

Pesticide Use in the Yukon

Public concern regarding control and regulation of potentially harmful chemicals has increased over the past several decades. Pesticides are a special group of harmful chemicals. Only small amounts of pesticides are used in the Yukon, due to our cold climate and limited agriculture. The largest single use of pesticides is for the control of mosquitoes and biting flies.

Pesticides are designed to be lethal. The active ingredients in pesticides are often effective in very small amounts. For example, a common rodenticide, bromodiolone, is sold in formulations of 0.005% active ingredient. Because pesticides possess the unique feature of being toxic in small quantities, they require special regulation and close monitoring.

Early Use

Early pesticide use was largely for mosquito control. DDT was introduced in 1948 on an experimental basis and used regularly from 1950 to 1970. Baytex, Abate 4E, and Cythion were introduced between 1966 and 1970. Pesticides currently used for mosquito control are Vectobac 200G (*Bacillus thuringiensis israelensis*), Abate 4E, Cythion 95ULV, and Prox 120. Various herbicides have been used from the 1950s to the present for vegetation control along roads and at utility and repeater sites.

The Law

Pesticides were first regulated in 1927 under the *Agricultural Pests' Control Act*, which was amended and renamed the *Pest Control Products Act* (PCPA) in 1939. The most recent substantive amendments to the PCPA were made in 1985. In July 1994, Yukon's *Pesticides Regulations* were passed under the *Environment Act*.

Pesticide Types

Over 85 chemicals are present as active ingredients in various formulations of pesticides currently available in the Yukon. The formulations, including similar products registered by different manufacturers, number over 300. Most are registered as domestic products. Based on a 1986 study, house and garden bug killers and mosquito coils are the most commonly sold products, while creosote, 2,4-D, and Vectobac are used in the largest quantities.

Insecticides, including formulations designed to kill spiders, lice, ticks and other arthropods, are the most varied in formulation and account for 35 of the chemicals surveyed. The largest single volume usage of any pesticide on which information is available is the mosquito control program run by both municipal and territorial governments. A biological control agent (*Bacillus thuringiensis*) under the trade name Vectobac 200G, targeting the larval stage, is the pesticide of choice. Adult mosquitoes are controlled with Cythion 95 ULV, a malathion formulation.

Other major insecticides include diazinon, chlorpyrifos, borax, allethrin, and pyrethrins.

These insecticides target common household pests such as ants, roaches, silverfish, flies and wasps, and garden pests such as cutworms and aphids.

Rodenticide formulations often contain an extremely small amount of a powerful active ingredient so that by volume of active ingredient, it appears that few rodenticides are used. However, much of the business of local exterminators consists of eliminating mice, especially from businesses carrying food products. The most common rodenticides are bromodiolone, chlorophacinone, and warfarin.

By weight of active ingredient, herbicides, primarily Round-up (glyphosate) and Killex (2,4-D, mecoprop, dicamba), represent a significant use of pesticides in the territory, second only to the mosquito control program. Major users of herbicides include landscapers, government, and utilities. Wood preservatives also constitute a sizeable proportion of the chemicals surveyed. The major wood preservatives are creosote, zinc naphthenate, and copper naphthenate. These are sold as ready to use, paint-on formulations.

The major repellants used to discourage pets from getting into garbage or gardens are methyl nonyl ketone, ammonium saccharides, ammonium soaps, and naphthalene. Some formulations are designed to repel flying insects from human skin. Naphthalene is used to discourage bears from disturbing cached gear.

Very few fungicides or molluscicides are sold in the Yukon.

Other Topics

Fact Sheets are also available on the following topics:

- Pesticides Regulations
- Pesticide Vendor Permits
- Pesticide Service Permits
- Pesticide Use Permits
- Pesticide Applicator Certificates
- Adult Mosquito Control
- Rodent Problems

For more information on Pesticides or the Pesticides Regulations, please contact:

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Copies of Yukon regulations may be viewed online at <http://www.environmentyukon.gov.yk.ca/epa/enactreg.shtml> or at any Yukon Public Library, territorial agent, territorial representative or regional services office. You may purchase copies at the Inquiry Centre, Yukon Government Administration Building, 2071-2nd Avenue in Whitehorse, or by mail from the Subscriptions Clerk, Yukon Government Queen's Printer, Box 2703, Whitehorse, Yukon, Y1A 2C6 (phone (867) 667-5783 or toll free 1-800-661-0408 extension 5783).

