

Open Letter to Premier Gary Doer, Cabinet Ministers, Members of the Legislative Assembly, Winnipeg Mayor, Members of the Executive Policy Committee, City Councillors, Municipal Councillors and Civil Servants;

Whereas the elderly and those with weakened immune systems and chronic diseases are most at risk from West Nile virus (1) (2),

Whereas fogging with malathion for adult mosquitoes most affects unborn and developing children, the elderly and those with weakened immune systems (3) (4),

Whereas adulticiding is ineffective at killing mosquitoes and they are developing resistance to pesticides (5) (6),

Whereas adulticiding harms and kills off predator species, which don't rebound as quickly as mosquitoes (7) (8) and

Whereas adulticiding affects mosquitoes, birds, humans and other hosts and vectors of West Nile virus, in ways that increase levels and transmission of the virus (9) (10) (11)

Therefore be it acknowledged that

FOGGING WITH INSECTICIDES MAY INCREASE THE RISK OF WEST NILE VIRUS

Whereas the Government of Canada endorses Absolute Priority to Health and Environmental Protection (12) and

Whereas appropriate preventive measures are to be taken where there is reason to believe that a pesticide is likely to cause harm (13)

Therefore, we the undersigned respectfully request that you, our elected representatives and civil servants, ensure that there will be

NO FURTHER FOGGING FOR ADULT MOSQUITOES IN MANITOBA

prepared by Glenda Whiteman

Concerned Residents of Winnipeg (CROW), Inc.

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Sources

- 1) " Evidence shows that many people infected with West Nile virus have mild symptoms, or no symptoms at all. **People with weaker immune systems and people with chronic diseases are at greater risk for serious health effects. While the overall risk of serious health effects increases with age**, persons of any age or health status can be at risk of serious health effects associated with West Nile virus infection. That is why it is so important to avoid mosquito bites, especially if the virus is active in your neighbourhood, town or region." Health Canada <http://www.hc-sc.gc.ca/english/westnile/general.html#5>
- 2) "Less frequently, the virus can cause encephalitis, an inflammation of the brain. This is **more likely to occur among older adults and people who have weakened immune systems.**" *What you need to know about West Nile virus*, Government of Manitoba, infohealth brochure, p2, also available at: www.gov.mb.ca
- 3) "The Committee recommends that the government ensure legal protection, through the new Pest Control Act, for **the most vulnerable groups: fetuses, children, seniors, women, Aboriginal people, persons suffering from multiple chemical sensitivity or in poor health, and professional users of pesticides.** To this end, decisions on pesticides should be based on the protection of the most vulnerable groups." *Pesticides: Making the Right Choice for the Protection of Health and the Environment*, House of Commons Standing Committee on Environment and Sustainable Development, May 2000, p180, available on the Parliamentary Internet: www.parl.gc.ca
- 4) "**Children are particularly vulnerable to the effects of pesticides.** Children eat and drink more per kilogram of body weight than adults. Their skin is more permeable and their livers do not excrete as efficiently as adults'. Their hand-to-mouth behaviour increases the chance of ingestion and they play on the ground outdoors and on the floor indoors. Parents track pesticides indoors on their shoes, inadvertently exposing their children. Some pesticides that degrade outdoors in sunlight are more persistent once they are present indoors." *Pesticides Literature Review*, Ontario College of Family Physicians, April 2004, p 4, available at www.ocfp.on.ca
- 5) "The effectiveness of malathion as a tool for mosquito control decreases over time because **mosquitoes build up resistance** to it. In addition, application procedures can be ineffective. For instance, when malathion is applied via ultra low volume spraying by mist blowers, hydraulic sprayers or aircraft, only about one drop in 1000 will actually hit the mosquito. Since it takes three drops to kill a mosquito, this not only means that spraying often fails to kill the target organism, but **virtually all of the pesticide ends up on non-target species.** When considering pesticides for community mosquito control programs, even for West Nile Virus, malathion is a poor choice. It has been linked to birth defects, a wide range of cancers, and other health problems in humans and non-target wildlife species. The great irony is that **it is not very effective.**" *Malathion Fact Sheet*, Sierra Club of Canada, available at: <http://www.sierraclub.ca/national/programs/health-environment/pesticides/malathion-fact-sheet.shtml>
- 6) "Broad-spectrum insecticide resistance is increasing, and is hastened by wide-range, frequent insecticide applications. (4) As insects adapt, higher application rates increase risk to other species, including humans. Non-specific pesticides harm people and mosquito-predator populations directly, (5) and also decrease predator populations indirectly by interrupting (temporarily) the supply of the mosquitoes they eat. For example, eleven years of pesticide spraying to control adult mosquitoes carrying equine encephalitis in NY state led to a fifteen-fold increase in mosquito carriers of the disease. (6) When the pesticide effect wears off, the environment has lost its natural checks and balances. **Mosquitoes have short life spans and populations rebound in days or weeks, while mosquito predator populations rebuild more slowly, if at all.**" Official CCHE position on the West Nile virus, Canadian Coalition for Health & Environment, p1, available at: <http://www.cche-info.com/pdf/cche--pesticides-wnv-statement.pdf>

7) "Pesticide use in Canada has resulted in contamination of drinking water sources and **harm to birds and fish.**" *Managing the Safety & Accessibility of Pesticides*, Report of the Commissioner of the Environment & Sustainable Development to the House of Commons, Office of the Auditor General of Canada, 2003, p 24, available at www.oag-bvg.gc.ca

8) "Minimal amounts of pesticides are believed to reach their target. One set of estimates indicates that 0.1 to 5% of an herbicide may reach its target weed, and 0.003% of an insecticide may be consumed by the target pest. These estimates suggest that the remaining quantities of pesticides are released into the environment, where they can **adversely impact non-target organisms such as birds.**" *Pesticides: A Public Health Perspective* Toronto Public Health Environmental Protection Office, October 1998, p 30

9) "Aside from the adverse health effects posed to humans, adulticiding may actually increase the number of mosquitoes by destroying their natural predators.¹ Additionally, mosquitoes that survive the spraying may become resistant, longer-lived, more aggressive, and have **an increased prevalence of the virus within their bodies.**"² *Public Health Mosquito Management Strategy: Managing mosquitoes and insect-borne diseases with safety in mind* Pesticides and You, Vol. 22, No. 2, 2002, p 13, Beyond Pesticides/National Coalition Against the Misuse of Pesticides, also available at: http://www.beyondpesticides.org/MOSQUITO/reportsandpublications/mosquito%20_strategy.pdf

10) "We have good reason to suspect that spraying will increase mosquito populations and that the **increased populations will have a higher proportion carrying WNV and be more pesticide resistant. Simultaneously, spraying could make humans both more likely to catch a mild version of WNV and transform if from a mild flu to a serious encephalitis.** If someone asks, "What can we do to stop the spread of WNV?" the answer should be that the most important preventive action is to stop spraying pesticides. Spraying to fight WNV is like trying to put out a fire by pouring gasoline on it." *Spraying Can Make West Nile Virus Worse*, Green Party of St. Louis, available at: <http://www.greens.org/s-r/31/31-16.html>

11) "Second, mosquitos which transmit West Nile are suspected of having **damaged stomach linings, which allow the virus to move past the lining and into the mosquito's salivary glands.** Many scientists believe that mosquitos primarily develop such damage from sub-lethal doses of insecticides. That would increase the likelihood that they would transmit viruses from birds to mammals. Those 15x mosquitos are probably transmitting more than 15x the number of viruses to humans.

Third, West Nile virus only seriously affects people with impaired immune system or damaged blood-brain barrier. Even Health Canada admits that "[most people infected with West Nile virus experience no symptoms.](#)" It is only the elderly or those who are already ill who may (and even then rarely) develop serious complications. Human exposure to neurotoxins is known to impair our immune system, especially when the exposure exceeds our body's ability to detoxify them. There is also documented evidence (Ann N Y Acad Sci 917:944-50 2000) that exposure of healthy mammals to solvents such as those associated with most pesticides damages the blood-brain barrier, thus greatly increasing the risk of encephalitis by West Nile. So, **exposure of people to Malathion and its solvents will increase their chances of having severe health effects if bitten by a mosquito, compared to people who have had no exposure to pesticides.**" *West Nile Virus and Insecticides*, available at: <http://www.sankey.ws/wnv.html>

12) "The government, like the Standing Committee, makes the **protection of human health and the environment the absolute priority** for pest management decisions." Government Response to the Report of the House of Commons Standing Committee, *Pesticides: Making the Right Choice for the Protection of Health and the Environment*, p 3, available at <http://www.hc-sc.gc.ca/pmra-arla/english/pdf/hlawns/hl-GovtResp-e.pdf>

13) "Appropriate preventive measures are to be taken where there is reason to believe that a pesticide is likely to cause harm, even when there is no conclusive evidence to prove a causal relation between the pesticide and its effects. *Pesticides: Making the Right Choice For the Protection of Health and the Environment*, Standing Committee on Environment and Sustainable Development, May 2000, p13, available on the Parliamentary Internet at: www.parl.gc.ca