

**Table 1.** Top 100 pesticides used on agricultural crops within 7 miles of Shafter during 2013-2017. Four pesticide groups of interest are indicated. Oils and adjuvants generally have lower risk. Fumigants and organophosphates (OPs) generally have higher risk. Toxic air contaminants are pesticides on DPR's TAC list. Restricted materials have higher health or environmental risk and require a permit from the county agricultural commissioner, and notice of intent (NOI) prior to application. Prop 65 indicates if the pesticide is listed under Proposition 65 as causing cancer or developmental effects.

Rank of Pounds Used	Pesticide	Number of Applications Annual Avg	Pounds Used Annual Avg	Group	Toxic Air Contaminant	Restricted Material	Proposition 65
1	MINERAL OIL	933	837,419	Oil			
2	PETROLEUM OIL, UNCLASSIFIED	493	795,875	Oil			
3	1,3-DICHLOROPROPENE	31	244,616	Fumigant	✓	✓	Cancer
4	SULFUR	988	228,710				
5	GLYPHOSATE, POTASSIUM SALT	1,558	181,833				Cancer
6	POTASSIUM N-METHYLDITHIOCARBAMATE (MITC)	7	86,314	Fumigant	✓	✓	
7	ALPHA-(PARA-NONYLPHENYL)-OMEGA-HYDROXPOLY(OXYETHYLENE)	2,378	56,556	Adjuvant			
8	PARAQUAT DICHLORIDE	1,081	54,947			✓	
9	GLYPHOSATE, ISOPROPYLAMINE SALT	490	46,136				Cancer
10	METHYLATED SOYBEAN OIL	1,178	43,572	Adjuvant			
11	PENDIMETHALIN	371	34,212				
12	AMMONIUM SULFATE	817	27,988	Adjuvant			
13	CHLOROTHALONIL	129	22,943				Cancer
14	LIME-SULFUR	19	21,889				
15	CHLORPYRIFOS	197	21,273	OP	✓	✓	Developmental
16	CHLOROPICRIN	8	20,337	Fumigant	✓	✓	
17	ZIRAM	38	20,285				
18	PETROLEUM OIL, PARAFFIN BASED	178	19,784	Oil			
19	FATTY ACIDS, C16-C18 AND C18-UNSATURATED, METHYL ESTERS	550	18,179	Adjuvant			
20	OXYFLUORFEN	1,019	17,860				
21	OLEIC ACID, METHYL ESTER	279	16,264	Oil			
22	GLUFOSINATE-AMMONIUM	445	16,021				
23	HYDROGEN CYANAMIDE	21	15,178				
24	PETROLEUM DISTILLATES, REFINED	4	12,355	Oil			
25	BIFENAZATE	227	11,107				
26	KAOLIN	8	10,641				
27	METHYL BROMIDE	2	9,515	Fumigant	✓	✓	
28	METAM-SODIUM (MITC)	4	8,703	Fumigant	✓	✓	
29	METHOXYFENOZIDE	336	8,558				
30	COPPER HYDROXIDE	178	8,183				

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31	PROPARGITE	33	7,924				Cancer, Dev
32	POTASSIUM PHOSPHITE	73	7,355				
33	CYPRODINIL	325	6,729				
34	4-NONYLPHENOL, FORMALDEHYDE RESIN, PROPOXYLATED	644	6,484	Adjuvant			
35	COPPER OXYCHLORIDE	100	6,241				
36	DIMETHYLPOLYSILOXANE	1,085	5,749	Adjuvant			
37	SODIUM CHLORATE	21	5,464				
38	ORYZALIN	43	5,397				Cancer
39	N,N-BIS-(2-OMEGA-HYDROXPOLY(OXYETHYLENE)ETHYL) ALKYLAMINE, ALKYL DERIVED FROM TALLOW FATTY ACIDS	801	5,293	Adjuvant			
40	LECITHIN	340	5,280	Adjuvant			
41	PETROLEUM DISTILLATES, AROMATIC	72	5,245	Oil			
42	ISOPROPYL ALCOHOL	450	4,768				
43	PROPYLENE GLYCOL	234	4,707	Adjuvant			
44	PHOSPHORIC ACID	414	4,652				
45	CITRIC ACID	580	4,469				
46	TALL OIL FATTY ACIDS	479	4,366	Adjuvant			
47	COPPER SULFATE (BASIC)	77	4,312				
48	SETHOXYDIM	204	4,094				
49	IPRODIONE	133	4,056				Cancer
50	BUPROFEZIN	85	3,923				
51	ALPHA-UNDECYL-OMEGA-HYDROXPOLY(OXYETHYLENE)	235	3,522	Adjuvant			
52	UREA DIHYDROGEN SULFATE	41	3,424				
53	POLYBUTENES	551	3,315				
54	BIFENTHRIN	265	3,301				
55	ALPHA-(PARA-NONYLPHENYL)-OMEGA-HYDROXPOLY(OXYETHYLENE), PHOSPHATE ESTER	516	3,242	Adjuvant			
56	CRYOLITE	12	3,104				
57	AMMONIUM PROPIONATE	333	3,056	Adjuvant			
58	CHLORANTRANILIPROLE	403	2,949				
59	METCONAZOLE	343	2,861				
60	HYDROTREATED PARAFFINIC SOLVENT	65	2,851	Oil			
61	METHYL ESTERS OF COTTONSEED OIL	52	2,793	Adjuvant			
62	MANCOZEB	32	2,754		✓		Cancer
63	CALCIUM HYDROXIDE	2	2,721	Adjuvant			
64	ALPHA-ALKYL (C9-C16)-OMEGA-HYDROXPOLY(OXYETHYLENE)	203	2,687	Adjuvant			
65	ALPHA-ALKYL (C9-C11)-OMEGA-HYDROXPOLY(OXYETHYLENE)	450	2,661	Adjuvant			

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66	FATTY ACIDS, METHYL ESTERS	50	2,646	Adjuvant			
67	PENTHIOPYRAD	123	2,612				
68	SPIRODICLOFEN	35	2,585				Cancer
69	ETOXAZOLE	303	2,502				
70	MODIFIED PHTHALIC GLYCEROL ALKYD RESIN	274	2,438	Adjuvant			
71	EPTC	15	2,433				
72	BUTYL ALCOHOL	421	2,262				
73	GLYCEROL	103	2,240	Adjuvant			
74	ALPHA-ALKYLARYL-OMEGA-HYDROXPOLY(OXYETHYLENE)	16	2,195	Adjuvant			
75	FLUOPYRAM	274	2,104				
76	CYFLUMETOFEN	171	2,096				
77	DODINE	28	2,094				
78	HEXYTHIAZOX	113	2,075				
79	FENPYROXIMATE	184	2,019				
80	PYRACLOSTROBIN	278	1,947				
81	ALPHA-PINENE BETA-PINENE COPOLYMER	115	1,893	Adjuvant			
82	BOSCALID	167	1,859				
83	PROPIONIC ACID	99	1,776				
84	ETHEPHON	57	1,761	OP			
85	LINURON	38	1,733				Developmental
86	FATTY ACIDS, MIXED	284	1,671	Adjuvant			
87	TEBUCONAZOLE	232	1,662				
88	S-METOLACHLOR	22	1,626				
89	2-(3-HYDROXYPROPYL)-HEPTA-METHYL TRISILOXANE, ETHOXYLATED, ACETATE	100	1,619	Adjuvant			
90	DIETHYLENE GLYCOL	240	1,555				
91	IMIDACLOPRID	99	1,500				
92	POTASSIUM BICARBONATE	9	1,410				
93	CLOFENTEZINE	81	1,410				
94	SAFLUFENACIL	521	1,393				
95	PYRIMETHANIL	93	1,390				
96	METHOMYL	30	1,314			✓	
97	DIFENOCONAZOLE	100	1,301				
98	BACILLUS THURINGIENSIS, SUBSP. KURSTAKI, STRAIN ABTS-351, FERMENTATION SOLIDS AND SOLUBLES	25	1,256				
99	POLYOXIN D, ZINC SALT	321	1,243				
100	TRIFLOXYSTROBIN	198	1,208				

**Department of Pesticide Regulation Responses to Shafter AB 617 Steering Community’s Proposed Measures Regarding Pesticides  
for the Community Emission Reduction Plan**

#	Proposed Measure	DPR’s Response
1	Ban all untarped applications of 1,3-D (very important for Shafter where 1,3-d is the primary pesticide TAC problem)	<p align="center"><i>Response on Proposed Measures 1 and 2:</i></p> <p><i>The Department of Pesticide Regulation (DPR) is working on a regulation to further reduce exposures to 1,3-Dichloropropene (1,3-D). This includes development of measures to reduce short-term (acute) exposures and reassessing the township cap to address cancer risk.</i></p> <p><i>Since 1,3-D is a toxic air contaminant (TAC), DPR must follow the legal process as described in DPR’s Response to Proposed Measures 4 – 7 listed below.</i></p>
2	Reduce 1,3-d annual township cap (the cap is currently 136,000 pounds per 6x6 mile township) and/or establish cap reductions on a more granular basis to address 1,3-d spikes we see in certain sections.	

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3	<p>Make Notices of Intent (NOIs), required for restricted pesticide applications, publicly available online, along with CAC approvals/denials of these NOIs.</p>	<p><i>Regulations for most restricted materials require a Notice of Intent (NOI) to be submitted to the local county agricultural commissioner (CAC) at least 24 hours prior to application and allow for a 5-day window to begin the application. A NOI must be resubmitted if the application does not begin within the 5-day window. Additionally, an application may take more than one day to complete. CACs do not receive confirmation that an application has occurred until the pesticide use report is submitted, which the grower can submit up to the 10<sup>th</sup> of the following month.</i></p> <p><i>Moreover, the NOI may not provide all of the information desired. This is because the NOI identifies the product(s) that will be applied, not the active ingredient(s) in the product. In addition, the location of an application may be unclear without additional information.</i></p> <p><i>Another consideration is the large number of NOIs that would need to be posted online. As shown in Table 1, of the top 100 pesticides used within seven miles of Shafter during 2013-2017, eight are restricted materials, with an average of 1,359 applications each year.</i></p> <ul style="list-style-type: none"> <li><i>• 1,3-Dichloropropene: average of 31 applications each year</i></li> <li><i>• Potassium N-methyldithiocarbamate (MITC): average of 7 applications each year</i></li> <li><i>• Paraquat dichloride: average of 1,081 each year</i></li> <li><i>• Chlorpyrifos: average of 197 applications each year</i></li> <li><i>• Chloropicrin: average of 8 applications each year</i></li> <li><i>• Methyl bromide: average of 2 applications each year</i></li> <li><i>• Metam-sodium (MITC): average of 4 applications each year</i></li> <li><i>• Methomyl: average of 30 applications each year</i></li> </ul> <p><i>Unless the proposal is limited to restricted materials, a regulation would be required because currently the CAC only receives NOIs for restricted materials.</i></p> <p><i>Lastly, a relatively low percentage of Kern illness/drift incidents are from the public or residents. Most occur to field workers during the course of their work. The Kern CAC’s current grower-to-grower notification system (the only one in the country) serves to address and mitigate this issue.</i></p>
4	<p>Ban all aerial applications of pesticide TACs</p>	<p align="center"><i>Response on Proposed Measures 4 – 7:</i></p>

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5	Establish 24/7 buffer zones of 1 mile for all pesticide TACs for all sensitive sites, including homes, hospitals, labor camps and schools	<p><i>State law requires DPR to follow a specific process to evaluate and develop control measures for pesticide TACs.</i></p> <p><i>The TAC process includes:</i></p>
6	Ask for an evaluation of all carcinogenic TACs including, pesticides, and then create emissions reduction plans in line with that analysis	<ul style="list-style-type: none"> <li>• <i>Analyses of available data,</i></li> <li>• <i>Consultation with other agencies (including the Office of Environmental Health Hazard Assessment, OEHHA),</i></li> <li>• <i>Scientific peer review,</i></li> <li>• <i>Development and implementation of control measures, and</i></li> <li>• <i>Opportunity for public comment.</i></li> </ul>
7	Ask for an evaluation of all reproductive toxicity TACs, including pesticides, and then create emissions reduction plans in line with that analysis	<p><i>DPR must follow this legal process; therefore, it cannot arbitrarily introduce emission reduction measures including reduction of township caps, prohibition of applications, or establishment of buffer zones without strong scientific analysis.</i></p>