



# Passing Over Our Forests

THE UNLAWFUL SPRAYING OF PESTICIDES ON OUR FORESTS

Compiled and written by:

[Wilderness Committee](#)

[Stop Spraying New Brunswick](#)

[Safe Food Matters Inc.](#)

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## INTRODUCTION

Canadian forests are sprayed with pesticides. This kills forest life and thereby ruins ecosystems and contributes to climate change and forest fires.

The use of pesticides on forests was approved by the Pest Management Regulatory Agency (PMRA) of Health Canada, on the basis that spraying occurs only once every 50 to 80 years and therefore the risk is low.

This report provides detailed evidence showing spraying has occurred as often as 7 times in 54 years, which means the basis for the approval of PMRA for forest spraying is unfounded and uncertain.

## THE APPROVAL

Glyphosate is the dominant pesticide used in forestry, according to the [Canadian Forest Service](#).

Glyphosate was registered for use in Canada in 1976. The most recent federal approval for using glyphosate on forests is PMRA's Re-evaluation Decision [RVD2017-01](#). The Proposed Re-evaluation Decision, [PRVD 2015-01](#) sets out the relevant environmental risk assessment for glyphosate, but does not specifically assess use on forests.

Instead, PMRA just concludes that the risk to forests is low, based on a false assumption - that glyphosate is used on forest sites only once every 50 to 80 years:

*Glyphosate products .....are used in forestry to prepare the site for reforestation which requires that the products be applied only once per silviculture cycle; typically **equating to once every 50 to 80 years**.  
(Response to comment 2.25 regarding glyphosate products RVD p.51)*

*[G]lyphosate is used for forest site preparation and plant release (conifers and deciduous trees) after trees are harvest [sic]. **This use is expected to occur once every 50-80 years. As such, glyphosate exposure to forest is extremely low.** (Response to comment 2.4 regarding aerial spraying in RVD p. 57)*

The Minister of Health reiterated the assumption as recently as June 2023, in the Government's [Response to Petition e-4127](#), a Parliamentary petition signed by over 18,000 people asking for a ban on glyphosate:

*A forest cultivation site would receive one or at most two treatments early on in a 50-to-80-year cultivation cycle.*

## EVIDENCE OF FREQUENT SPRAYING

### PMRA's own statements

PMRA has made statements that conflict with its own assumption. In the PRVD, it indicates that glyphosate is used not only for “site preparation” and “plant release”, but also later in the growth cycle for “stand thinning” (PRVD p.43). And PMRA's conditions of registration allow for two applications per year (based upon Syngenta's label **PCP#29308**) (PRVD p. 67) and indicate that “repeat applications” may be necessary (PRVD p.68 footnote 5).

### Provincial Data

More importantly, British Columbia (BC) and New Brunswick (NB) government data show that in the last 54 years, forest pesticides have been sprayed **up to 7 times** on the same Crown land cutblock. They are regularly sprayed **2 or 3 times**. So this evidence shows PMRA's assumption is wrong.

### British Columbia: 1970-June, 2024 (53 + years)

Number of Times the Same Cutblock Area has been Sprayed	Number of Cutblock Areas	Area of Cutblock Areas in Hectares
1	22,144	905,959
2*	5,727	102,792
3*	1,107	10,643
4*	157	368
5	18	21
6	1	0.1
7	1	0.04
Total	33,256	1,019,301

\*There is some minor double counting in certain areas, as the GIS analysis uses two datasets that partially overlap with some records with the same spray dates.

### New Brunswick: 1969-2023 (54 years)

Number of Times the Same Cutblock Area has been Sprayed	Number of Cutblock Areas	Area of Cutblock Areas in Hectares
1	8,815	420,371
2	7,543	115,636
3	1,928	13,782
4	387	1,674
5	40	99
6	3	3
7	1	0.02
Total	18,717	551,564

The sources for this data are the BC government Data Catalogue and NB government Natural Resources and Energy Development Forestry GIS Open Data webpage. Details on the methodology used to generate the data are set out in Appendix A. The data relate to Crown land only.

## **Maps of the Frequency of Pesticide Spraying of Cutblock Areas**

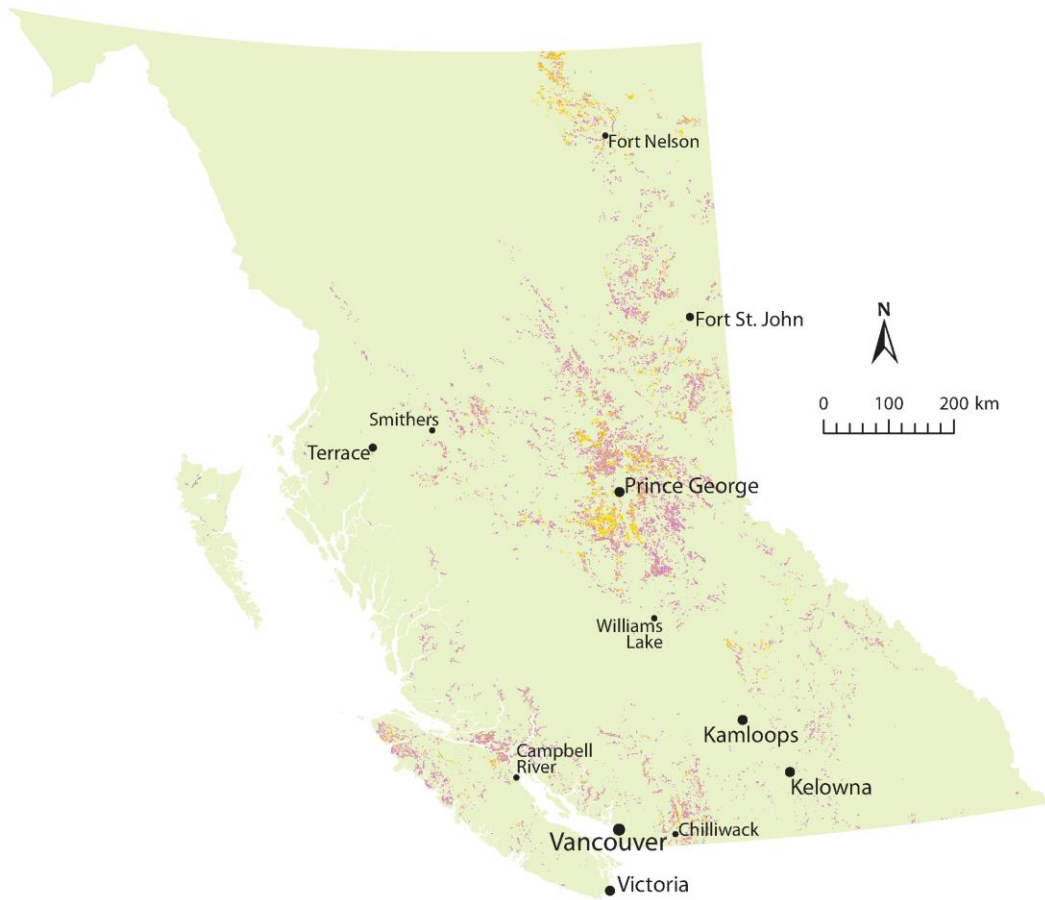
### **British Columbia**

A web map showing the frequency of pesticide spraying of cut block areas in BC can be found at this link:

<https://experience.arcgis.com/experience/ca8167d5c6dc47eob7734582469c82ae>

An overview map showing the frequency of pesticide spraying of cut block areas in BC on public Crown lands is found below:

# Chemical Herbicide Sprayed Cutblock Areas in BC and Frequency of Spray



Count of How Many Times the Same Area has been Herbicide Sprayed from 1970 to May 27, 2024

- 2
- 3
- 4
- 5
- 6
- 7

Herbicide Sprayed Cutblocks (from RESULTS Activity Treatment Units filtered by Chemical Air & Ground Brushing - downloaded May 27, 2024)

Herbicide Sprayed Cutblocks (from RESULTS Openings filtered by Chemical Air & Ground Brushing - downloaded May 27, 2024)

Mapping by: Wilderness Committee, June 2024;  
Based on Mapping Data from BC Government

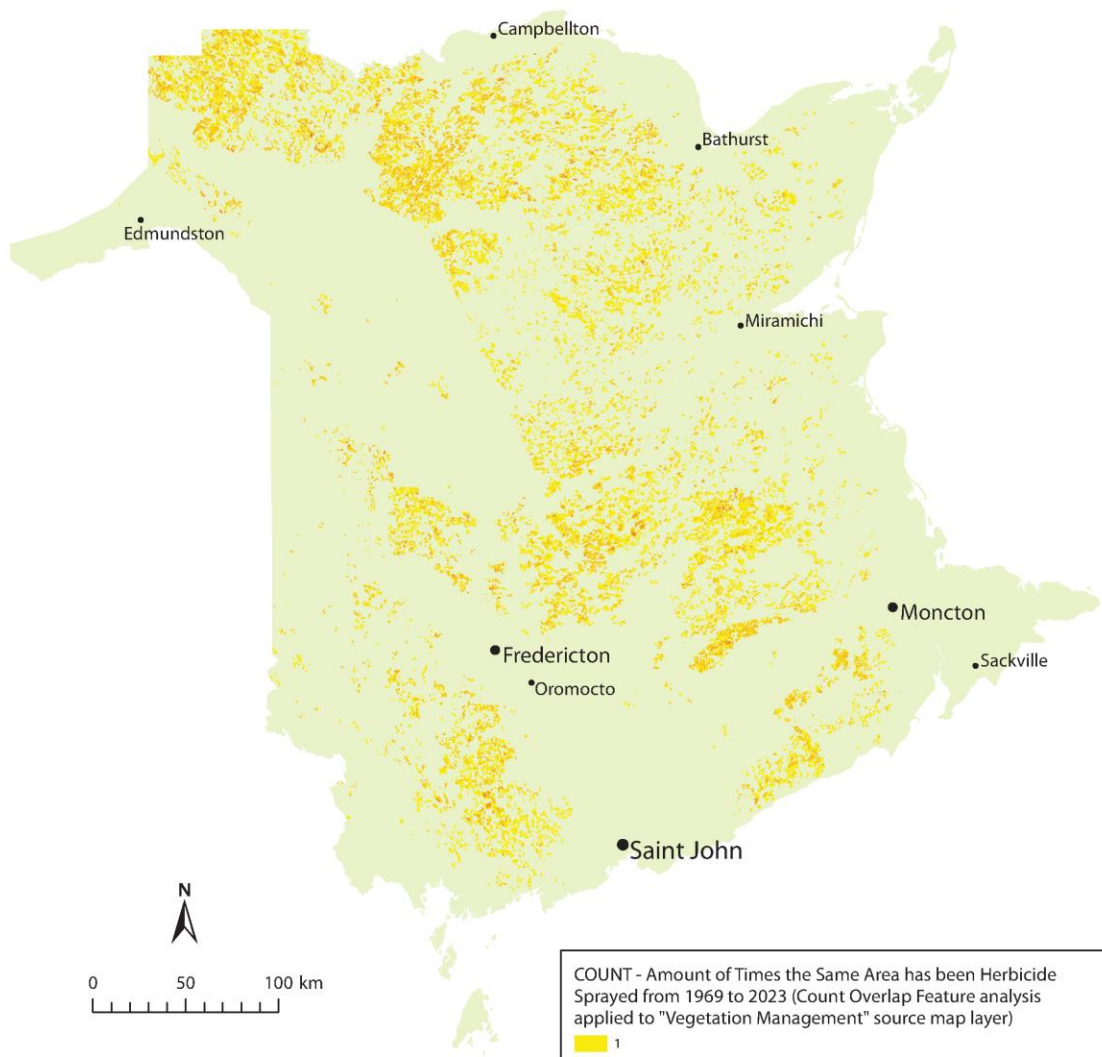
## New Brunswick

A web map showing the frequency of pesticide spraying of cut block areas in NB on public Crown lands can be found at this link:

<https://www.arcgis.com/apps/instant/basic/index.html?appid=cc1fbace8ecf4094b78228c48176coda>

An overview map showing the frequency of pesticide spraying of cut block areas in NB on public Crown lands is found below.

# Chemical Herbicide Sprayed Cutblock Areas in NB and Frequency of Spray



COUNT - Amount of Times the Same Area has been Herbicide Sprayed from 1969 to 2023 (Count Overlap Feature analysis applied to "Vegetation Management" source map layer)

1
2
3
4
5
6
7

Mapping by: Wilderness Committee, Sep 2024;  
Based on Mapping Data from NB Government

## NO FOREST ASSESSMENT BY PMRA, DESPITE CONCERNS

A risk assessment is supposed to look at toxicity and exposure. PMRA did not conduct a forest exposure assessment, meaning it did not assess the quantities of glyphosate to which forest species are exposed.

PMRA did, however, conduct an exposure assessment on certain species, and found that “levels of concern” were exceeded for many species (PRVD Appendix X, Tables X.18 onwards). It did not even look at the exposure of birds when sprayed with glyphosate.

## CONCLUSION

PMRA did not conduct a forest exposure assessment, and the species assessments it conducted showed concerns. PMRA nevertheless proceeded to approve forestry use of glyphosate based on the assumption that glyphosate is applied to forests only once every 50 to 80 years.

The evidence presented herein shows that pesticides are applied to forest cut blocks more frequently than once every 50 to 80 years. In NB and BC, applications occur more than two times on many cutblocks over a timeframe of 54 years.

The conclusion is that the approval of the forestry use of the main forest pesticide, glyphosate, is based on an incorrect assumption that is contrary to the evidence.

## REQUIREMENT AND REQUEST

Under the [Pest Control Products Act](#), the ongoing federal registration for glyphosate use on forest **requires that the Minister of Health/ PMRA have a reasonable certainty that no harm to the environment** arises from forestry use, based on the hazard level and the exposure level arising from the use.

Because there is no such certainty, the Minister of Health cannot lawfully permit the registration of glyphosate for forestry use to stand. **We call on Minister to rescind the approval.**

## FOR MORE INFORMATION, PLEASE CONTACT:

<a href="#">Wilderness Committee :</a>	Lucero González, Conservation and Policy Campaigner	lucero@wildernesscommittee.org	604-683-8220
<a href="#">Stop Spraying New Brunswick:</a>	Dr. Caroline Lubbe-D'Arcy Chair	stopsprayinginnewbrunswick@gmail.com	506 292-7503
<a href="#">Safe Food Matters Inc.:</a>	Mary Lou McDonald, LL.B. President	safefoodmatters@gmail.com	905 467-8531



## Appendix A: Methodology for GIS Analysis of the Frequency of Herbicide Spraying of Cutblock Areas

### BC

The source GIS mapping data used to run the analysis for BC was downloaded on May 27, 2024 from the BC government Data Catalogue. Two geodatabase map layers from the Forest Science, Planning and Practices Branch RESULTS database were downloaded: “RESULTS – Openings svw”

<https://catalogue.data.gov.bc.ca/dataset/results-openings-svw>

and

“RESULTS - Activity Treatment Units”

<https://catalogue.data.gov.bc.ca/dataset/results-activity-treatment-units>

For both layers click on the link called “Access/Download” under the “Data and Resources” heading and “BC Geographic Warehouse Custom Download” subheading on the right side. These two map layers contain information of cut blocks that have been sprayed with chemical herbicide on public ‘crown’ lands in BC from June 1, 1970 to May 27, 2024.

To isolate which cutblock features have been sprayed by chemical herbicides from these two map layers, first a selection query was performed in ArcGIS Pro. For “Openings” map layer, an SQL query of “BRUSHING\_TECHNIQUE\_CODE IN ('CA', 'CG')” was done (selecting those cutblocks with a ‘brushing technique code’ of ‘CA’ [meaning ‘Chemical Air’ – sprayed from the air] or ‘CG’ [meaning ‘Chemical Ground’ – sprayed from the ground] ). For “Activity Treatment Units” map layer, an SQL query of “SILV\_BASE\_CODE = 'BR' And SILV\_TECHNIQUE\_CODE IN ('CA', 'CG')” was done, selecting those cutblocks with a silviculture base code of ‘BR’ [Brushing] and silviculture technique code of ‘CA’ [Chemical Air] or ‘CG’ [Chemical Ground]. The selected records for these two map layers were exported as two new map layers using the “export features” tool in ArcGIS Pro.

Then to isolate the areas that have been sprayed more than once (cutblock areas that overlap one or more times), a GIS analysis was performed in ArcGIS Pro using the "Count Overlapping Features" tool, similarly to what I did for the NB data, except that the tool ran on both map layers as input which identified cutblock areas that not only overlap within each of the map layers, but between the two map layers. This tool creates a new map layer with cutblock areas and the count of how many times each individual cutblock area overlaps with another cutblock area (again both within each of the input source map layers and between the two input map source layers). Then, similarly to the NB analysis, a new field was added in the attribute table of the new count overlap map layer called “Area\_ha” and a subsequent “Calculate Geometry” tool was run for the new field to calculate in hectares the individual cutblock areas. Any cutblock areas that were less than 0.005 ha were subsequently deleted, as they are very small and to discount any mapping errors of the original data layer.

Finally, a selection query was run to isolate the count of the number of cutblock areas and the areas they cover in hectares to produce the results table above.

## NB

The source Geographic Information System (GIS) mapping data used to run the analysis in the ArcGIS Pro desktop program for NB was downloaded on May 6, 2024 from the New Brunswick government Natural Resources and Energy Development - Forestry GIS Open Data webpage:

<https://www2.gnb.ca/content/gnb/en/departments/erd/open-data/forestry.html>

and then clicking on the link near bottom of page called "vegetation management" (under the "Download" subheading), which leads to here:

[https://hub.arcgis.com/datasets/2d4eb472eeb44753b06a918916717688\\_o/about?locale=en](https://hub.arcgis.com/datasets/2d4eb472eeb44753b06a918916717688_o/about?locale=en)

The map layer was downloaded as an updated shapefile (click on the "download" button and again on the subsequent "download" button under "shapefile" on the left side pane that appears). This map layer shows cut blocks that have been sprayed with chemical herbicide on public 'crown' lands in NB from 1969 to 2023.

Then to isolate the areas that have been sprayed more than once or said another way – sprayed cutblock areas that overlap one or more times - a GIS analysis was performed in ArcGIS Pro using the "Count Overlapping Features" tool. This geoprocessing tool isolates areas of overlap between individual cutblock features. This tool creates a new map layer with cutblock areas and the count of how many times each individual cutblock area overlaps with another cutblock area. Then subsequently an "Intersect" overlay tool was run to merge back the "count overlap features" new map layer back to the original "vegetation management" layer. Then a new field in the attribute table was added in the attribute table of the new map layer called "Area\_ha" and a subsequent "Calculate Geometry" tool was run for the new field to calculate in hectares the individual cutblock areas. Any cutblock areas that were less than 0.005 ha were subsequently deleted, as they are very small and to discount any mapping errors of the original data layer.

Finally, a selection query was run to isolate the count of the number of cutblock areas and the areas they cover in hectares to produce the results table above.