

# The Top Five Chemicals by Pounds Applied in each County in 2022

[Text files](https://files.cdpr.ca.gov/pub/outgoing/pur/data/) of data are available at <<https://files.cdpr.ca.gov/pub/outgoing/pur/data/>>. The ranking of chemicals is determined by total pounds of chemical used. Acres treated totals are cumulative, meaning that if a one-acre field was treated three times in a year, the cumulative acres treated would equal three acres. Cumulative acres treated totals include pesticide use reports (PURs) with unit treated equal to acres (A) or square feet (S), the latter of which was converted to acres. PURs with volume (cubic feet, etc.), weight (tons, lbs, etc.), or miscellaneous units (bins, holes, etc.) are not included in the acres treated totals. Most nonagricultural PURs are not required to report acres treated, so the acres treated totals are predominantly agricultural pesticide uses. Chemical names that end with an " \* " are adjuvants. Application counts (Apps) include only agricultural pesticide uses. A zero under Apps or Acre Treated therefore means that the pounds applied were nonagricultural uses. See Pesticide Use Annual Report Data Access, References, and Definitions Guide for more information.

County	Chemical	Pounds Applied	Apps	Acre Treated
Alameda	Sulfuryl fluoride	70,174	<0.01	<0.01
Alameda	Sodium chlorate	20,555	<0.01	<0.01
Alameda	Sulfur	18,415	635	5,225
Alameda	Glyphosate, isopropylamine salt	16,039	242	2,030
Alameda	Mineral oil	15,443	1,005	2,427
Alpine	Mineral oil	96	<0.01	<0.01
Alpine	Glyphosate, dimethylamine salt	33	4	48
Alpine	Oxyfluorfen	29	3	18
Alpine	Copper ethanalamine complexes, mixed	29	2	20
Alpine	Methylated soybean oil*	22	4	50
Amador	Sulfur	73,178	782	10,779
Amador	Mineral oil	8,168	426	5,268

County	Chemical	Pounds Applied	Apps	Acre Treated
Amador	Glyphosate, isopropylamine salt	4,855	209	1,367
Amador	Glyphosate, potassium salt	2,928	128	1,470
Amador	Methylated soybean oil*	2,577	60	869
Butte	Propanil	507,508	1,453	119,716
Butte	Mineral oil	271,004	1,694	112,705
Butte	Copper sulfate (pentahydrate)	250,835	296	20,356
Butte	Copper hydroxide	219,899	1,522	60,572
Butte	1,3-dichloropropene	186,650	34	579
Calaveras	Methylated soybean oil*	18,459	208	6,558
Calaveras	Glyphosate, dimethylamine salt	13,912	187	3,738
Calaveras	Sulfur	9,874	156	1,661
Calaveras	Glyphosate, isopropylamine salt	7,408	37	1,042
Calaveras	Alpha-alkyl (c9-c11)-omega-hydroxypoly(oxyethylene)*	3,918	40	507
Colusa	Mineral oil	146,136	458	32,188
Colusa	Glyphosate, potassium salt	135,904	1,122	54,512
Colusa	Propanil	113,172	372	27,564
Colusa	Sulfur	86,062	185	12,191
Colusa	Glyphosate, isopropylamine salt	66,407	462	23,103
Contra Costa	Sulfur	137,285	681	11,822
Contra Costa	Mineral oil	43,037	592	8,450
Contra Costa	Glyphosate, isopropylamine salt	26,580	280	6,701
Contra Costa	Sulfuryl fluoride	17,728	5	<0.01
Contra Costa	Glyphosate, potassium salt	12,658	242	6,259
Del Norte	1,3-dichloropropene	61,985	22	225
Del Norte	Metam-sodium	43,440	25	136
Del Norte	Copper hydroxide	9,071	695	5,409
Del Norte	Methylated soybean oil*	5,813	92	1,941
Del Norte	Chlorothalonil	3,071	354	2,888
El Dorado	Alpha-(para-nonylphenyl)-omega-hydroxypoly(oxyethylene), branched*	40,678	380	7,258

County	Chemical	Pounds Applied	Apps	Acre Treated
El Dorado	Mineral oil	36,318	652	4,827
El Dorado	Glyphosate, isopropylamine salt	34,350	422	5,899
El Dorado	Glyphosate, dimethylamine salt	26,519	269	5,549
El Dorado	Methylated soybean oil*	23,178	698	12,559
Fresno	Sulfur	6,859,086	17,824	777,242
Fresno	Mineral oil	6,350,722	19,230	718,361
Fresno	Potassium n-methyldithiocarbamate	2,327,773	338	11,295
Fresno	1,3-dichloropropene	1,199,700	281	5,101
Fresno	Glyphosate, isopropylamine salt	730,525	8,203	309,819
Glenn	Copper hydroxide	151,526	1,031	40,834
Glenn	Propanil	135,244	436	32,100
Glenn	1,3-dichloropropene	94,321	50	286
Glenn	Glyphosate, potassium salt	87,777	791	39,888
Glenn	Glyphosate, isopropylamine salt	83,644	1,281	35,361
Humboldt	Imazapyr, isopropylamine salt	11,046	467	9,191
Humboldt	Methylated soybean oil*	7,651	369	7,119
Humboldt	Triclopyr, butoxyethyl ester	5,404	151	2,623
Humboldt	Bifenthrin	1,684	<0.01	<0.01
Humboldt	Aluminum phosphide	1,513	<0.01	1
Imperial	Sulfur	1,305,508	1,228	66,389
Imperial	Mineral oil	408,654	4,912	251,986
Imperial	1,3-dichloropropene	376,923	67	4,131
Imperial	Pendimethalin	320,457	2,758	173,372
Imperial	Glyphosate, isopropylamine salt	245,417	607	33,889
Inyo	Methylated soybean oil*	6,409	<0.01	<0.01
Inyo	Triclopyr, butoxyethyl ester	2,228	<0.01	<0.01
Inyo	Alpha-undecyl-omega-hydroxypoly(oxyethylene)*	1,487	<0.01	<0.01
Inyo	Tall oil fatty acids*	1,373	<0.01	<0.01
Inyo	Glyphosate, isopropylamine salt	1,254	2	87
Kern	Mineral oil	7,608,380	13,200	646,846

County	Chemical	Pounds Applied	Apps	Acre Treated
Kern	Sulfur	4,115,030	12,869	715,226
Kern	Metam-sodium	1,804,681	140	9,460
Kern	Potassium n-methyldithiocarbamate	1,424,757	119	7,385
Kern	1,3-dichloropropene	1,136,905	139	5,007
Kings	Sulfur	1,753,614	1,411	106,591
Kings	Mineral oil	911,044	3,292	142,061
Kings	Vegetable oil*	369,881	952	217,040
Kings	Potassium n-methyldithiocarbamate	331,158	40	2,884
Kings	Glyphosate, potassium salt	267,699	2,186	161,203
Lake	Sulfur	305,125	1,129	38,957
Lake	Mineral oil	153,942	499	15,474
Lake	Lime-sulfur	25,583	45	909
Lake	Endothall, dipotassium salt	10,226	<0.01	288
Lake	Glyphosate, isopropylamine salt	8,345	238	2,895
Lassen	Methyl bromide	60,727	8	282
Lassen	Chloropicrin	44,482	8	282
Lassen	Sulfur	12,356	82	3,373
Lassen	Glyphosate, isopropylamine salt	12,003	94	7,979
Lassen	Glyphosate, dimethylamine salt	6,319	76	4,068
Los Angeles	Sulfuryl fluoride	690,927	<0.01	<0.01
Los Angeles	Potassium n-methyldithiocarbamate	537,400	19	1,590
Los Angeles	Boric acid	260,632	<0.01	<0.01
Los Angeles	Methyl bromide	91,216	<0.01	<0.01
Los Angeles	Glyphosate, isopropylamine salt	78,057	1,065	2,367
Madera	Sulfur	2,803,419	5,214	341,038
Madera	Mineral oil	2,319,574	5,029	277,591
Madera	1,3-dichloropropene	357,993	32	1,087
Madera	Glyphosate, isopropylamine salt	332,497	3,914	193,256
Madera	Glyphosate, potassium salt	252,382	3,571	132,200
Marin	Potassium phosphite	19,558	<0.01	<0.01
Marin	Mineral oil	16,252	21	147

County	Chemical	Pounds Applied	Apps	Acre Treated
Marin	Sulfuryl fluoride	15,899	<0.01	<0.01
Marin	Copper ethanolamine complexes, mixed	7,357	<0.01	2
Marin	Kaolin	3,685	39	175
Mariposa	Glyphosate, isopropylamine salt	2,083	55	50
Mariposa	Methylated soybean oil*	835	<0.01	1
Mariposa	Triclopyr, triethylamine salt	589	38	282
Mariposa	Boric acid	346	1	4
Mariposa	Sulfuryl fluoride	115	<0.01	<0.01
Mendocino	Copper ethanolamine complexes, mixed	1,079,573	<0.01	<0.01
Mendocino	Sulfur	452,556	2,148	61,507
Mendocino	Mineral oil	148,119	643	17,991
Mendocino	Octhilinone	126,904	<0.01	<0.01
Mendocino	5-chloro-2-methyl-4-isothiazolin-3-one	45,153	<0.01	<0.01
Merced	Sulfur	1,617,242	1,616	104,235
Merced	Mineral oil	1,223,762	4,594	236,069
Merced	1,3-dichloropropene	1,074,829	391	8,371
Merced	Potassium n-methyldithiocarbamate	557,344	103	2,323
Merced	Glyphosate, potassium salt	354,229	4,772	197,297
Modoc	Metam-sodium	34,014	4	229
Modoc	Methylated soybean oil*	7,880	587	41,339
Modoc	2,4-d, dimethylamine salt	7,670	98	6,871
Modoc	Metribuzin	7,306	180	12,731
Modoc	Paraquat dichloride	6,290	110	8,042
Mono	Diuron	1,176	19	957
Mono	Glyphosate, isopropylamine salt	532	<0.01	<0.01
Mono	Hexazinone	426	16	772
Mono	4-(2,4-db), dimethylamine salt	335	5	388

County	Chemical	Pounds Applied	Apps	Acre Treated
<b>Mono</b>	Alpha-(para-nonylphenyl)-omega-hydroxypoly(oxyethylene)*	150	26	1,492
<b>Monterey</b>	Chloropicrin	2,189,965	545	9,297
<b>Monterey</b>	Mineral oil	904,112	12,853	230,689
<b>Monterey</b>	1,3-dichloropropene	873,275	463	9,208
<b>Monterey</b>	Sulfur	712,010	8,859	188,435
<b>Monterey</b>	Potassium n-methyldithiocarbamate	396,822	123	1,673
<b>Napa</b>	Sulfur	734,983	7,378	130,569
<b>Napa</b>	Mineral oil	180,374	2,626	39,964
<b>Napa</b>	1,3-dichloropropene	24,278	6	74
<b>Napa</b>	2-(3-hydroxypropyl)-hepta-methyl trisiloxane, ethoxylated, acetate*	21,120	6,745	111,098
<b>Napa</b>	Glyphosate, potassium salt	19,702	1,056	9,076
<b>Nevada</b>	Sulfur	26,485	108	3,328
<b>Nevada</b>	Borax	10,869	<0.01	<0.01
<b>Nevada</b>	Copper ethanolamine complexes, mixed	4,772	4	24
<b>Nevada</b>	Glyphosate, isopropylamine salt	3,537	22	74
<b>Nevada</b>	Copper triethanolamine complex	2,023	5	1
<b>Orange</b>	Sulfuryl fluoride	324,582	<0.01	<0.01
<b>Orange</b>	Mineral oil	66,482	87	1,012
<b>Orange</b>	Glyphosate, isopropylamine salt	40,089	522	1,255
<b>Orange</b>	Chloropicrin	35,191	14	172
<b>Orange</b>	1,3-dichloropropene	33,582	13	253
<b>Placer</b>	Copper sulfate (pentahydrate)	69,917	68	4,663
<b>Placer</b>	Propanil	48,038	171	10,292
<b>Placer</b>	Glyphosate, isopropylamine salt	38,530	196	4,772
<b>Placer</b>	Fatty acids, methyl esters	32,981	220	8,586
<b>Placer</b>	Mineral oil	31,421	307	13,676
<b>Plumas</b>	Methylated soybean oil*	21,859	132	8,220
<b>Plumas</b>	Glyphosate, dimethylamine salt	19,463	121	7,788

County	Chemical	Pounds Applied	Apps	Acre Treated
Plumas	Hexazinone	18,681	80	9,502
Plumas	Alpha-(para-nonylphenyl)-omega-hydroxypoly(oxyethylene), branched*	17,483	34	3,371
Plumas	Sodium bromide	4,897	<0.01	<0.01
Riverside	Metam-sodium	475,470	99	2,149
Riverside	Sulfuryl fluoride	338,575	9	15
Riverside	Mineral oil	280,201	3,241	73,958
Riverside	Sulfur	257,725	2,713	59,985
Riverside	Kaolin	173,655	94	3,239
Sacramento	Sulfur	2,828,946	3,846	227,652
Sacramento	Mineral oil	636,534	3,253	69,188
Sacramento	1,3-dichloropropene	223,508	14	678
Sacramento	Glyphosate, isopropylamine salt	101,731	1,051	27,966
Sacramento	Glyphosate, potassium salt	52,917	852	21,323
San Benito	Potassium n-methyldithiocarbamate	151,571	54	745
San Benito	Diatomaceous earth	133,704	1,833	10,487
San Benito	Mineral oil	71,304	1,363	17,617
San Benito	Sulfur	60,369	586	9,257
San Benito	Kaolin	22,760	53	309
San Bernardino	Glyphosate, isopropylamine salt	66,947	394	4,213
San Bernardino	Sulfuryl fluoride	64,235	<0.01	<0.01
San Bernardino	Disodium octaborate tetrahydrate	37,445	<0.01	<0.01
San Bernardino	Boric acid	32,058	<0.01	<0.01
San Bernardino	Mineral oil	30,872	253	3,568
San Diego	Sulfuryl fluoride	431,285	<0.01	<0.01
San Diego	Mineral oil	292,014	2,058	18,735
San Diego	Glyphosate, isopropylamine salt	94,399	5,065	15,762
San Diego	Chloropicrin	75,259	86	691
San Diego	Sodium chlorate	68,776	<0.01	<0.01
San Francisco	Chlorothalonil	4,011	<0.01	621
San Francisco	Glutaraldehyde	2,898	<0.01	<0.01

County	Chemical	Pounds Applied	Apps	Acre Treated
San Francisco	Mineral oil	2,103	60	17
San Francisco	Sodium hypochlorite	1,956	<0.01	<0.01
San Francisco	1-bromo-3-chloro-5,5-dimethyl hydantoin	1,861	<0.01	<0.01
San Joaquin	Sulfur	6,303,522	11,616	502,540
San Joaquin	Mineral oil	822,323	5,497	183,909
San Joaquin	1,3-dichloropropene	602,768	117	2,250
San Joaquin	Glyphosate, isopropylamine salt	354,279	5,948	173,406
San Joaquin	Potassium n-methyldithiocarbamate	249,502	47	3,373
San Luis Obispo	Chloropicrin	606,522	114	3,148
San Luis Obispo	Sulfur	542,740	3,086	130,254
San Luis Obispo	Mineral oil	271,545	1,982	53,223
San Luis Obispo	1,3-dichloropropene	230,955	82	2,032
San Luis Obispo	Potassium n-methyldithiocarbamate	137,028	26	524
San Mateo	Sulfuryl fluoride	51,181	<0.01	<0.01
San Mateo	Potassium n-methyldithiocarbamate	35,037	32	395
San Mateo	Potassium phosphite	16,007	51	536
San Mateo	Mineral oil	13,442	65	149
San Mateo	Boric acid	10,774	<0.01	<0.01
Santa Barbara	Chloropicrin	2,025,908	363	10,534
Santa Barbara	Sulfur	897,543	3,860	167,068
Santa Barbara	1,3-dichloropropene	519,579	148	4,236
Santa Barbara	Potassium n-methyldithiocarbamate	507,772	40	1,975
Santa Barbara	Mineral oil	301,516	3,016	62,105
Santa Clara	Sulfuryl fluoride	158,740	<0.01	<0.01
Santa Clara	Potassium n-methyldithiocarbamate	94,941	41	413
Santa Clara	Boric acid	35,797	<0.01	<0.01
Santa Clara	Sulfur	29,023	371	4,660
Santa Clara	Chloropicrin	26,592	14	189
Santa Cruz	Chloropicrin	554,419	162	2,149
Santa Cruz	1,3-dichloropropene	260,932	136	2,626



County	Chemical	Pounds Applied	Apps	Acre Treated
Santa Cruz	Sulfuryl fluoride	60,523	<0.01	<0.01
Santa Cruz	Soybean oil	51,268	456	3,736
Santa Cruz	Lime-sulfur	40,343	126	1,174
Shasta	Methylated soybean oil*	40,050	511	15,089
Shasta	Glyphosate, dimethylamine salt	32,434	466	16,033
Shasta	Methyl bromide	25,244	10	120
Shasta	Chloropicrin	18,846	10	120
Shasta	Glyphosate, isopropylamine salt	18,429	187	4,982
Sierra	Glyphosate, isopropylamine salt	897	<0.01	1
Sierra	Triclopyr, triethylamine salt	788	<0.01	<0.01
Sierra	Fatty acids, methyl esters	433	18	220
Sierra	Glyphosate, dimethylamine salt	334	18	209
Sierra	Clethodim	142	9	543
Siskiyou	Methyl bromide	746,442	167	3,286
Siskiyou	Chloropicrin	430,100	167	3,286
Siskiyou	Metam-sodium	78,279	10	613
Siskiyou	1,3-dichloropropene	21,413	4	167
Siskiyou	Alpha-(para-nonylphenyl)-omega-hydroxypoly(oxyethylene), branched*	13,912	132	2,544
Solano	Sulfur	468,827	1,038	37,081
Solano	Mineral oil	92,717	385	22,744
Solano	Glyphosate, isopropylamine salt	84,332	578	32,196
Solano	Glyphosate, potassium salt	63,704	967	35,816
Solano	Copper sulfate (pentahydrate)	33,633	30	1,828
Sonoma	Sulfur	1,539,517	11,458	230,510
Sonoma	Mineral oil	291,790	3,325	60,298
Sonoma	Sulfuryl fluoride	42,823	<0.01	<0.01
Sonoma	Glyphosate, potassium salt	34,505	1,423	28,806
Sonoma	1,3-dichloropropene	26,814	5	81
Stanislaus	Mineral oil	1,576,456	4,225	211,495
Stanislaus	1,3-dichloropropene	852,640	183	3,883

County	Chemical	Pounds Applied	Apps	Acre Treated
Stanislaus	Sulfur	544,768	1,015	50,086
Stanislaus	Glyphosate, isopropylamine salt	336,583	4,776	173,658
Stanislaus	Glyphosate, potassium salt	230,608	3,570	127,361
Sutter	Mineral oil	373,966	2,001	85,882
Sutter	Propanil	297,238	806	64,770
Sutter	1,3-dichloropropene	230,330	60	725
Sutter	Copper hydroxide	176,742	1,103	35,909
Sutter	Sulfur	115,142	191	6,455
Tehama	Copper hydroxide	191,775	1,441	46,253
Tehama	1,3-dichloropropene	170,190	129	519
Tehama	Glyphosate, isopropylamine salt	84,398	1,326	32,491
Tehama	Mancozeb	69,003	1,307	38,214
Tehama	Sulfuryl fluoride	51,316	<0.01	<0.01
Trinity	Glyphosate, dimethylamine salt	9,668	95	3,820
Trinity	Alpha-(para-nonylphenyl)-omega-hydroxypoly(oxyethylene), branched*	9,047	71	2,730
Trinity	Methylated soybean oil*	7,856	138	5,352
Trinity	Glyphosate, isopropylamine salt	1,310	34	1,147
Trinity	Alpha-(para-nonylphenyl)-omega-hydroxypoly(oxyethylene)*	1,218	67	2,622
Tulare	Mineral oil	6,604,721	28,584	612,961
Tulare	Calcium hydroxide	2,502,914	6,020	111,279
Tulare	Sulfur	2,008,944	8,877	353,534
Tulare	Kaolin	587,590	715	12,922
Tulare	1,3-dichloropropene	495,366	112	1,566
Tuolumne	Glyphosate, isopropylamine salt	11,274	58	2,330
Tuolumne	Glyphosate, dimethylamine salt	9,215	105	1,695
Tuolumne	Methylated soybean oil*	7,661	121	1,930
Tuolumne	Borax	1,742	18	698
Tuolumne	Alpha-(para-nonylphenyl)-omega-hydroxypoly(oxyethylene)*	1,361	122	2,035

<b>County</b>	<b>Chemical</b>	<b>Pounds Applied</b>	<b>Apps</b>	<b>Acre Treated</b>
Ventura	Chloropicrin	1,874,390	318	10,600
Ventura	Mineral oil	1,401,031	6,668	119,315
Ventura	Potassium n-methyldithiocarbamate	943,599	121	3,833
Ventura	1,3-dichloropropene	318,575	81	2,355
Ventura	Metam-sodium	118,496	11	512
Yolo	Sulfur	2,065,644	3,566	159,360
Yolo	Mineral oil	157,948	1,686	59,126
Yolo	Glyphosate, isopropylamine salt	143,708	1,690	78,257
Yolo	Kaolin	99,757	92	3,739
Yolo	Glyphosate, potassium salt	93,104	1,124	43,170
Yuba	Mineral oil	166,329	1,157	40,272
Yuba	Propanil	155,299	579	34,487
Yuba	1,3-dichloropropene	85,407	20	255
Yuba	Copper hydroxide	79,524	464	17,634
Yuba	Sodium carbonate peroxyhydrate	67,524	54	3,656