

Failing to Protect California School Kids

February 2016

Pesticides used in combination near schools increase risk of cancer

In a first-of-its-kind study, UCLA's Sustainable and Technology Policy Program (STPP) looked at real-world applications of three fumigant pesticides applied in California. They found that these pesticides are routinely applied in the same area, either together or one right after the other, and that exposure to any two of these pesticides in combination can increase cancer risk by more than just their sum. State regulators do not account for this added risk and must act swiftly to protect the most vulnerable and most impacted — including more than half a million California schoolchildren.

STPP calls the failure to consider interactive effects “a potentially serious health concern, because toxicological responses to mixtures of chemicals can be quite different compared to responses to each chemical separately.”

Clear risk, unaccounted-for harm

The report examined three fumigant pesticides that are frequently applied near schools: chloropicrin, Telone (1,3-dichloropropene), and metam salts. Fumigants are among the most toxic and difficult-to-control chemicals used in farming. By themselves, each of these pesticides can cause adverse health effects including cancer, developmental and reproductive harms, and acute poisoning.

STPP found that these fumigants are frequently applied together, either as a mixture, simultaneously, or in quick succession. Exposure to two of these fumigants at a time increases the likelihood of developing cancer because they interact with each other to cause more harm than their sum. This can happen when one fumigant attacks the body's detoxification mechanisms, leaving it more vulnerable to harm from another.

We all know about drug interactions: some drugs can be dangerous when taken together, and the Food and Drug Administration (FDA) is careful to consider these heightened risks. But unlike the FDA, the California Department of Pesticide Regulation (DPR) — the agency in charge of protecting the public from pesticide harm — fails to consider pesticide interactions.



Within a quarter mile of schools across California, over 140 different pesticides are routinely applied. We must act swiftly to protect the most vulnerable — our kids.

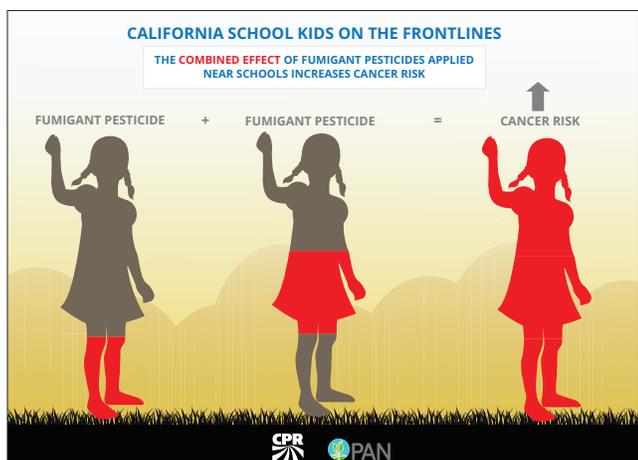
Children are especially at risk

Children's developing bodies take in more of everything. Relative to their size, kids eat, breathe and drink much more than adults. An infant takes in about 15 times more water than an adult per pound of body weight and, up to age 12, a child inhales roughly twice as much air.

The body's systems undergo rapid changes at various stages throughout childhood. Interference from pesticides and other chemicals at critical moments of development — even at very low levels — can derail the process in ways that can lead to significant, permanent health harms. ¹

Documented exposure

Telone, chloropicrin and metam salts are among the top four pesticides applied within a quarter mile of schools.² As the report documents, these pesticides are routinely applied in large amounts in close proximity to millions of Californians — many of them growing children. The study looked at just three pesticides, but a California Department of Public Health study found that more than 140 pesticides are regularly used near California schools,³ and the interactions between them have never been considered. In real life, communities are being exposed to multiple pesticides at once, but DPR assesses their health impacts by looking at each pesticide in isolation.



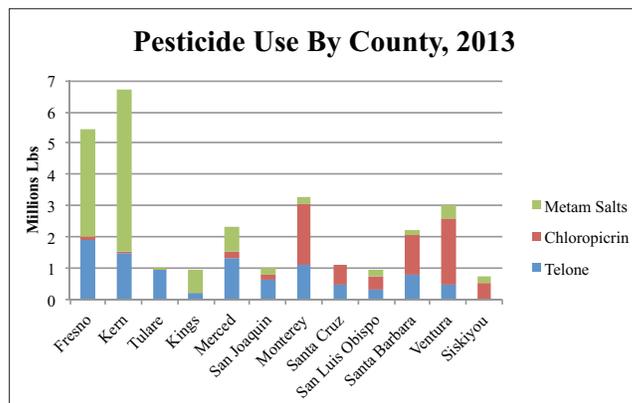
A recent report from UCLA documents that many Californians are likely exposed to multiple pesticides at a time, increasing the risk of cancer.

Regulatory failure

DPR is obligated under California law to consider cumulative exposure, which means regulating pesticides that are frequently used together.⁴ This report makes clear that DPR's failure to do so greatly underestimates the harm to California's most vulnerable residents, including half a million schoolchildren.

"Here in Pajaro Valley [Monterey Bay], chloropicrin and Telone are used together frequently and in large amounts right next to where children learn and play. The UCLA report provides yet more evidence that the health threats are worse than the pesticide companies and the state have been telling us. It's time to act, not wait for the next report."

— Francisco Rodriguez, President,
Pajaro Valley Federation of Teachers



The fumigant pesticides that can combine to increase cancer risks are widely used in California.

Comprehensive rules are needed now

State officials are considering new rules that would provide protections for schoolchildren and their teachers from multiple pesticides, including fumigants. These rules should include, at a minimum, a one-mile, full-time buffer zone for the most hazardous agricultural pesticides, along with more stringent notification requirements. Unsurprisingly, the new rules face fierce opposition from pesticide corporations and applicators.

DPR's proposed new regulations for pesticide use near schools will take effect in 2017. We hope you'll join us in asking for rules that prioritize protecting children's health. To get involved in this effort, please download the California Healthy Schools Toolkit at www.panna.org/resources/healthy-schools-toolkit.

Notes

- <http://www.panna.org/resources/publication-report/report-generation-jeopardy>
- Agricultural pesticide use near public schools in California. 2014. California Environmental Health Tracking Program. http://www.cehtp.org/page/pesticides_near_schools
- Ibid
- http://resources.ca.gov/ceqa/docs/2014_CEQA_Statutes_and_Guidelines.pdf

For more information:

- Zaubrecher V, Hattis D, Malloy T, Melnick R, Kegley S, Froines J. 2016. Exposure and interaction: the potential health impacts of using multiple pesticides. UCLA Sustainable Technology & Policy Program. <http://www.stpp.ucla.edu/node/586>
- www.panna.org/our-campaigns/healthy-schools
- www.pesticidereform.org