

## Are the lives of farmworkers worth 14 times less than other Californians? The case of 1,3-D

**“What is the worth of a man or a woman? What is the worth of a farm worker? How do you measure the value of a life?”**

--Cesar Chavez, United Farm Workers President, 1989, a year after his last and longest fast – a protest against pesticide use<sup>1</sup>

**“My students are worth 14 times less than others in California. That’s what DPR [the Department of Pesticide Regulation] is telling us with its 1,3-D regulation.”**

--Melissa Dennis, second grade teacher, Ohlone Elementary School<sup>2</sup>

### Introduction: 1,3-D is not good for me-e-e!

Just over 60 years ago, Rachel Carson’s *Silent Spring* warned the world about the environmental and public health dangers of the pesticide DDT.



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<sup>1</sup> “Address by Cesar Chavez, President United Farm Workers of America, AFL-CIO, Pacific Lutheran University,” March 1989-Tacoma, Washington, <https://ufw.org/cesar-chavez-first-major-address-36-day-1988-fast-pesticide-poisoning-farm-workers-2/>

<sup>2</sup> Sent to author via text on January 14, 2023. Ohlone Elementary School is surrounded by agricultural fields in the Pajaro Valley. Its student population is more than 98% Latino. It is one of six active State pesticide air monitoring sites and has measured 1,3-dichloropropene above the safe harbor level established by the Cal EPA Office of Environmental Health Hazard Assessment (in June 2022) in every year of testing since 2012.

<sup>3</sup> Color print magazine advertisement for Pennsalt DDT products. *Time Magazine*, June 30, 1947.

In short, DDT was not good for me-e-e. Although it took another decade of scientific confirmation and public activism, DDT was eventually banned in California and then throughout the United States.

Carson wrote: “A Who’s Who of pesticides is therefore of concern to us all. If we are going to live so intimately with these chemicals eating and drinking them, taking them into the very marrow of our bones — we had better know something about their nature and their power.”<sup>4</sup>

But what if we did “know something about their nature and their power,” that the information was highly concerning, and that our governments still did not act to protect us?

That is too often the case. There are 72 pesticides that are banned or being phased out in the European Union that are allowed for use in the US.<sup>5</sup> One such example is the fumigant pesticide 1,3-dichloropropene, also known as 1,3-D, most often encountered with the brand name Telone. It is a pre-plant soil sterilizer used on a wide range of crops, notably almonds in the Central Valley and strawberries on the Central Coast of California.

1,3-D is the third most used pesticide in California, annually exceeding 12 million pounds, and is a cancer threat to farmworker communities<sup>6</sup>:

- 1,3-D is a California Prop 65-listed cancer-causing chemical and Toxic Air Contaminant.
- 1,3-D is banned in 34 countries, but not in the US.
- 1,3-D was disallowed in California between 1990 and 1995, after high air concentration readings in the Central Valley.
- 1,3-D can drift for miles at harmful levels. One of the highest levels ever recorded -- at an elementary school in Shafter in 2020 -- likely came from a 1,3-D application more than 7 miles away.
- 10 times the amount of 1,3-D per person is applied in the 11 California counties with majority Latino populations as compared to the 25 counties with the lowest Latino populations (less than 24%) – 1.31 pounds/person versus 0.13 pounds per person. The two groups of counties are similar in combined total area.
- Cal EPA’s Office of Environmental Health Hazard Assessment (OEHHA) determined the “safe harbor level” -- or lifetime cancer risk level – for 1,3-D to be 3.7 micrograms per day, the equivalent of breathing air that has 1,3-D concentrations of 0.04 parts per billion (ppb). Average levels above 0.04 ppb, exceed the 1,3-D lifetime cancer risk level.
- At all 9 State pesticide air monitors operating for at least 2 years since 2011, the average air concentration of 1,3-D has exceeded the safe harbor level established by OEHHA of 0.04 ppb. Five of the air monitors are at public schools.

Indeed, we know something about the nature and power of 1,3-D. Yet, the State body in charge of regulating 1,3-D, the California Department of Pesticide Regulation (DPR), has proposed a policy<sup>7</sup> grounded in toxicity assumptions that 1,3-D is 14 times less potent than the official safe harbor level set by OEHHA. The DPR assumptions are similar, if not identical, to those put

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<sup>4</sup> *Silent Spring* (1962), p. 17 (Mariner Books, 2002 edition).

<sup>5</sup> ‘Protect America’s Children from Toxic Pesticides Act’ bill authored by Senator Cory Booker, <https://www.booker.senate.gov/imo/media/doc/PACTPA%202021.pdf>

<sup>6</sup> Details and citations for the bullet-points below will be given later in the paper.

<sup>7</sup> <https://www.cdpr.ca.gov/docs/legbills/rulepkgs/22-005/22-005.htm>

forward by 1,3-D's primary manufacturer, Dow Chemical.<sup>8</sup> The result could be a regulation that allows for even more 1,3-D use than is currently applied, compounding rather than reducing the cancer threat in farmworker communities.

DPR's regulation, as proposed, will fall far short of protecting fieldworkers and other rural residents from harmful levels of exposure to this cancer-causing and highly drift prone soil fumigant because:

- 1) The rule is not designed to control 1,3-D use and emissions to the level recommended by the OEHHA for cancer risk control;
- 2) Farmworkers and other outdoor workers are excluded from the regulation, leaving them unprotected and allowed to work at the very edge of fumigated fields, *even during fumigation*;
- 3) The proposed measures intended to reduce emissions will be difficult to enforce;
- 4) The use cap, and the requirement to keep a running total of 1,3-D use and prohibit further applications when the use cap has been reached, have been eliminated;
- 5) There is no required timeline for completion of an annual report on 1,3-D use, air monitoring levels and potential need for increased mitigations.

After a more detailed review of 1,3-D's cancer risk, this paper will explore possible explanations for why two branches of the California Environmental Protection Agency (Cal EPA) – OEHHA and DPR – could reach conclusions about 1,3-D's toxicity that differ so widely -- by a factor of 14.

## 1,3-D causes cancer

### What is 1,3-D?

First registered in 1954 in the US and in 1970 in California, 1,3-dichloropropene or 1,3-D is a fumigant used to control nematodes by sterilizing the soil prior to planting. The pesticide is a colorless to straw-colored liquid with a sharp, sweet, irritating odor. It is manufactured by Salt Lake Holding LLC, a wholly owned subsidiary of Dow Chemical. 1,3-D is the third most heavily used pesticide in California (12.5 million pounds in 2018 - twice as much as in 2009), according to DPR Pesticide Use Reports.<sup>9</sup> 1,3-D is used on 47 different California crops, including almonds (3.5 million pounds in 2018), strawberries (1.2 million), and hundreds of thousands of pounds on fields for sweet potatoes, walnuts, carrots, grapes, and wine grapes.<sup>10</sup>

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<sup>8</sup> The current corporate name of the manufacturer of Telone II is Salt Lake Holding LLC, which is a wholly owned subsidiary of the Dow Chemical Company.

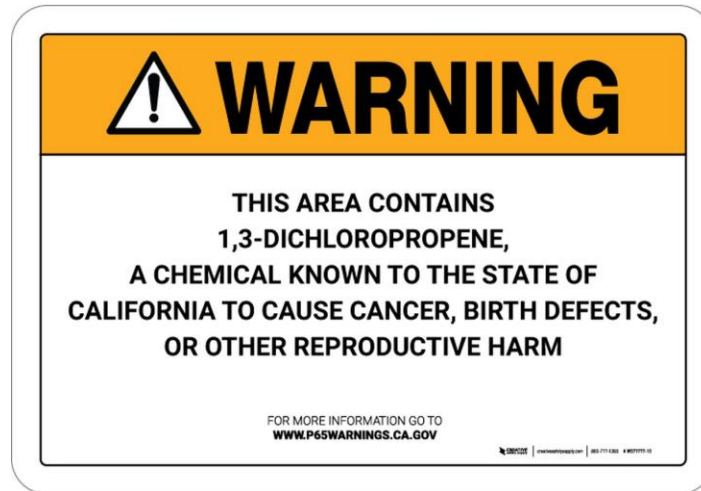
<sup>9</sup> The most recent available year is 2018.

[https://www.cdpr.ca.gov/docs/pur/pur18rep/pur\\_data\\_summary\\_2018.pdf](https://www.cdpr.ca.gov/docs/pur/pur18rep/pur_data_summary_2018.pdf)

<sup>10</sup> Compiled from [https://www.cdpr.ca.gov/docs/pur/pur18rep/pur\\_data/pur\\_2018\\_statewide\\_chemical.pdf](https://www.cdpr.ca.gov/docs/pur/pur18rep/pur_data/pur_2018_statewide_chemical.pdf)

## Officially listed as a carcinogen

Three years after California voters overwhelmingly passed Prop 65 in 1986, the Cal EPA's Office of Environmental Health Hazard Assessment (OEHHA) officially listed 1,3-D as a carcinogen.



Prop 65 states<sup>11</sup>: "[N]o person in the course of doing business shall knowingly discharge or release a chemical known to the state to cause cancer or reproductive toxicity into water" or anywhere that feeds a drinking water source. The Act also states that "no person in the course of doing business shall knowingly and intentionally expose" anyone to those chemicals "without first giving clear and reasonable warning."<sup>12</sup>

Part of OEHHA's administration of Prop 65 is keeping and updating the "Safe Harbor List" with tolerance thresholds for some of the Prop 65-listed chemicals. OEHHA calculates its safe harbor level or "no significant risk level" (NSRL) based upon the daily exposure to the chemical that keeps cancer risk below 1 in 100,000 lives. After a scientific review and public comment process -- extended at the request of Dow Chemical -- on June 21, 2022, OEHHA announced an NSRL exposure threshold to 1,3-D of 3.7 micrograms per day, effective October 1, 2022. In more familiar units, this is an average air concentration of 0.04 parts per billion.<sup>13</sup>

### **Dow Chemical and DPR: Allow for 14 times more 1,3-D in the air than OEHHA's safe harbor level**

During the public comment period for the establishment of the 1,3-D safe harbor level, the fumigant's manufacturer, Dow Chemical, pushed for a tolerance threshold allowing for 14 times higher exposure to 1,3-D. Dow called for 50 micrograms per day, the equivalent of breathing an

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<sup>11</sup> The Safe Drinking Water and Toxic Enforcement Act of 1986, codified at Health and Safety Code section 25249.5 et. seq., hereafter referred to as "Prop 65" or "The Act".

<sup>12</sup> The DPR is currently planning a statewide pesticide notification system, which may provide accessible information about upcoming applications of 1,3-D and other pesticides. Otherwise, the public has no way of being warned about applications of 1,3-D.

<sup>13</sup> To convert daily exposures in micrograms to air concentrations in parts per billion, we used the following equation: Air concentration (ppb) = [[daily exposure (micrograms)]/[breathing rate of 19.6 liters per day]]\*.216 (conversion factor based on molecular weight). 1,3-D's molecular weight is 111.

air concentration of 0.56 part per billion per day. This is also DPR's current target concentration. Dow argued essentially that OEHHA considered too many scientific studies, specifically studies that included inhalation as well as oral exposure to 1,3-D. Dow said that 1,3-D was originally listed as a carcinogen based on oral exposure only, thus the NSRL should be established in the same manner.

OEHHA responded that scientific study should not exclude evidence that multiple routes of 1,3-D exposure can cause cancer:

[T]he listing for 1,3-dichloropropene is not limited with respect to route of exposure, there is no qualifier specifying a route of exposure. Thus, it is not appropriate to exclude studies in which animals were exposed via inhalation in developing the NSRL(s). Furthermore, 1,3-dichloropropene induces tumors in animals when administered via inhalation, gavage, and diet. It would not be scientifically justifiable to ignore sensitive studies of sufficient quality in which tumors were observed based on the route or pathway of administration ... OEHHA disagrees with the commenter, and finds it would not be scientifically appropriate to set an NSRL of 50 µg/day or higher.<sup>14</sup>

However, despite losing the argument with OEHHA, Dow's "safe" level of 0.56 parts per billion remains the current regulatory target for 1,3-D, as well as that of DPR's draft regulation. In 2008, Dow had requested that DPR do away with exceptions to a 1,3-D regulatory system that had capped annual 1,3-D use at 90,250 pounds within 6 x 6 mile squares called "townships," since 1995.<sup>15</sup> The exceptions had led to much bad press, so instead, Dow pushed for a new 1,3-D use cap of 135,375 township pounds per year.<sup>16</sup> In 2016, DPR redesigned its 1,3-D "risk management directive" based upon a newly calculated 0.56 parts per billion threshold concentration together with a new township cap of 136,000 pounds – nearly identical to what Dow had requested eight years before.<sup>17</sup> The headline to Bernice Yeung's 2016 investigative article summed it up: "CA boasted of tighter pesticide rules. But Dow got what it wanted." Notably, DPR's proposed regulation for 1,3-D eliminates the use cap altogether, allowing for even greater use.

Given that OEHHA's NSRL for 1,3-D of 0.04 parts per billion was announced in June 2022, why did DPR not include it in the 32 "Documents Relied Upon"<sup>18</sup> in drafting its proposed regulation of November 15, 2022, despite referring to 22 documents dated *after* OEHHA's announcement?

To date, we are aware of two responses from DPR, regarding OEHHA's NSRL for 1,3-D. During the public comment period for the draft regulation, the Monterey Bay Air Resources District asked:

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<sup>14</sup> "Final Statement of Reasons: 1,3-Dichloropropene; Proposition 65 Safe Harbors," p. 11. Dow's questions and OEHHA's responses were much more detailed. Please see pages 9-15 for fuller account.

<https://oehha.ca.gov/media/downloads/cnr/13-dnsrlsforfinalremediated.pdf>

<sup>15</sup> Internal DPR letter, January 29, 2009:

[https://www.cdpr.ca.gov/docs/emon/pubs/ehapreps/analysis\\_memos/4327\\_sanders.pdf](https://www.cdpr.ca.gov/docs/emon/pubs/ehapreps/analysis_memos/4327_sanders.pdf)

<sup>16</sup> <https://revealnews.org/blog/ca-boasted-of-tighter-pesticide-rules-but-dow-got-what-it-wanted/>

<sup>17</sup> The 1,3-D risk management directive has apparently been removed from the DPR website. However, one can find reference to its grounding in 0.56 ppb air concentration and 136,000 pound annual township cap through OEHHA's September 20, 2016 critique of the directive at

<https://oehha.ca.gov/media/downloads/pesticides/document-comment/13dtelone10102016.pdf>

<sup>18</sup> The documents are listed here: <https://www.cdpr.ca.gov/docs/legbills/rulepkgs/22-005/22-005.htm>

OEHHA recently adopted a No Significant Risk Level of 3.7 µg/day for exposure by the oral and inhalation routes for Proposition 65 warnings for exposure to chemicals which are cancer causing. Why does DPR use a different cancer potency value from what OEHHA has documented? Does this difference result in a less conservative estimate of cancer risk?

DPR's response is condensed here:

Response (from DPR) : This comment is outside of the scope of consultation under FAC section 14024, which requires DPR to consult on whether the regulations reduce exposure to DPR's regulatory target concentrations ... OEHHA established the no significant risk level (NSRL) for 1,3-D through an independent regulatory process to provide compliance assistance for Proposition 65. NSRLs are safe harbor warning levels, not use restrictions or regulatory targets.<sup>19</sup>

DPR's is a bureaucratic response not a scientific one: We didn't use the OEHHA figure because we didn't have to.

At the November 18, 2022 Pesticide Registration and Evaluation Committee (PREC), after their presentation entitled "An Overview of the Proposed 1,3-Dichloropropene Regulation," DPR staff was asked by Californians for Pesticide Reform staff and gave a similar bureaucratic response:

Why was the June 2022 OEHHA 1,3-D Safe Harbor Level not used in calculation of the lifetime cancer risk level for this draft regulation? The OEHHA NSRL converts to 0.04ppb, 14 times below DPR's 0.56ppb (from 2016). Do you plan to go before farmworker communities and tell them DPR's regulation is sufficient to protect them when another branch of CalEPA indicates it is 14 times too weak?

DPR responded:

For this meeting, I will be answering the technical questions in clarification for this presentation. I would really appreciate if these questions would be submitted to the rule-making process. We also have a record of this portion and we will answer those through our public hearings.<sup>20</sup>

DPR leadership's apparent desire to ignore and resist science that indicates pesticide use must be reduced may be due in part to a dependence on the continued use of pesticides. The dependence is direct; DPR's budget is funded largely by fees from pesticide sales. "The Department receives a majority of its resources through the DPR Fund—80% of which is derived from the mill assessment that is levied on the sale of registered pesticides at the point of first sale into the state."<sup>21</sup>

Which branch of CalEPA should community members listen to? CalEPA's expert risk assessment branch? Or CalEPA's department that is mostly funded by pesticide sales?

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<sup>19</sup> [https://www.cdpr.ca.gov/docs/legbills/rulepkgs/22-005/dpr\\_22-005\\_8\\_tacwg.pdf](https://www.cdpr.ca.gov/docs/legbills/rulepkgs/22-005/dpr_22-005_8_tacwg.pdf), p. 18.

<sup>20</sup> Quoted from a video disc recorded by DPR. DPR staff was Maziar Kandelous and California Pesticide Reform staff was Mark Weller. The minutes can be found at

<https://www.cdpr.ca.gov/docs/dept/prec/2022/111822minutes.pdf>

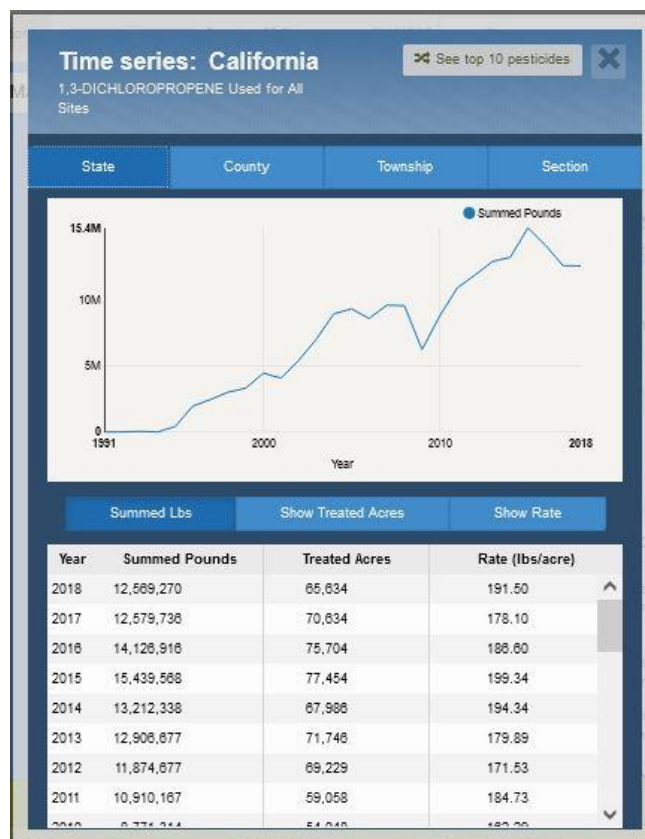
<sup>21</sup> [https://www.cdpr.ca.gov/docs/mill/mill\\_assessment\\_study.htm](https://www.cdpr.ca.gov/docs/mill/mill_assessment_study.htm)

## 1,3-D is banned in 34 other countries

1,3-D is considered so dangerous to people, animals, and the environment that it is banned or not approved for use in the following 34 countries: Belize, Saudi Arabia, Serbia, Sri Lanka, Switzerland, Turkey, the United Kingdom and the 27 countries of the European Union.<sup>22</sup> In fact, the European Union has never approved 1,3-D. The European Food Safety Authority (EFSA) concluded in 2006 that 1,3-D causes genetic damage. Its 2018 updated assessment also concluded that 1,3-D presented an unacceptable risk to non-target arthropods and to groundwater. On this basis, the European Commission and Member States rejected a 2022 request for EU approval.<sup>23</sup>

## Who is most impacted? Latino farmworker communities

While much of the rest of the world is banning 1,3-D, California growers are using more and more of it. First surpassing the 10-million-pound mark in 2011, pesticide applicators have never looked back. See the graph of the historical use pattern below, a screenshot from the California Department of Public Health's Pesticide Mapping Tool<sup>24</sup>:



<sup>22</sup> <https://pan-international.org/pan-international-consolidated-list-of-banned-pesticides/>

<sup>23</sup> [https://www.pan-europe.info/sites/pan-europe.info/files/public/resources/reports/Report\\_Banned%20pesticides%20still%20widely%20used%202023.pdf](https://www.pan-europe.info/sites/pan-europe.info/files/public/resources/reports/Report_Banned%20pesticides%20still%20widely%20used%202023.pdf), p. 22.

<sup>24</sup> <https://trackingcalifornia.org/pesticides/pesticide-mapping-tool>

The graph documents the period between 1990 and 1995 in which 1,3-D was disallowed in California after extremely high air concentrations at a Merced middle school.<sup>25</sup> One can see 1,3-D use has trended rapidly upward ever since.

1,3-D applications have been increasing, but where? Its use is concentrated in Latino farmworker communities.

According to the most recent US and California government data, an average person in the eleven California counties with a majority Latino population as compared to the twenty-five counties with the smallest Latino proportions (less than 24% -- those who live in the 11 most Latino counties are 3 times as likely to be Latino)<sup>26</sup> lives where there is ten times more carcinogenic 1,3-dichloropropene applied per person. The two groups of counties are similar in combined total area.<sup>27</sup>

See the next page for the comparison tables.



<sup>25</sup> <https://revealnews.org/article/californias-strawberry-industry-is-hooked-on-dangerous-pesticides/>

<sup>26</sup> The cutoff point for the least Latinx counties was determined by a roughly equivalent total population size to the most Latino counties. Had only the 11 least Latino counties been compared, that would have accounted for a mere population of 611,744.

<sup>27</sup> The area of the two county groups is similar. 54,429 square miles for the majority Latino counties versus 58,510 square miles for the others. <http://www.usa.com/rank/california-state--land-area--county-rank.htm>



### 1,3-D in California's Majority Latino Counties

County	% Latino <sup>28</sup>	Total Population, All Races <sup>29</sup>	1,3-D (pounds in 2018) <sup>30</sup>
Imperial	84.6	181,215	523,040
Tulare	65.2	466,195	948,243
San Benito	60.6	62,808	32,402
Colusa	60.3	21,547	48,031
Merced	60.2	277,680	1,044,732
Monterey	59.1	464,061	488,919
Madera	58.3	157,327	655,448
Kings	55.0	152,940	250,937
Kern	54.0	900,202	1,899,941
San Bernardino	54.0	2,180,085	0
Fresno	53.5	999,101	1,783,127
<b>Totals</b>	<b>&gt; 50% Latino</b>	<b>5,863,161</b>	<b>7,674,820</b>
<b>Per Person</b>		<b>1</b>	<b>1.31</b>

#### Comparison of 1,3-D use:

- Majority Latino Counties: 1.31 pounds/person
- Less than 24% Latino: 0.13 pounds/person

**Majority Latino Counties have 9.76 times more 1,3-D applied per person than the 25 counties with Latino populations below 24%.**

### in California's Least Latino Counties (less than 24%)

County	% Latino <sup>31</sup>	Total Population, All Races <sup>32</sup>	1,3-D (pounds in 2018) <sup>30</sup>
Sacramento	23.4	1,552,058	95,495
San Luis Obispo	22.8	283,111	242,792
Inyo	22.7	18,039	0
Alameda	22.4	1,671,329	0
Lake	21.3	64,386	963
Del Norte	20.0	27,812	92,456
Lassen	19.2	30,573	0
Butte	16.7	219,186	274,528
Marin	16.1	258,826	0
San Francisco	15.2	881,549	0
Amador	14.4	39,752	0
Placer	14.3	398,329	56,662
Modoc	14.2	8,841	29,552
El Dorado	12.9	192,843	0
Siskiyou	12.9	43,539	45,102
Tuolumne	12.7	54,478	0
Calaveras	12.4	45,905	0
Sierra	12.1	3,005	0
Humboldt	11.8	135,558	0
Mariposa	11.6	17,203	0
Alpine	11.4	1,129	0
Shasta	10.3	180,080	1,488
Nevada	9.7	99,755	0
Plumas	9.2	18,807	0
Trinity	7.5	12,285	0
<b>Totals</b>		<b>6,258,378</b>	<b>839,038</b>
<b>Per Person</b>		<b>1</b>	<b>0.13</b>

DPR has been running a pesticide air monitoring network in farmworker communities that indicates at all nine stations that tested 1,3-D in the air for more than two years, the average air concentrations were above OEHHA's 0.04 parts per billion safe harbor level. Schools have been the sites for five of these air monitor testing stations.

<sup>28</sup> <https://www.indexmundi.com/facts/united-states/quick-facts/california/hispanic-or-latino-population-percentage#table>

<sup>29</sup> [https://www.california-demographics.com/counties\\_by\\_population](https://www.california-demographics.com/counties_by_population)

<sup>30</sup> <https://trackingcalifornia.org/pesticides/pesticide-mapping-tool>

<sup>31</sup> <https://www.indexmundi.com/facts/united-states/quick-facts/california/hispanic-or-latino-population-percentage#table>

<sup>32</sup> [https://www.california-demographics.com/counties\\_by\\_population](https://www.california-demographics.com/counties_by_population)

While the air monitors were placed near fields, some of the readings came from applications miles away. A one-day January 2020 spike of 20.8 parts per billion at Sequoia Elementary in Shafter originated from a 1,3-D application 7.5 miles away, according to DPR.<sup>33</sup> 1,3-D can drift for miles at harmful levels.

**TABLE. 1,3-dichloropropene air concentrations are above OEHHA’s 0.04 ppb NSRL for lifetime cancer risk at all 9 air monitor stations that tested for more than 2 years**

Site	County	Annual air concentration of 1,3-dichloropropene in parts per billion, reported by DPR											
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Ave.
Kearney Ag, Parlier <sup>34</sup>	Fresno	*	*	*	*	*	*	0.62	2.94	0.27	0.51	1.55	1.16
Shafter High, Sequoia Elem-2/19 <sup>34</sup>	Kern	0.23	0.08	0.57	0.2	0.18	0.34	0.11	1.52	0.13	1.8	0.16	0.49
Schendel Elementary, Delhi <sup>34</sup>	Merced	*	*	*	*	*	*	0.13	.019	0.15	0.46	0.68	0.32
Ohlone Elementary-north <sup>34</sup>	Monterey	*	0.16	0.13	0.09	0.12	0.07	0.09	0.05	0.06	0.12	0.06	0.10
Salinas Airport <sup>35</sup>	Monterey	0.30	0.06	0.09	0.01	0.04	0.04	*	*	*	*	*	0.09
Chualar-east well <sup>36</sup>	Monterey	*	*	*	*	*	*	0.10	0.03	0.04	*	*	0.06
Ripon Police <sup>37</sup>	San Joaquin	0.31	0.05	0.19	0.07	0.08	0.09	*	*	*	*	*	0.13
Santa Maria High, Bonita Elm-11/19 <sup>34</sup>	Santa Barbara	0.16	0.19	0.19	0.11	0.11	0.12	0.08	0.06	0.05	0.11	0.08	0.12
Rio Mesa High, Oxnard <sup>34</sup>	Ventura	*	0.19	0.17	0.09	0.21	0.11	0.11	0.06	0.06	*	0.03	0.12

\* No testing

Under Food and Agriculture Code sections 12980 and 12981, DPR is required to work in concert with OEHHA on regulations that affect workers. There is no such requirement for regulations that focus on non-occupational exposure. DPR’s proposed 1,3-D regulation is expressly designed to protect residential bystanders only, and excludes farmworkers who work

<sup>33</sup> <https://www.pesticide-reform.org/wp-content/uploads/2021/09/202109-CPR-Telone-Shafter-ENGv1.pdf>; also DPR’s Minh Pham “A summary of notable detections at Shafter AMN site in 2020” not available on DPR’s website.

<sup>34</sup> DPR presentation to Pesticide Registration and Evaluation Committee, “2021 1,3-D Ambient Air Monitoring Results,” slide 29.

<sup>35</sup> “Air Monitoring Network Report: A Comprehensive Evaluation of Results (2011 – 2016),” DPR, June 2018, p. 38.

<sup>36</sup> DPR presentation to the Pesticide Registration Evaluation Committee, “2019 1,3 D Ambient Air Monitoring Results,” slide 29.

<sup>37</sup> “Air Monitoring Network Report: A Comprehensive Evaluation of Results (2011 – 2016),” DPR, June 2018, p. 42.

around treated fields from its scope. In order to ignore OEHHA's far more health-protective cancer risk level, DPR has cynically excluded workers from the regulation.

The exclusion of workers from the regulation required some extraordinary contortions:

- DPR's 2015 Risk Characterization Document (RCD) includes estimates of worker bystander exposure and risk, and identifies exposures of concern.
- The Risk Management Directive (RMD) for 1,3-D cancer risk includes occupational bystanders in the scope to be addressed in mitigations.
- The Township Cap Program that this regulation is intended to replace was designed to control area air levels of 1,3-D to protect both residents and farmworkers.

*DPR is willfully omitting farmworkers in the draft regulation in order to enable continued high levels of 1,3-D use.*

Greenfield City Councilmember Yanelly Martinez recently asked:

Do you think you or your kids are 14 times less valuable than other Californians? I'm asking because that is what the California Department of Pesticide Regulation (DPR) is effectively telling people like me — who live in farmworker communities — with their proposed policy on the cancer-causing pesticide 1,3-dichloropropene (aka 1,3-D or brand name Telone).

In her op-ed, Ms. Martinez reviews the comparison between the 1,3-D safe levels of DPR and OEHHA, concluding that if DPR's proposal goes forward:

The effect will be devastating and racist, allowing for 14 times more cancers in communities where 1,3-D is applied than in those where it isn't. Farmworker communities, like mine in Greenfield, are overwhelmingly Latino.

She concludes:

DPR states: "Treating people fairly guides how DPR conducts its activities. Fair treatment means that no one group of people, including racial, ethnic, or socioeconomic groups, should be disproportionately impacted by pesticides." Yet DPR proposes that my community, our farmworker communities, should get 14 times less protections from cancer from 1.3-D than other Californians ... We are NOT worth 14 times less.<sup>38</sup>

We can't have two sets of sciences: one for farmworker communities and another for other Californians.

Much needs to change in order for farmworker communities to get fair treatment regarding pesticide harms.

Our hope is that California can make initial small steps in that direction by following the science of our State toxicologists at OEHHA in determining safety thresholds to guide 1,3-D regulations

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<sup>38</sup> <https://www.santacruzsentinel.com/2023/01/12/guest-commentary-department-of-pesticide-regulations-proposed-policy-hazardous-on-cancer-causing-pesticide-13-d/>

rather than the claims of the manufacturer or the pesticide regulator whose existence is dependent upon pesticide sales.