

California Healthy Schools Toolkit

Tips & tools for protecting school kids from pesticides



PAN

PESTICIDE ACTION NETWORK • NORTH AMERICA



Statewide coalition working to protect California communities

This toolkit was created by Pesticide Action Network (PAN) North America and Californians for Pesticide Reform (CPR) — a statewide coalition — to help protect California communities from the harms of agricultural pesticides.



Californians for Pesticide Reform (CPR) is a statewide coalition of more than 190 public interest groups dedicated to protecting human health and the environment from the dangers of pesticide use. Founded in 1996 to fundamentally shift the way pesticides are used in California, CPR has built a diverse, multi-interest coalition to challenge the powerful political and economic forces opposing change.

Website: www.pesticidereform.org | **Phone:** (415) 981-3939



Pesticide Action Network (PAN) North America works to create a just, thriving food system. For too long, pesticide and biotech corporations have dictated how we grow food, placing the health and economic burdens of pesticide use on farmers, farmworkers and rural communities. PAN works with those on the frontlines to tackle the pesticide problem — and reclaim the future of food and farming.

Website: www.panna.org | **Phone:** (510) 788-9020

No pesticides for school kids

Environments we'd like to consider "safe" too often bring children into contact with harmful pesticides. In any given day, a child may absorb a wide range of these chemicals into their bodies, primarily through food and environmental exposures.

School kids living in agricultural areas are also exposed to pesticides traveling from neighboring fields. Current "buffer zones" fail to protect kids from these chemicals. Too often pesticides drift to nearby school yards, contaminating the air and settling onto playground equipment and more.

Activism from parents, teachers and other community members is key to changing this situation. Together we can better protect children from pesticides and encourage California agriculture to lead the way in growing healthy and fair food. Join us by learning more and speaking up.

This toolkit will help you get started.



Drift happens

In California, where much of the country's fruits and vegetables are grown, health-harming pesticides are routinely used on fields near schools.

According to data from the state, **more than 500,000 children attend schools within a quarter mile of fields where health-harming pesticides are applied.**

As documented by local community groups and the California Department of Pesticide Regulation, these pesticides don't stay where they're put. Pesticides travel, or drift, from the fields to neighboring schools.



What's on their food?

Children are also exposed to pesticides through the foods they eat. California's pesticide residue monitoring found one or more residues on more than 50% of the produce sampled. Adding to the concern, multiple studies show that pesticide exposure in utero and in early childhood — even at very low levels — can have long-lasting health impacts.

47 different pesticide residues are found on conventional apples. www.whatsonmyfood.org

The good news is, this is a problem we can all do something about. Join parents, teachers and healthcare providers across the state in urging policymakers to protect school kids from pesticides in the air and on their plates.

This is a problem California policymakers can — and should — do something about. Right now.

Frequently asked questions

1. How do pesticides affect children's health?

Compelling research shows that pesticide exposure at critical windows of children's development, such as prenatally, at birth, in the first five years and at key moments like puberty, can have serious and long lasting impacts on children's health.

Pesticide exposures for children and pregnant women have been scientifically linked to a host of health impacts like cancer, changed brain architecture, hormone disruption, asthma, developmental disabilities and autism, among others.

Even very low dose exposures to pesticides can have effects that last a lifetime.

For example:

- ✓ **Chlorpyrifos** has been linked to reduced IQs, changes in brain architecture and increased risk of autism spectrum disorders and ADHD.
- ✓ **Telone** is a known carcinogen. It is used beyond safe limits in California due to lax policies and has been documented drifting onto school grounds.
- ✓ **Chloropicrin** is considered carcinogenic by California officials. And its use has been on the rise.



For more on how pesticides affect children's health, see PAN's report *A Generation in Jeopardy* at www.panna.org/publication/generation-in-jeopardy.

2. Why are children more vulnerable to the impacts of pesticides?

Quickly growing bodies take in more of everything, and the body's systems are undergoing rapid changes throughout childhood — changes that pesticides can easily derail. For example:

- ✓ **Taking in more:** 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.
- ✓ **Absorbing more:** Children are much more likely to absorb pesticides than adults. The skin of infants and young children is particularly permeable, and absorption levels in the lungs and gut are also high.
- ✓ **Nervous system at risk:** The brain and nervous system are especially vulnerable during fetal development and for the first six months of life, before the blood-brain barrier is fully developed.
- ✓ **Missing safeguards:** Children's biological systems are less able to process harmful contaminants than adults, particularly in the first seven years of life.



3. How do we know pesticide drift is a problem for California school kids?

In addition to the low-level exposure from pesticide residues on food experienced by children across the country, children in rural areas can also face pesticides drifting from nearby fields or contaminating water supplies.

A 2014, first-of-its-kind report from California's Department of Health (DPH) found that health-harming agricultural pesticides are being sprayed close to schools across the state.

Not just a few pesticides, either — or a few schools. More than 500,000 California children in hundreds of schools spend their days within a quarter mile of pesticide applications. Of these, more than 100,000 (mostly Latino) children in 226 schools attend classrooms near fields with the heaviest use of dangerous chemicals. We have a problem.

We know these pesticides can drift from where they're applied, and often much more than a quarter mile. We also know many of these pesticides can put kids' health at risk.

Of the top 10 pesticides most commonly used near schools in California, all have been linked to at least one harmful impact on children's health or development — from cancer to reproductive system harms, from IQ loss to neurodevelopmental delays. Some can have multiple impacts.

TOP 10 PESTICIDES (IN POUNDS USED/year)		HEALTH EFFECTS				
		POISON	CANCER	FERTILITY, PREGNANCY, CHILD DEVELOPMENT	HORMONES DISRUPTOR	BRAIN & NERVOUS SYSTEM DAMAGE
TOP 5 are FUMIGANTS	Chloropicrin	✓	✓	?	?	
	1,3 dichloroprene	✓	✓	?	?	
	Methyl bromide	✓		✓	✓	✓
	Metam-sodium	✓	✓	✓	✓	
	Metam potassium	✓	✓	✓	?	
	Captan	✓	✓	?	?	
	Pendimethalin		?	?	✓	
	Chlorpyrifos	✓		?	✓	✓
	Paraquat dichloride	✓		?	✓	?
	Malathion	✓	?	?	✓	✓

Source: CDPH, pesticideinfo.org



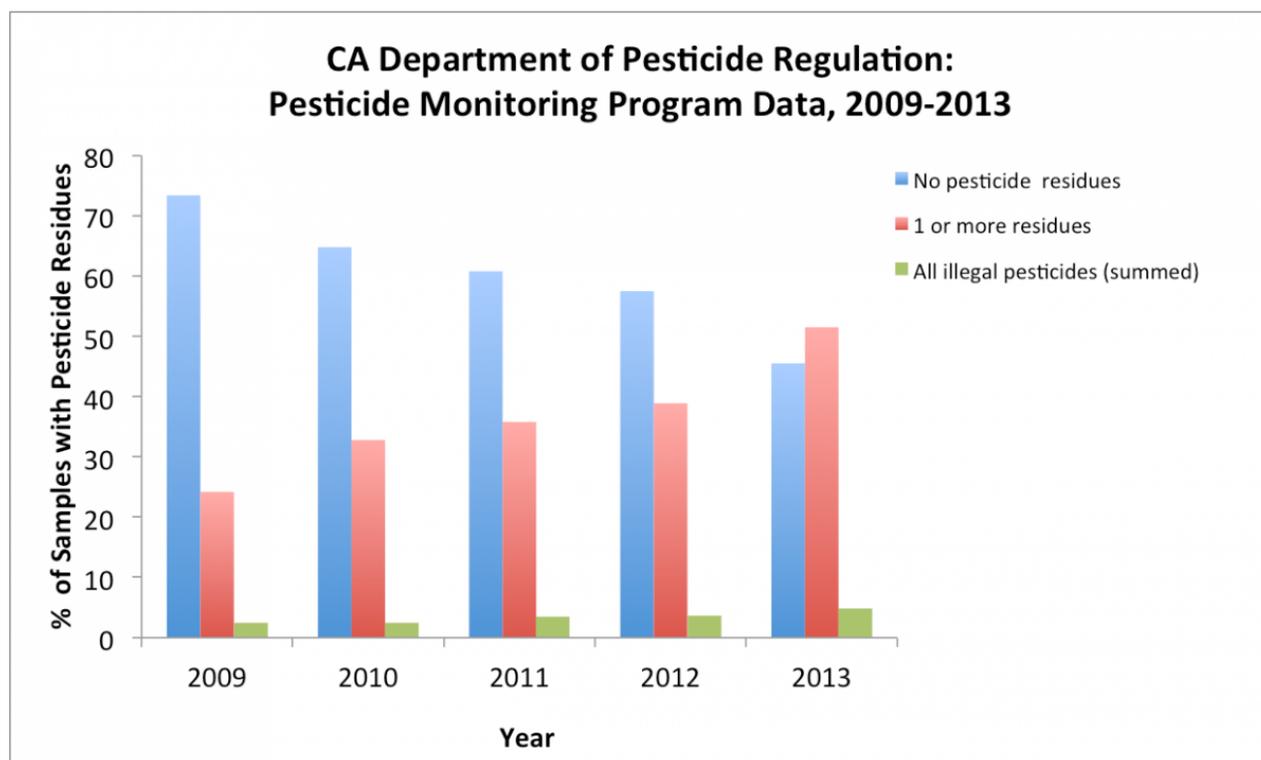
4. How serious is the issue of pesticide residues on food?

In a 2012 report, the American Association of Pediatrics (AAP) makes it crystal clear that an organic diet reduces children’s pesticide exposure, citing the National Research Council finding that **"the primary form of exposure to pesticides in children is through dietary intake."** The AAP also notes several studies showing that levels of pesticides measured in children's bodies are directly related to their diet.

A 2015 study in Environmental Health Perspectives confirms that when children eat organic, the levels of pesticides in their bodies — including the brain-harming variety — go down. This seems a common-sense conclusion for many of us, but the more science we have to document the case, the better.

Fruits and vegetables are of course core sources of nutrition for our children, and while we always wholeheartedly encourage eating fresh fruits and veggies, these studies underscore that the healthiest version for our kids will be organic or as close to pesticide-free as possible.

To learn more about specific pesticide residues on food — and their potential impact on kids’ health — visit www.whatsonmyfood.org.



www.cdpr.ca.gov/docs/enforce/residue/rsmonmnu.htm

5. What can California officials do to protect school kids from drift?

California is an innovative state. The solutions that take us forward and preserve our spot as agricultural leader and protect children's health are readily available.

To better protect school kids, and many others, from exposure to harmful pesticide drift, the California Department of Pesticide Regulation (DPR) should do the following:

- ✓ **Expand buffer zones around schools to one mile.** Current laws, and their enforcement, vary from pesticide to pesticide and from area to area. In the few counties that have buffer zones around sensitive sites, like schools, very few go beyond 1/4 mile. This is not enough to protect children's health.
- ✓ **Regularly monitor the use of health-harming pesticides in close proximity to schools.** The 2014 California Department of Public Health report that documented pesticide use near schools was the first of its kind. This data is readily available and should continue to be monitored and made publicly available.
- ✓ **Put these new rules in place by September 2016.** The exposure California school kids face is real. It's important that policymakers support kids to learn and grow without being harmed by pesticides.

6. How can officials support farmers to shift away from pesticides?

Many farmers are already protecting their families, workers and neighbors from exposure to hazardous pesticides by using alternative methods of crop management. And more can do the same, with additional support from the state.

California Department of Pesticide Regulation (DPR) — along with the California Department of Food and Agriculture (CDFA) and Governor Jerry Brown — should help farmers create agricultural innovation zones around schools and keep California farming prosperous and cutting edge.

By incentivizing agriculture innovation zones, the state would encourage practices that build soil health, promote healthy pollinators and reduce pesticide exposure for communities across the state.

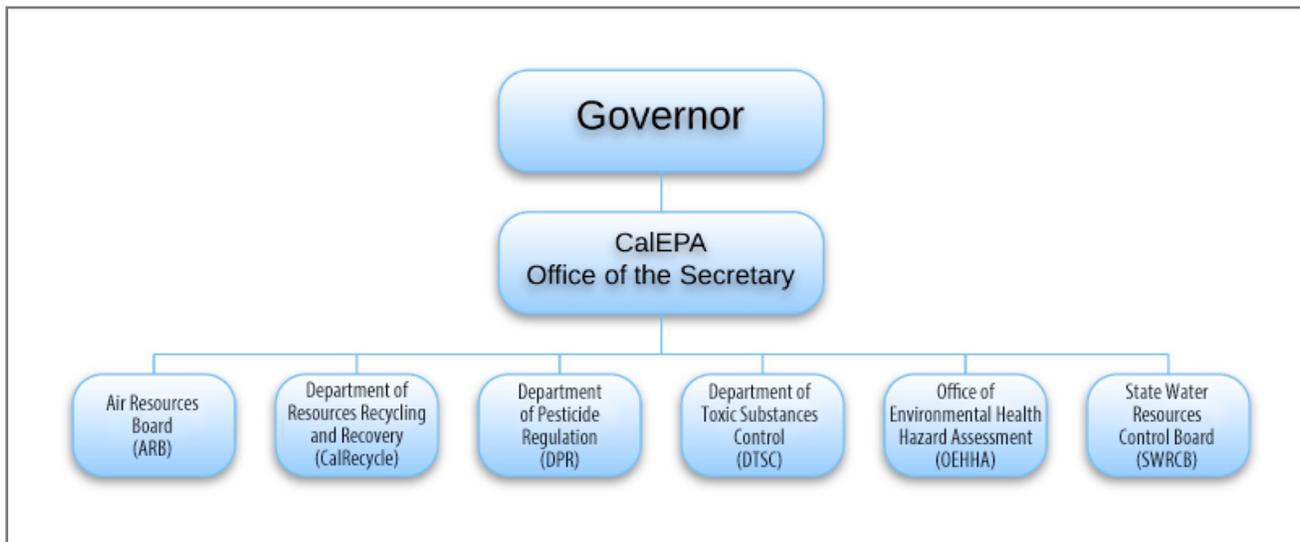
These policy shifts will also help protect school kids from pesticides, along with ongoing efforts to reduce exposure to residues on food.

Make change for school kids in your community

Do one thing. Nobody can do everything, but everybody can choose one thing and do it. Whether it's writing a letter or giving a donation, making a phone call to policymakers or talking to your friends and neighbors about pesticides and school kids — we each have real power. That power builds when we act together, and it starts when one person does one thing.

1. Hold leaders accountable

Various agencies and legislators collectively determine agricultural policy and practice in California. They all have a role to play in reducing children's exposure to pesticides and supporting farmers transitioning way from chemical intensive agriculture. **We encourage you to be in touch with them directly, as someone who is a parent or cares about the wellbeing of school kids in the state and beyond.**



Source: www.calepa.ca.gov/About/

Talk to decisionmakers about drift

Want to know who to contact? These state officials have authority to change the rules and ensure kids are better protected from pesticides.

Governor Jerry Brown has ultimate power over the affairs of the state. More specifically he oversees the California Environmental Protection Agency (CalEPA) and appoints the director of DPR.

California state legislators represent the concerns of people in their district. Legislative members can help pass relevant laws to address issues faced by residents of the state, as well as pressure state department and agencies to act on people's concerns.

Find contact information for your elected state representatives here:
www.findyourrep.legislature.ca.gov.

The Department of Pesticide Regulations (DPR) is in charge of controlling how pesticides are used and sold in the state.

After these regulations are made public, there will be a brief window of time for comments from people like you. Stay tuned for opportunities to weigh in!

The California Environmental Protection Agency (CalEPA) develops, implements and enforces environmental laws that regulate pesticide use in the state.

You can voice your concern by writing the Secretary of CalEPA at this address:

CA Environmental Protection Agency
 1001 I Street, P.O. Box 2815
 Sacramento, CA 95812-2815
 Email: SectyRodriquez@calepa.ca.gov

County Agricultural Commissioners are appointed by respective County Board of Supervisors and carry out the laws and regulations of the state and enforce local ordinances with respect to agriculture in the county. Ag commissioners enforce pest management laws and regulations in their county. Some laws and regulations allow for ag commissioners to exercise discretion for how laws are enforced. For example, some county ag commissioners in California have enforced buffer zones around sensitive sites, like schools.

Heads up!

DPR will issue a draft set of regulations for agricultural pesticide applications near schools in **December 2015**. Join communities in demanding new rules are strong, health protective and in place before the new school year starts in 2016.

Get involved at www.panna.org/healthyschools.

You can find the contact information for your county ag commissioner at
www.cdfa.ca.gov/exec/county/countymap.

School boards do not have authority to establish protective buffer zones around schools. But their explicit support — expressed through letters of support, resolutions or statements — for such buffer zones can be quite influential.

Report Drift! If you've observed any activity, conduct or physical evidence that shows children in your town are exposed to pesticide drift, contact your County Ag Commissioner — and call 911 if there's an emergency.

Talk to decisionmakers about pesticide-free school lunches

Parents and other concerned adults have a very powerful role to play in ensuring the safety of the food that is served in school lunches. Parents in many parts of the state have already demonstrated this by coming together through Parent-Teacher Association (PTAs) or other parent groups and demanding safer, pesticide-free school food — and working with school districts to make this happen.

School boards have the most direct impact on each school's specific policy relating to the food served. Each school district is governed by a school board that is accountable for the performance of schools in their district. They are tasked with actively listening to community concerns related to the functioning of schools, including issues related to student health, welfare, safety and security. They can be a good point of pressure from parents and community members who want to ensure school lunch programs are changed.



School district nutrition services or procurement services are key partners when parents want to move food purchasing and food service priorities towards pesticide-free foods. Getting the staff and managers of these divisions on the same page is critical. Parents' groups that are working on school food programs should ensure local farmers and partner vendors are part of their coalition when meeting with these nutrition and procurement divisions in schools.

Some schools have already made the shift

Parents' associations are already fostering community partnerships with farmers, vendors and chefs — always keeping the focus on maintaining the safety of school food, ensuring it's pesticide-free and nutritious. Berkeley Unified School District, Palo Alto Unified School District, Sausalito Marin School District are some of the many school districts that have implemented partial or complete pesticide-free food policies on their campuses.

School lunches are a great place to start shifting toward pesticide-free options, and it doesn't need to break the bank for the district. Conscious Kitchen is one organization that's leading the way. They helped convert a school lunch program in northern California to one that serves "Fresh, Local, Organic, Seasonal" and GMO-free food every meal across the district. They produce meals from scratch at an affordable average cost of \$0.70 per meal for breakfast and \$1.73 per meal for lunch.

Outside organizations like Farm to School can also partner with active PTAs and other parent groups in schools to bring safer food options — such as food grown without pesticides — to individual schools.

For more tips about engaging with policymakers, go to: www.panna.org/hold-leaders-accountable.

2. Change the conversation

Did you know that policymakers read papers as proxies for public opinion? It's true. One well-placed OpEd or Letter to the Editor can cause a decisionmaker to think again.

OpEd columns and letters to the editor give you the opportunity to communicate directly to the public, including influential decisionmakers, and to shape or frame a debate in your own words.

One well-placed OpEd or Letter to the Editor can make a decisionmaker think again. Take a little time to help change the conversation.

Write a Letter to the Editor (LTE)

Keep it short. Respond quickly to the article you've read noting the headline and date it ran. Make your points short and specific. It's better that you edit your own words rather than let the outlet cut what you consider to be your key point.

Be factual but not dull. State important facts that back up your point. Humor helps.

Personalize it. Papers don't want to run standardized, impersonal letters, so add bits of personal or local information to make the piece fit the newspaper.

Timing is everything. Do your best to get the letter in the same day, it will increase your chances of getting published. Send it by email in the body of the text, not as an attachment.

Use alternate forums to respond. Many media outlets have online reader forums and interactive online discussions with reporters. Some news magazine shows encourage viewers to respond while a show is on air, and then read selected emails in real time. These emails should be short, clear and punchy, only a few sentences will be used.

LTE Quick Tips

- ✓ Short, timely and to-the-point.
- ✓ 150 - 200 words.
- ✓ Use alternate forums

LTE Sample #1 - Pesticide drift

October 20, 2015

Protect school children from pesticide drift

Children should be safe from all harm at school, including from being drifted on by pesticides from neighboring farms. However, the California Department of Public Health's 2014 report shows that over 140 highly hazardous pesticides – capable of causing cancer, reproductive and developmental harm and damage to the nervous system – were used in close proximity to public schools, affecting 118,000 students in 15 counties the department studied. The report also found that Latino schoolchildren are 91% more likely than white students to be exposed to the highest levels of hazardous pesticides. All this is simply unacceptable.

California prides itself on being innovative. How about the Department of Pesticide Regulation, the California EPA and others use some of this California can-do spirit and make schools safe for children? Let's get one-mile buffers from highly hazardous pesticides in place around schools. Let's support farmers in transforming these buffer zones into thriving, innovation zones where they farm without toxic pesticides. Let's protect California's children!

LTE sample #2 - Residues on food

October 20, 2015

No pesticides in school lunches, please!

We all know including fruits and vegetables in school lunches is wonderful. But we should go one simple step further. Recent studies have shown that food is a major source of pesticide exposure for kids. Some of these pesticides harm children's brain development, others are hormone disruptors, carcinogens and reproductive toxicants. Let's ensure that fruits and vegetables served in school cafeterias don't have harmful pesticide residues.

Several Minnesota and Wisconsin schools have moved towards healthy and organic lunches. Many private lunch providers for schools have also started prioritizing organic and local foods.

The "Renegade Lunch Lady" chef Ann Cooper has moved thinking about school lunches towards healthier, more diverse menu options, and in some school districts such as Berkeley, pesticide-free food is served whenever possible. The Sausalito-Marin school district in California became the first in the country to serve an all-organic menu to its students, at a very reasonable, affordable cost.

This is crucial and doable. Let's get pesticides out of school lunches!

Write an OpEd

An op-ed is a guest column or essay published in the opinion section of a newspaper (**O**pposite the **E**ditorial page). These carry more weight and authority than letters to the editor.

Start stocking your pantry with the ingredients for your instant OpEd pieces now! You can use essentially the same content and write a number of different OpEds by moving paragraphs, or adding new facts or statistics that freshen it up. Remember, the new part has to be near the beginning, where it “hooks” onto some breaking news event.

OpEd Quick Tips

- ✓ Targeted, timely and to the point.
- ✓ About 700 words.
- ✓ Follow up & try

Learn more about how to change the public conversation about kids and pesticides at www.panna.org/change-the-conversation.

3. Build Community

Small talk matters more than TV ads and billboards. Really. Research tells us that when it comes to making change in the way people think, we are most influenced by friends, family members and people with whom we work, play and worship.

Build buzz on social media

In addition to being a network for sharing news and information with your own contacts, Twitter provides an opportunity to influence how an issue is talked about. Journalists pay attention to Twitter conversations — and so do government officials (or at least their staff). You can share information and influence you community via Facebook too.

Help keep building momentum — online and offline — by sharing the important issues of protecting kids from pesticides with your online community.

For tweets, graphics and blogs to share with your community, go to www.panna.org/healthyschools.



More than 500,000
California children spend their school days within 1/4 mile of pesticide applications.

PAN It's time to stop putting a generation of children at risk.
#StopDrift #ProtectCAKids

Host a house party

Know other parents or neighbors who are passionate about keeping kids healthy? Host a house party and invite them to learn more about the issues at play!

Gathering people together in face-to-face settings is enormously powerful. Hosting a house party with friends, neighbors and colleagues is a great way to deepen understanding of complex issues together, and build community grounded in making a difference.

- ✓ **Share the *Generation in Jeopardy* report** and review Executive Summary for discussion. (We're glad to send you copies of the report.)
- ✓ **Watch a videos from PAN's Healthy Kids You Tube channel** and prep a few questions for discussion.
- ✓ **Host an LTE party**, find articles and support each other writing LTEs to local papers.

And please share your experiences with us — successes and frustrations alike! Email healthykids@panna.org or share with the PAN online community via Facebook and Twitter.

For more resources on hosting a house party, visit www.panna.org/build-community.

Working together, we can influence a range of state government officials and departments to take action to protect school children from pesticide drift and residues on food.

Together, we can do more.