



BEYOND PESTICIDES

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FIFTEEN REASONS TO REDUCE PESTICIDE USE ON STATE PROPERTY

Best management practices for public property include pesticide reduction. Non-toxic pest management tools provide methods, products and techniques that do not put human health and the environment at risk. Comparatively, pesticides are products that are purposely designed to kill living organisms. Toxic pesticides are found in thousands of products that are used in schools, government buildings, parks and other public areas. They are used to kill a range of undesirable species, including insects, rodents, plants, fungi, bacteria and mildew. They can be inhaled, absorbed through the skin, and ingested. Many people assume that, because pesticides are registered and pesticide use is common, they must not be harmful; however, registration of a pesticide by the Environmental Protection Agency (EPA) does not mean that it is safe. In fact, the U.S. Government Accountability Office (GAO) has told Congress on several occasions that the public is misled on pesticide safety by statements characterizing pesticides as “safe” or “harmless.”ⁱ While there are numerous reasons to use non-toxic alternatives to pesticides, consider the following fifteen points on public and environmental health:

1. Studies of major U.S. rivers and streams document that 90 percent of all fish, 100 percent of all streams, 33 percent of major aquifers, and 50 percent of shallow wells contain one or more pesticides at detectable levels.ⁱⁱ
2. Pesticides can be toxic to all wildlife, not just target species, and cause food source contamination, behavioral abnormalities that interfere with survival, and death.ⁱⁱⁱ
3. Researchers have found exposure of an individual to certain pesticides can cause transgenerational disease, reduced fertility and tissue abnormalities in laboratory tests.^{iv}
4. Of 30 commonly used lawn pesticides: 16 are toxic to birds, 24 are toxic to fish and aquatic organisms, and 11 are deadly to bees.^v
5. Of 30 commonly used lawn pesticides: 19 have studies pointing toward carcinogenicity, 13 are linked with birth defects, 21 with reproductive effects, 15 with neurotoxicity, 26 with liver or kidney damage, 27 are sensitizers and/or irritants, and 11 have the potential to disrupt the endocrine (hormonal) system.^{vi}
6. Scientific studies find pesticide residues such as the weedkiller 2,4-D and the insecticide carbaryl inside homes, due to drift and track-in, where they contaminate air, dust, surfaces and carpets and expose children at levels ten times higher than preapplication levels.^{vii}



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7. Pregnant women, infants and children, the aged and the chronically ill are at greatest risk from pesticide exposure and chemically induced immune-suppression, which can increase susceptibility to cancer and other disease.^{viii}
8. Pesticide risk analysis seldom takes into account real world scenarios of exposure, such as the influence chemical mixtures, such as pharmaceuticals and pesticides, have on health.^{ix}
9. Studies have shown that groups exposed to higher levels of pesticides than the average population have higher rates of asthma and other respiratory problems. Pesticides have also been shown to trigger asthma attacks.^x
10. Pesticides, such as 2,4-D, chlordane, DDT, dieldrin, heptachlor, malathion and triazines (e.g. atrazine) have either been shown to increase the risk of breast cancer or are linked to the disease.^{xi}
11. Persistent pesticides have been shown to stay in the environment, move throughout the globe, accumulate in the food chain, and are found in body fat and breast milk.
12. Pesticides can interfere with the functioning of the endocrine system, which is an internal messaging system that controls development and daily functioning in wildlife and humans. Endocrine disruption has the potential to affect everything from an individual's behavior to reproductive ability.^{xii}
13. Studies show pesticide exposure begins at conception and continues throughout pregnancy and beyond. During prenatal development, pesticides can alter neurodevelopment.^{xiii}
14. Strong causal links exist between pesticide exposures and cancers of the brain, Wilms tumor, leukemia, and non-Hodgkin's lymphoma.^{xiv}
15. Biomonitoring studies reveal a body burden of toxic chemicals exists throughout the nation's population. Greater than 50% of subjects tested by the Centers for Disease Control and Prevention were found to have the following pesticides and/or metabolites within their bodies: permethrin, cypermethrin, deltamethrin, chlorpyrifos, methyl and ethyl parathion, 2,4-D, lindane, chlordane, 2,5-dichlorophenol (moth balls) and DDT.^{xv}



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