

# Risk assessment of malathion pesticide application



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West Nile virus (WNV) is a dangerous nervous system disease that spreads primarily by mosquitoes (2007). According to data from the Center for Disease Control and Prevention (2007), there were 4,269 West Nile Virus cases in the United States in 2006 and 177 were fatalities. The West Nile Virus does not discriminate from the rich, the poor or the uneducated. By administering the application of harmless pesticides we can not only cut down the death rate, but we can also provide a safer environment. Our city, Genericville has an economically diverse population of 100,000 people that depend on its summer tourism to provide its inhabitants a sense of belonging.

Our city has taken great measures to prevent spring flooding. The city has several wetlands along the banks of the river that runs through the center of Genericville. These wetlands provide a source of nutrients for several species of birds and fish among many other environmental elements. The downfall is that it is also a breeding ground for mosquitoes that could spread diseases like the West Nile Virus.

Without the application of Malathion by aerial and ground spraying it could possibly reduce tourism which would create further poverty. Implementing the doses could kill the natural predators of mosquitoes and ultimately increase the spread of the West Nile Virus. Using the pesticide would drop the cases of West Nile virus from 50 to 5 with a less than 20% chance of fatalities in each of the 5 cases. Many people in town especially the poor or uneducated would not follow safety precautions required by the Malathion application program. This would come from not knowing the pros and cons of the effects of the Malathion application.

. Residents could be outside during the aerial and ground spraying or they could handle or eat matter containing residues from the application of the pesticides. Informing the residents would reduce the risk of this happening.

3Government studies indicated that long-term environmental risk from Malathion application was unlikely because the pesticide degrades to harmless materials rapidly after application.

These findings come from the Agency for Toxic Substances and Disease Registry, (2005, Section 1). There could be 90 cases of Malathion-related illnesses from the proposed application program. But there could be many more without the application. Malathion applications can be controlled safely. But the mosquito population would prove to be harder without the application.

In weighing the risk factors with the final solution, there are several things that need to be done if it is going to truly benefit everyone. For the education process, this decision has to be unwavering. Fliers, news releases, classes, etc., have to be set in motion. To educate the poor or the uneducated will take a lot more effort. Make sure everyone is notified as to when the spraying will happen.

Make sure those that are living on the streets are inside safely during these times. Go door to door if necessary. Make sure the entire community knows the necessity of its application. Teach this in the school system.

Making children aware along with the adult population will make the task a lot easier to understand and make the community more accepting to the application process. If everyone works together to make it work then

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spraying the pesticide Malathion will work. After looking over all the research and looking at the pros and cons of the Malathion application, I have come to the conclusion that it would be safe for the citizens of Genericville. This would also increase tourism by eliminating the West Nile Virus risk.

Understanding that the pesticide diminishes completely after one week of application, my vote would be to proceed with the application of Malathion.