

FACT SHEET

WHY ARE FOREST RENEWAL AND VEGETATION MANAGEMENT IMPORTANT?

Canada

- More than 200,000 people are directly employed in our forest industry.
- Forest renewal and vegetation management are critical to the forest management lifecycle.
- Given the importance of our forests, scientists, researchers, government and industry work together to maintain a balance between protecting, harvesting and renewing our forests for generations to come.

New Brunswick

- The trade of lumber and wood products remains one of New Brunswick's largest economic sectors. New Brunswick is a national leader in responsible forest renewal and management.
- The forestry sector employs more than 22,000 people (direct and indirect). This has led to an annual trade balance of over \$1 billion, driving the New Brunswick natural resource economy.
- By maintaining a responsible balance of renewal, harvest and regeneration, the goal is to keep New Brunswick's forests healthy and productive for generations to come.

WHAT IS VEGETATION MANAGEMENT?

- Vegetation management is one component of the overall cycle of forest management. It refers to the methods used by foresters to ensure that specific crop trees are given the best possible conditions to grow quickly and sustainably – much the way that weeding ensures success in the home garden.
- Herbicides are proven as the most efficient and effective vegetation management tools. They produce the desired results at the lowest cost, with the smallest environmental footprint, allowing forest managers to responsibly and sustainably balance our forest resources.
- Forest managers consider and use a range of different tools, depending on the situation at hand – they call this “integrated vegetation management”.
- Across Canada, approximately 45% of all harvested areas are left to regenerate naturally, without using herbicides. Many of these sites are intended to grow hardwood species (e.g., aspen, birch, maple), which readily regenerate by natural means.
- It is usually necessary to assist conifer establishment and growth through direct seeding, planting, weed control, and continued tending.
- Extensive research has been conducted by academics, industry, and government researchers on all aspects of herbicide use in our forests. To be considered safe for use, this research is reviewed regularly by Health Canada's Pest Management Regulatory Agency (PMRA), under the authority of the Pest Control Products Act.

WHAT ABOUT HERBICIDE OPERATIONS?

- Herbicides, are applied to areas of the forest using specialized aircraft or forestry tractors. This is done either before new seedlings are planted, or 2-5 years after new seedlings become established. Areas of the forest are only ever sprayed once or twice in a 40 to 80 year growth cycle.
- In 2014, 116,000 ha of publicly owned Canadian forest lands were treated with glyphosate-based herbicides. This amounts to less than 0.05% of the total productive forest lands in Canada.
- In addition to digital maps, pilots and applicators use GPS technology to ensure that they are spraying the areas approved by the regulatory bodies.
- Federal and Provincial regulatory agencies impose specific weather parameters for application, in addition to pesticide free zones (PFZ), buffer zones (BZ) and application monitoring programs to minimize the risk of off-target deposit.
- In New Brunswick, the Department of Environment and Local Government (DELG) enforces a number of operational conditions for herbicide use beyond the label instructions. These measures add increased safety for human health and wildlife living near the treatment sites.

These additional measures include:

- The use of detailed GIS technology to plot the treatment sites
- Buffer zones around private land and water courses (marshlands, rivers, ponds, etc.)
- Certification and training for applicators
- Mandatory public notifications
- A map of proposed Crown land herbicide blocks
- Notices in major New Brunswick newspapers
- Signs outlining treatment details and timelines posted at access points to all blocks that will be treated

WHAT ABOUT HEALTH PRECAUTIONS?

- When handled correctly, according to all safety precautions, there is no concern for the health of individuals working directly with herbicides or glyphosate.
- Deliberate consumption of glyphosate contradicts safety precautions. In the same way one would not intentionally consume household cleansers, one would never consume glyphosate.
- The Pest Management Regulatory Agency (PMRA), a branch of Health Canada, has the legal authority to review, register and regulate pesticide products in Canada. They use scientific evaluation to assess every pesticide for potential risks to human health and the environment.
- Many organizations including Canada's Pest Management Regulatory Agency (PMRA), the United States EPA, and the European Food Safety Authority have concluded that glyphosate does not pose a cancer risk when used according to regulations and label directions.
- Glyphosate does not accumulate in muscle tissues of animals. Therefore, the Pest Management Regulatory Agency (PMRA) is not concerned about human consumption of wild game that has lived in treatment areas.
- The PMRA has determined that there is no risk to human health associated with eating berries sprayed with glyphosate. However, as a precaution, it is recommended not to eat the berries in areas that have been recently treated.

WHAT ABOUT THE ENVIRONMENT?

- Several studies show that glyphosate is retained and rapidly degraded in the top 15 cm of soils. This makes it unlikely to move to surface or ground water.
- Herbicide treatments are used to promote the growth of certain conifer species, however, the goal is to keep the forest healthy. Though herbicide treatments help favour conifers, they do not create monocultures and do not limit biodiversity in our forests.
- Because glyphosate is bound and degraded so rapidly in the top layer of soil, raspberry bushes and other vegetation are able to grow back within a few years of treatment.
- Studies show that it takes only a few days to a few weeks for 50% of the glyphosate to dissipate and, within a year, only small biologically unavailable traces of glyphosate remain.
- Several published scientific reviews and risk analyses conclude that the use of glyphosate-based herbicides poses a minimal risk to soil microorganisms, earthworms and invertebrates.
- Regulatory bodies require buffer zones to be created around streams, lakes, rivers and ponds near aerial treatment sites to mitigate the risk of herbicides coming in contact with aquatic organisms.

WHAT ABOUT WILDLIFE?

- Glyphosate has not shown toxic effects on deer or moose.
- Moose populations tend to move away from treated areas because their favourite food source, woody browse, isn't available. However, they do move back into treated areas once their food supply has regenerated.
- Deer populations remain largely unaffected by vegetation management, continuing to live in treated areas throughout the lifecycle of the managed forest.
- However, deer are well adapted to seek and feed on the most nutritious food sources possible. Deer will gravitate toward areas where the most nutritious and easily accessible foods are available – such as the grasses, shrubs, trees, and other vegetation readily available in agricultural or suburban areas.
- Agricultural studies show that glyphosate is not toxic to honeybees or other "beneficial insects". Studies show that the use of glyphosate products in accordance with product labels, does not pose a significant direct toxicological risk to small mammals or birds.

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For more information on forest renewal and vegetation management please visit our website, www.ForestInfo.ca; email us at info@ForestInfo.ca; or call us at 1-888-779-9243.