a programme of ongoing, regular testing of any toxic products (like pesticides) being used in Bermuda?
- c. What is the impact of including 'sprayed' vegetation in the material being composted at Marsh Folly for use by home gardeners?
- d. How can the public access the information kept by the Ministry of Health in respect to the thresholds of safe exposure to toxic products (like pesticides)?
- e. How is a testing lab selected? By availability? capability? price? standards for accuracy?
- f. What is the response to the recent (Jan 2017) Ecologist article that suggests that RoundUp causes serious liver damage to rats even at the low doses permitted by regulators? <http://www.theecologist.org/>

[News/news_analysis/2988500/
roundup_residues_in_food_cause_fatty_liver_disease.html](https://www.buzznews.com/news/news_analysis/2988500/roundup_residues_in_food_cause_fatty_liver_disease.html)

- g. What is the degree of concern in the Ministry of Health to the action of 'systemic' chemicals (like RoundUp/Rodeo/neonicotinoids) which are taken up and into the plant and which would, therefore, travel up into the pollen, nectar and fruit of a plant?

In conclusion, please know that we are sympathetic to our authorities' trying to make heads-or-tails of the many and often conflicting reports on the safety of toxic products (like pesticides), as well as coping with the often-unrelenting pressure of lobbyists and industry representatives. We hope that the number of questions and concerns gathered and presented here serve to highlight the level of interest in the issue of toxic chemical use in Bermuda, given the threats to human and environmental health. We trust you will remain committed to serving these concerns through the establishment of an IPM program in Bermuda and to take pride in seeking solutions that reduce or eliminate exposure to these toxic products.

Becoming a "greener", more health conscious destination would also yield dividends to our visitors and therefore could be a benefit to our tourism product. First and foremost, however, as a country we must protect the health and well-being of our own population and environment. The BUZZ feels encouraged by the opportunity to be so engaged with such an important community issue and believe that the course you are charting here is unprecedented and extremely valuable... and for that we are grateful!

Sincerely

The BUZZ