



# School Pesticide Monitor

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## Report Finds Numerous Schools Near Toxic Pesticide Fields

California Department of Public Health found that 36 percent of public schools in the state have hazardous pesticides applied within a quarter mile of the school. Persistent and toxic pesticides like chlorpyrifos, methyl bromide, and malathion are among the pesticides found to be applied near schools. The department also found that Latino children are 46 percent more likely than white children to attend these schools.

In their report, "Agricultural Pesticide Use near Public Schools In California, the department found that

California counties in the southern part of the Central Valley had the most schools near farms where pesticides were applied. Fresno County had the highest number of schools—131—with pesticides applied nearby. Five percent of schools are within a quarter mile of where the highest volumes of pesticides are used: 2,635–28,979 pounds of active ingredient.

The report's findings are touted by health professionals who say dangerous pesticides are coming too close to kids. "This is truly important information that we've not

previously had," said Irva Hertz-Picciotto, PhD, MPH, a professor in environmental and occupational health at UC Davis. "These pesticides are not entirely benign, and several of them affect brain development."

The reports lists the top 10 pesticides with the highest application by volume within a quarter mile of a public school including, chloropicrin, 1,3-dichloropropene, paraquat dibromide, captan, malathion and chlorpyrifos. The majority of

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## EPA's Response on Pesticide Drift and Children's Health Challenged

Environmental and farmworker advocacy groups filed an Administration Objection and a court appeal May 29 challenging the Environmental Protection Agency's (EPA) refusal to correct pesticide registration errors quickly and immediately implement measures to protect children from exposure to dangerous pesticides that drift from fields during and after application.

The groups, which include United Farm Workers, Pineros y Campesinos Unidos del Noroeste, Pesticide Action Network North America and others, originally filed a petition

back in 2009, which asked that the agency properly comply with an existing law that requires EPA to protect children's health from exposure to pesticides that drift from fields and orchards. After a more than four-year wait and a court appeal, EPA finally provided a response last March.

However, groups objected to the response, stating that the agency is refusing to correct pesticide registration errors and protect children from exposure to dangerous pesticide drift in a timely manner, potentially prolonging compliance by another eight years. While EPA

officials acknowledge that the agency had failed to consider drift when setting pesticide limits, the original deadline to complete this obligation under the *Food Quality Protection Act (FQPA)* came and went back in 2006; in face of this acknowledgement, however, EPA is declining to implement immediate protection or change its current plans and timelines, which extend to 2022.

The petitioners are asking the EPA to immediately rectify the agency's failure to consider pesticide drift in tolerances. Whether this request is

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## Proximity

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the pesticides are restricted use, requiring special permits for their application, as well as application restrictions. However, even when pesticides applied according to label, monitoring data show that pesticides can volatilize and drift, and move over long distances fairly rapidly through wind and rain. Some studies have found that pesticides can drift for miles. Documented exposure patterns resulting from drift cause particular concerns for children and other sensitive population groups. Adverse health effects, such as nausea, dizziness, respiratory problems, headaches, rashes, and mental disorientation, may appear even when a pesticide is applied in compliance with label directions.

Several fumigants, including methyl bromide, also made the top 10 list. Methyl bromide, while phased-out in the U.S., has continued to be used in alarming amounts across California due to a sizeable loophole in regulations. Other pesticides found to be applied near these sensitive areas include several carcinogens

(captan, diuron, mancozeb), reproductive and developmental toxicants (carbaryl, linuron, EPTC), and neurotoxicants (naled, chlorpyrifos, diazinon).

Although the report identified schools near sites where pesticides are used, it did not assess the effect of the chemicals on children, nor did it account for how the pesticides might drift onto school territory, or how children could be affected. However, children are especially sensitive to pesticide exposure as they take in more pesticides relative to their body weight than adults, and have developing organ systems that are more vulnerable and less able to detoxify toxic chemicals. Even at low levels, exposure to pesticides can cause serious adverse health effects.

Latino children made up 54.1% of the population in the public schools in the counties that were assessed, and comprised 67.7% of the population in schools in the highest quartile of pesticide use. While not inferred by the report, these children likely belong to farmworker communities living near agricultural areas, which tend to have

disproportionate exposure risks to pesticides drift, and are at higher risks of developing serious chronic health problems such as cancer, neurological impairments and Parkinson's disease.

EPA has previously found that Latino schools in California disproportionately suffer from exposure to pesticides due to pesticide spraying near their schools, but has yet to adequately remedy these risks. Last summer, a lawsuit was filed by concerned parents challenging EPA's lack of action, arguing that ongoing pesticide monitoring set up by CDPR did not protect children from excessive exposure to pesticides.

The report does not make any assertions about the health effects and hazards that pesticides pose to children, nor does it provide recommendations on how to avoid such exposure. However, the researchers do hope that the report will be used by school officials, local environmental and health officials, and others to inform policies that may impact public health, such as school-siting decisions and pesticide application permitting regulations.

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## Drift

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fulfilled on time or not, however, petitioners ask that EPA at minimum immediately adjust tolerances to include the additional tenfold safety factor, as required by FQPA.

A number of health effects have been linked to pesticide exposure in children, including birth defects, respiratory disorders, and cancer. Additionally, a recent report from the California Department of Pub-

lic Health finds that over a third of public schools in the state have pesticides of public health concern applied within a quarter mile of the school, including persistent and toxic substances like chlorpyrifos, methyl bromide, and malathion.

While EPA has required pesticide labels to include warnings regarding spray drift for decades, the agency has also recognized that this measure is insufficient to protect populations like children. In fact, poisoning incident reports show that drift continues to pose significant risks.

The California Department of Pesticide Regulation documented 3,997 reported pesticide drift incidents in the state between 1992 and 2007, which may reflect just a fraction of total incidents.

These reports and studies highlight the importance of reducing children's pesticide exposure. The failure to include pesticide drift and a safety factor when setting tolerances in a timely manner precludes an entire generation of children from getting the protection that they need.