

Current Impacts of Glyphosate Use in New Brunswick

Purpose

This document provides an overview of the ecological, social, and economic implications of glyphosate use in New Brunswick forests and outlines recommended actions to address these concerns.

Issue Summary

The widespread use of glyphosate in New Brunswick forests to manage vegetation growth has raised concerns about its environmental and health impacts, as well as its alignment with sustainable forest management practices. This issue has significant implications for biodiversity, public trust, and the forestry sector.

Background and Challenges

Extent of Glyphosate Use

Glyphosate, a widely used herbicide, is applied annually by forest management companies across thousands of kilometres of New Brunswick forests. The province has the highest glyphosate use rate (National Observer, 2022) in forestry per land mass in Canada.

Glyphosate is primarily used to suppress hardwood vegetation to enhance softwood growth in conifer-dominated plantations. Despite increasing opposition from New Brunswickers and numerous petitions advocating for a ban, glyphosate use continues to increase (Conservation Council of New Brunswick 2022).

Environmental Impacts

- Glyphosate is likely undermining the health, resiliency, and biodiversity of New Brunswick's Wabanaki (Acadian) forest watersheds.

- Herbicide spraying reduces biodiversity by eliminating deciduous trees and shrubs (Betts, *et al.* 2024), leaving forests more vulnerable to insect infestations, drought, and wildfires (Community Forests International, 2018; CBC, 2019).
- Modelling from the University of New Brunswick suggests that coniferous forests, which are promoted through glyphosate use, are particularly susceptible to climate change impacts, amplifying the risks associated with this practice (Albert *et al.*, 2019).

Health Impacts

- Numerous studies link glyphosate exposure to cancer, hormonal disruption (Munoz *et al.* 2020), and neurological diseases such as Parkinson's (Bloem and Boonstra 2023) and Alzheimer's (Arizona State University 2024).
- Research has shown that even low-level glyphosate exposure can negatively affect gut health (Lehman *et al.*, 2023) in animals, potentially leading to broader health issues (Manandhar *et al.*, 2024).
- Widespread public exposure is evident in Canada (Health Canada, 2023) and the United States (The Guardian, 2022). A recent study found that nearly 75% of pregnant Canadian women sampled had detectable levels of glyphosate (Ashley-Martin *et al.* 2023).
- Bayer, formerly Monsanto, has faced numerous lawsuits over glyphosate's links to cancer, resulting in multibillion-dollar settlements (e.g., CNN 2024). In December 2023, a Canadian class-action lawsuit was launched against Bayer (Koski Minsky LPP, 2023).

Economic Concerns

- Taxpayers fund a significant portion of the forestry industry's silviculture programs, including herbicide spraying, costing New Brunswick approximately \$29 million annually, according to the Auditor General's 2015 report.
- Alternatives to glyphosate are viable and have been implemented successfully elsewhere. For example:
 - Quebec ceased using herbicides in forestry over 20 years ago.
 - West Fraser, one of Canada's largest forestry companies, announced it would discontinue herbicide use in British Columbia and is exploring alternatives in other regions (Quesnel Cariboo Observer, 2024).

Indigenous Concerns and Environmental Justice

- Indigenous communities in New Brunswick describe glyphosate spraying as harmful to their lands and livelihoods, with some referring to it as "akin to eco-genocide" (National Observer, 2022).
- The Canadian Human Rights Commission defines environmental racism as systemic policies that disproportionately expose Indigenous, Black, and other racialized communities to environmental hazards. Glyphosate spraying fits this definition by adversely affecting Indigenous peoples' health and rights to cultural and ecological stewardship.

Recommendations

1. **Moratorium on Glyphosate Use**

- Implement a one-year moratorium on glyphosate spraying in New Brunswick forests while comprehensive research is conducted into its environmental, health, and economic impacts.

2. **Phased Reduction and Transition Plan**

- Rapidly phase out glyphosate use in forestry, establishing clear timelines and benchmarks for adopting sustainable and ecologically friendly alternatives.

3. **Collaboration with Indigenous Communities**

- Co-design forest management practices with Indigenous governments and communities, incorporating traditional ecological knowledge and prioritizing biodiversity.
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Significance and Impact

Environmental Impact

- Glyphosate use disrupts biodiversity, harms aquatic ecosystems, and leaves forests vulnerable to ecological stressors such as pests and wildfires.
- Herbicide residues can persist in soil and water, further impacting non-target species and overall ecological balance.

Public Concern

- There is widespread opposition to glyphosate use from Indigenous groups, conservation organizations, and the broader community.
- Public opinion surveys indicate significant concern among New Brunswickers regarding glyphosate's health and environmental risks.

Economic Alternatives

- Transitioning to manual or mechanical vegetation management could create employment opportunities and align with sustainable forestry practices.
 - While initial costs may be higher, these methods offer long-term benefits for the environment and economy, positioning New Brunswick as a leader in sustainable forestry.
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Analysis

Impact on Stakeholders and Rightsholders

1. Communities

- Public health concerns about glyphosate exposure have led to growing opposition and advocacy for safer alternatives.

2. Forestry Sector

- Transitioning to alternative vegetation management methods may require initial investments in training and equipment but would enhance public trust and align with evolving market expectations for sustainability.

3. Indigenous Groups

- Glyphosate use conflicts with Indigenous land stewardship principles and traditional ecological knowledge. Transitioning to sustainable practices respects Indigenous rights and fosters stronger partnerships.

Risks and Opportunities

- **Risks:** Resistance from forestry companies reliant on glyphosate for cost-effective vegetation management, alongside potential short-term increases in operational costs.
- **Opportunities:** Long-term benefits include healthier forests, improved public health, job creation, and enhanced economic resilience through sustainable practices.

Current Status:

Despite mounting evidence of ecological and health risks, the Government of New Brunswick has yet to address these concerns. Other jurisdictions' restrictions on glyphosate use provide valuable lessons and precedents for New Brunswick to consider.

In November 2024, Minister of Environment and Climate Change Gilles LePage was mandated by Premier Susan Holt to "implement the recommendations of the Legislative Assembly's all-party Standing Committee on Climate Change and Environmental Stewardship to increase restrictions on pesticide and herbicide use, including examining the banning of aerial spraying" and to "investigate alternatives to pesticide and herbicide use and re-evaluate the safety of glyphosate with new and comprehensive data specific to New Brunswick." Several other ministers were mandated to support these efforts. LePage, in 2016, also presented a petition signed by thousands who wanted to stop glyphosate spraying to the Legislative Assembly. Education Minister Claire Johnson and MLA Alexandre Doucet have both signed a petition to take action to stop spraying herbicides on public lands and on N.B. Power rights-of-way.

Key Contacts

Beverly Gingras, Executive Director, Conservation Council of New Brunswick |
beverly.gingras@conservationcouncil.ca| 506.458.8747