

Agribrief

an NWT Agrifood Association Issue Report



What is the impact of fire retardant on agricultural and food growing areas?

The growth of certain types of plants may be inhibited until the fire retardant washes away, but research has indicated that fire retardant has only minor effects on the environment.

That said, every effort is made by NWT Fire to avoid the fire retardants being dropped into water bodies and on known food growing areas.

Harvesting plant-based foods directly impacted by retardant is not recommended immediately following fire suppression. Harvesters should not harvest plants or plant products until the following season to allow for the natural break down of the retardant. Following rains and over winter the retardant will naturally break down resulting in little to no negative effect on subsequent year's food production.

There may be short term impacts to the harvesting of wild plants and on fish habitat however these resolve naturally over time. The next year's crop of any perennial food plants should be safe to harvest and consume.

HOW TO SAFELY HARVEST AFTER THE USE OF FIRE RETARDANT:

- Dispose of produce and drinking water that has been contaminated by fire retardant.
- Do not harvest foods for consumption or sale (i.e., berries, mushrooms, herbs or garden produce) that have been contaminated.
- Thoroughly rinse and clean any cisterns or potable water sources to remove fire retardants (it is important to remove precipitants on tank bottoms too).
- Thoroughly rinse and clean surfaces that drain into potable water sources.
- Fire retardants are water-soluble and able to be washed off with little effort prior to drying. A mild soap/surfactant-containing product can assist in removal.



Policy and
Regulatory



Resources and
Technology



Labour and
Workforce



Economics



Sustainability and
Environment



Innovation

Agribrief

Vol 1 Iss 1



What is forest fire retardant?

Forest fire retardant is used across the NWT to reduce the spread of forest fires.

An indicator that it has been used is the red colour it leaves behind (though this breaks down when exposed to sunlight).

The mixture of fire retardant used in the NWT results in each drop consisting of 82% or higher of water. The product primarily consists of ammonium polyphosphates, which are also used in many agricultural fertilizers and are considered environmentally friendly and safe for use.

Compounds in long term retardant use natural components like plant-based oils, guar gum and soils, and natural dyes for colour.

Some of these same components are present in foods such as ice cream, candy and other processed foods. It has been shown to not pose any significant risk to human health.

How does fire retardant work?

The active ingredient in long-term fire retardant, for wetting and fire suppression is a salt that helps to draw moisture from the air and trees to maintain moisture. This kind of fire retardant is similar to a natural fertilizer that stimulates regrowth following the fire.

The NWT also uses one type of short-term fire-retardant. This significantly reduces water's surface tension and, when mixed with air, creates a foam that surrounds environmental fuels with a thick blanket. This creates a barrier between the fuel and the fire, knocking down or suppressing the fire faster than water alone, and allowing fire fighters to see the areas of application.

Sources: Canadian CIFFC Quality Products List, Long term fire retardant product LC95AMV info sheet (SDS), US Forest Service specification 5100-304C, Class A short term fire retardant WD881C (C=cold water) specification sheet, https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3851595.pdf and interviews with Wildfire Operations – Forest Management Division of Environment and Climate Change, GNWT.



Policy and
Regulatory



Resources and
Technology



Labour and
Workforce



Economics



Sustainability and
Environment



Innovation

TERRITORIAL
Agrifood
ASSOCIATION