



January 24, 2011

Bruce Fraser
Forest Practices Board
PO Box 9905 Stn Prov Govt
Victoria BC V8W 9R1

Dear Bruce Fraser:

Re: Report on - Complaint File 090901/Glyphosate Herbicide Impacts

In response to the closing comments of your letter of October 15, 2009, I met with Ottawa representatives of federal Pest Management Regulatory Agency September 28, 29 and 30, 2010. At that time I reinforced British Columbia's interest in the review of glyphosate products formulated with POEA (polyethoxylated tallow amine) specifically as it relates to impacts to amphibians. The work plan for the federal re-evaluation of glyphosate is targeted for completion in 2014.

Analysis of protection of sensitive features as outlined in the Integrated Pest Management Regulation has been the primary compliance focus for the Central and Northern regions since 2007. Field audits for compliance with provincial pesticide-free zones around sensitive areas, including classified wetlands, continued in 2010 in the Peace, Omineca and Skeena regions. Results of those audits are not yet complete. The majority of inspections completed in 2009 found that required pesticide-free zones are being maintained.

I have released Technical Guidance related to glyphosate use near amphibian habitat this month and have sent the document to all confirmation holders and licensees that work in the forest sector. This document will inform proponents of the issue, potential consequences of their decisions and provide links to additional relevant information. It will also be available on our ministry website. I have attached a copy for your reference.

Sincerely,

Daphne Dolhaine
Manager, Integrated Pest Management Program
Attachment

POTENTIAL IMPACT OF GLYPHOSATE HERBICIDES ON AMPHIBIANS

Issue

Potential impacts on amphibians from the use of polyethoxylated tallow amine (POEA)-containing glyphosate herbicides when sprayed over small wetlands and bodies of temporary free-standing water.

Who this concerns

- Pest management professionals developing pest management plans and applying glyphosate herbicide for forestry uses
- Resource management professionals responsible for habitat and wildlife management in areas where glyphosate herbicides are used.

Issue Description

Recent scientific publications have demonstrated lethal and sub-lethal impacts of POEA-containing glyphosate herbicides on amphibians, in concentration that could result from the direct over-spraying of wetlands. These impacts arise primarily from the surfactant, POEA, used in current glyphosate herbicide formulations. The impact of the surfactant is generally presumed to be through disruption of membranes, but exact causal mechanisms are not currently known.

Current forestry practises permit the over-water spraying of glyphosate herbicides on wetlands that are smaller than 25 m² or a body of temporary free standing water if not classified as a wetland. This over-spraying could result in concentrations of glyphosate herbicides and their associated surfactants in concentrations that may be of concern to amphibian health.

Recommended Actions

Given this recent information, pesticide application professionals should make themselves aware of the potential risk to amphibians, as well as to the abundance and species of amphibians on treatment blocks with wetlands smaller than 25 m² or bodies of temporary free-standing water. This information should be factored into their management decisions to reach objectives while avoiding unreasonable adverse effect to amphibians that may be present.

These wetlands should be surveyed to determine amphibian usage. If amphibian usage is detected in these bodies of water, proponents should consider either delaying the timing of the application until the amphibians have metamorphosed and left the water bodies and/or, where possible, establish buffers around these water bodies to prevent over-spraying and drift into the surface water. If species at risk amphibians are present, ensure that all precautions are used to prevent any harm to them.

Further Information from the Ministry of Environment

Literature review of impacts of glyphosate herbicide on amphibians: What risks can the silviculture use of this herbicide pose for amphibians in B.C.?

<http://www.llbc.leg.bc.ca/public/PubDocs/bcdocs/442206/finishDownloadDocument.pdf>

Species and Ecosystems at Risk webpage

<http://www.env.gov.bc.ca/wld/serisk.htm>

B.C. Frogwatch Program

<http://www.env.gov.bc.ca/wld/frogwatch/>

The Conservation Framework

<http://www.env.gov.bc.ca/conservationframework/>