The morning last June began much like hundreds of other mornings had in the grape vineyard of California’s Central Valley for Rosa Sánchez. There was the slowly rising heat, the crisp rustle of leaves, the snatches of conversation as people bent to their work. The grapes grew so thick and tall where Rosa was working that she couldn’t see beyond the row where she was pruning. She had no warning before the wave of pesticides hit.

Suddenly, her throat tightened, her head started pounding, and there was a bitter taste in her mouth. Moments later, she says, she felt like someone had slapped her in the stomach and she vomited. All around her, other farm workers were doing the same.

Investigators would later report that someone in a peach orchard just to the south of the vineyard was spraying a combination of Onager Optek, which kills mites; an insecticide called Reaper Clearform; and Narrow Range 415 Spray Oil, another insecticide.

Authorities say 52 people were exposed and six were taken to the hospital, one of whom was kept overnight for shortness of breath. The orchard company has been fined and is appealing. Rogelina says the current rules governing pesticide use failed to protect her that day.

After the exposure last June, Rosa said she was examined and released from the hospital. Nine months later, she says her mouth is always dry, her hands are often numb, and she has a nagging dry cough. She says her doctor hasn’t been able to explain her symptoms.

*Names have been changed.*
The use of pesticides has been a long-time health risk for farm workers, who are twice as likely to die from pesticide poisoning than workers in other occupations. Crop spraying can cause direct exposure, as can re-entering fields prematurely after the fields have been sprayed. Indirectly, farm workers can be exposed by handling pesticide containers (warning labels of which are still not required to be written in Spanish), contact with pesticide residue and breathing in “pesticide drifts” from neighboring fields. Inadequate training and protective gear, also put farm workers both at immediate risk as well as long-term harm.

Farm workers’ families can also be harmed by these toxins. Farm workers and their families are exposed to pesticides in their homes as many live near fields that have been sprayed. Farm workers can also bring the poisonous pesticides home with them on their clothes, shoes and bodies. Persistent pesticide exposure has been associated with cancer, depression, diabetes, neurodegenerative diseases and reproductive issues. The lack of access to health care exacerbates the health risks farm workers face.

Climate change is expanding pesticide use as well as its harm. As the temperature rises, pests and weeds multiply, requiring heavier use of pesticides. Rising temperatures also can cause pesticides to evaporate more quickly, making additional application required to achieve the same effect. Warmer temperatures can also make some of the pesticides even more toxic. For example, the widely used organophosphate pesticides have been shown to increase the rate of chemical transformation into more toxic compounds.

Heat stress is also a compounding factor for farm workers exposed to pesticides, with the added layers making them more susceptible to pesticides and other toxins. Farm workers can protect themselves from pesticide exposure by using protective clothing but are more vulnerable to heat stress. The essential protective gear that keeps farm workers safe from pesticides can increase the “feels like” temperature by up to 27°F.

Farm workers and environmental justice organizations are leading campaigns to document cases of pesticide exposure, ban the use of some of the most dangerous pesticides that are actively used in this country, and educate others about the danger of pesticide exposure and its effects on farm worker communities.