



URGENT!! Did you know that aerial bacterial insecticide (Btk) spraying is planned starting in April?

Health Canada incident reports show harms to people from Btk spray.

LOCAL SPRAY PLANNED

The Ministry of Forests plans to conduct multiple aerial sprays of 52 ha (plus a 165 ha buffer zone) in the city of West Kelowna, with an insecticide called Foray 48B with 12.65% bacteria *Bacillus thuringiensis subsp. kurstaki strain ABTS-351* (Btk) and 87.35% corporate protected ingredients. This is planned due to a perceived moth infestation concern after reporting the capture of only 11 spongy (gypsy) moths in 2023 in West Kelowna by the Canadian Food Inspection Agency (see Fig. 1). Three spray dates are planned to occur between April 1st to June 30th, 2024. Actual dates depend on weather with very little notice. Aerial spraying occurs at a maximum of 150 feet above ground between sunrise to 7:30 a.m. and 7-10 days apart. Historic air application costs are shown to be between \$170K to \$320K in a single spring spray program in each of the planned BC communities.

HUMAN HEALTH CONCERNS

Foray 48B has been documented to cause significant respiratory, vision, cardiac, neurological, gastrointestinal and skin reactions in Health Canada incident reports, as well as social media. At an open house event with the *BC Spongy Moth Technical Advisory Committee*, and the Ministry of Forests, they acknowledged that people have reported sickness and adverse reactions after spraying. There is no clear injury reporting system, thus only a fraction of symptoms is accurately reported and documented.

Notably, as quoted in the US Department of Agriculture (USDA), "Pre-treatment with an influenza virus substantially increased mortality in mice exposed to various doses of Btk. This effect raises concern about the susceptibility of individuals who have influenza or other viral respiratory infections to severe adverse responses to Btk exposure". (USDA pg.23 - xiii)

Foray 48B has been <u>banned</u> due to health risks in Norway and Denmark. Also, France's food safety agency (ANSES) has identified Btk as the second leading cause of food borne illness. Most European countries do not allow aerial spray.

Quote from Pubmed: "The present study strongly indicates that residues of B. thuringiensis-based insecticides can be found on fresh fruits and vegetables and that these are **potentially enterotoxigenic**". *Enterotoxic means a toxin produced by bacteria that is specific for intestinal cells; causes vomiting and diarrhea associated with food poisoning.

OTHER EVIRONMENTAL IMPACTS

Spongy moth only affects deciduous leaves from specific trees which are <u>already stressed, diseased and dying</u>. Healthy, hardy trees can withstand an attack and even endure a gypsy moth infestation, so the best prevention is taking appropriate care of your trees (with water and pruning). There is no value to massive spray zones which have been proven harmful to the environment and various species.

Foray 48B impacts non-target species of moths (promethea, cinnabar), butterflies (endangered monarch, swallowtail), earthworms, bees, birds (spotted towhee), and water species. Affected targeted, as well as non-targeted, insects are all important food sources for many land and water organisms within an ecosystem. Once a system, or portion of its contents is off balance, it creates massive negative ripple effects. At the application rates used to control gypsy moth populations, mortality rates among the sensitive terrestrial insects are likely to range from approximately 80% to 94% or more (USDA pg. 20-x).

The Foray 48B Material Safety Data Sheet MSDS (see Table 1) includes an environmental precaution to "keep out of drains, sewers, ditches, and waterways." West Kelowna's application zone includes McDougall Creek and School zones. Aerial spraying has been recorded to have a drift fallout anywhere from 3km and further from the spray zone, and affects all environments in that path.

Homes, schools, gardens, parks, orchards, farms, businesses, wineries, McDougall Creek, streets and highways are situated within spray zones, affecting humans, pets, wildlife, birds, bees, water life and non-target insects.

FORAY 48B (Btk) Bacillus thuringiensis subsp. kurstaki - live bacteria - strain ABTS-351 *other strains can and have been used

Original Bt bacteria was isolated from diseased silk worms and it is linked to food borne illnesses. It is "natural", but yet, can be harmful.

Btk ('k' added) is based on Bt bacteria, but Btk is a commercial formulation bacteria that is genetically modified (GMO) and it is NOT naturally found in the environment nor in soil. (USDA pq.20 - x).

Foray 48B composition information states 12.65 % Btk and 87.35 % "Other" ingredients, meaning we are not allowed to know what specific compounds we are being exposed to, yet we are assured it is "safe". Foray 48B coats and hardens on gardens, food, plants, schools, parks, playground equipment, trampolines, cars, pools, and all outdoor surfaces, with each application. *Strain can change, as the Health Canada product registration number 24977 states "ALL STRAINS". The current strain used in 2024 is ABTS-351.

Table 1 Btk Moth Spray Ingredients (MSDS)		MSDS) 3. COMPOSITION/INFORMATION ON INGREDIENTS	
	CAS#	Component Name	Percent
	None	Bacillus thuringiensis subsp. kurstaki Strain ABTS-351 fermentation solids	12.65
<	Trade Secret	Other ingredients	87.35

Solutions – If spongy moths are a problem, there are other options...

Aerial spraying is only one treatment option. Less harmful options include: keeping trees healthy, traps, manual egg removal, mass trapping, mating disruption, insect eating birds, trunk wrap, direct spray on just affected trees, or tree host removal.

Actions - What You Can Do...

Salt Spring Island and Kitsilano said NO to aerial spraying and won. Act now! Send Emails, Join an Info Session, Sign Petition, and Share this:

- 1. Ministry of Forests, Tim Ebata: flnrgypsymothinfo@gov.bc.ca
- 2. West Kelowna MLA: Ben.Stewart.MLA@leg.bc.ca
- 3. West Kelowna City Mayor Gord Milsom: mayorandcouncil@westkelownacity.ca
- 4. Environment Climate office: ENVCIA@gov.bc.ca
- 5. Dr. Tynan, M.D. at Communities United For Clean Air@gmail.com to join efforts / ask questions / express concerns
- 6. Join an online info session with Q&A available for the public. Weekly Tuesdays 7:30 p.m. starting Tues April 16th, 2024, by zoom: http://tinyurl.com/stopforay48Bspray
- 7. Sign the Petition at Change.ORG named "Delay & Reconsider the Spongy (Gypsy) Moth Spraying in British Columbia"
- 8. If you are near a spray area and have an adverse reaction, during or after the spray, seek medical attention and report it to your local health authority as well as here: https://pest-control.canada.ca/public-engagement-portal/en/forms/voluntary-incident-report

BC Groups involved to connect with: <u>CallToActionCranbrook.com</u> & <u>http://crecweb.com/pesticides</u>
Join "Communities United for Clean Air (CUFCA)" @communities united for clean air (IG/FB) & email them as above

References — all research links below plus more & updates can be found at: <u>https://bcrising.ca/committee/natural-environment</u>

Permits and Maps where spraying will take place in BC communities soon: https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/forest-health/invasive-forest-pests/spongy-moth/news

Spongy Moth Detections in BC Communities: https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/forest-health/invasive-forest-pests/spongy-moth/detection-history

USDA - Btk research and testing (571 pages): https://cms.agr.wa.gov/getmedia/563dd666-85bc-459e-a7e6-705a1d9cc801/finalsupplementaleisvolumeiii.pdf

*if you feel spraying is ok because it's been occurring in alternating communities for years, you are encouraged to read the evidence provided stating many concerns & conflicting information, which has stopped the spray in many locations. Move beyond assumptions and relying on just information from organizations that benefit from these programs, who present the toxins as natural, safe, and needed. Instead review evidence, consider personal harms, ask questions, decide.