

# Use Trends of Cholinesterase-Inhibiting Pesticides: Pounds Applied

Text files of data are available at <<https://files.cdpr.ca.gov/pub/outgoing/pur/data/>>. The reported pounds of chemicals used that are organophosphorus or carbamate cholinesterase-inhibiting pesticides. Use includes both agricultural and reportable nonagricultural applications. The word "none" or "N/A" indicates no use at all that year. Values > 1 are rounded.

Chemical	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>3-iodo-2-propynyl butylcarbamate</b>	102	<0.01	19	<0.01	28	2,980	3,002	2,636	1,303	1,415
<b>acephate</b>	152,610	130,472	185,274	144,640	170,760	159,353	192,134	171,300	158,577	123,713
<b>aldicarb</b>	24,167	1,489	1,487	126	N/A	N/A	N/A	N/A	N/A	N/A
<b>azinphos-methyl</b>	1,582	1,232	32	N/A	1	N/A	1	N/A	N/A	N/A
<b>bendiocarb</b>	3	3	2	4	1	4	3	2	2	1
<b>bensulide</b>	288,435	267,067	285,697	319,400	346,174	293,204	285,284	312,131	312,589	336,449
<b>butylate</b>	N/A	N/A	88	53	N/A	10	N/A	N/A	N/A	N/A
<b>carbaryl</b>	74,946	113,845	117,272	131,744	155,525	221,095	107,453	128,818	113,531	110,231
<b>carbofuran</b>	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>carbophenothion</b>	4	1,204	N/A	N/A	N/A	N/A	<0.01	N/A	N/A	<0.01
<b>chlorpyrifos</b>	1,301,135	1,107,027	1,469,645	1,312,209	1,107,417	903,260	948,004	602,946	12,817	14,120
<b>coumaphos</b>	3	3	14	N/A	1	N/A	<0.01	5	N/A	N/A
<b>crotoxyphos</b>	N/A	N/A	N/A	N/A	N/A	<0.01	N/A	N/A	N/A	N/A
<b>cycloate</b>	31,037	33,562	30,619	36,566	39,691	45,150	49,844	41,749	43,662	41,520
<b>ddvp</b>	5,480	4,890	4,630	4,034	4,084	3,868	3,456	3,515	3,309	4,473
<b>ddvp, other related</b>	268	276	278	162	165	123	113	109	84	153
<b>diazinon</b>	86,648	78,523	61,224	61,126	52,665	48,991	72,612	33,497	40,113	45,569
<b>dicrotophos</b>	N/A	N/A	N/A	5	<0.01	N/A	N/A	N/A	N/A	N/A
<b>dimethoate</b>	226,676	183,239	276,329	334,563	288,769	243,736	223,336	167,955	161,509	149,535
<b>dioxathion</b>	N/A	N/A	9	N/A	N/A	N/A	<0.01	N/A	N/A	N/A

Chemical	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
dioxathion, other related	N/A	N/A	4	N/A	N/A	N/A	<0.01	N/A	N/A	N/A
disulfoton	4,351	5,479	1,924	2,219	415	10	12	16	20	4
epn	13	8	20	425	1	2	<0.01	1	4	16
eptc	126,397	168,665	187,349	235,271	238,014	255,431	259,751	218,451	187,053	173,257
ethephon	548,799	484,406	397,060	348,653	319,356	399,909	485,226	433,744	444,993	348,493
ethion	1	44	N/A	<0.01	1	N/A	<0.01	N/A	2	N/A
ethoprop	7,475	2,077	2,502	3,076	1,820	2,023	2,134	5,848	5,950	7,792
fenamiphos	2,964	5,254	2,244	865	97	143	131	<0.01	N/A	N/A
fenoxycarb	3	2	1	1	9	2	3	1	<0.01	<0.01
fenthion	<0.01	N/A	N/A	<0.01	N/A	<0.01	N/A	N/A	<0.01	<0.01
formetanate hydrochloride	20,952	20,446	26,912	28,333	31,172	42,037	36,709	40,183	42,675	33,663
malathion	512,004	405,415	446,890	502,997	443,128	355,223	334,893	361,816	324,989	355,406
methamidophos	6,037	<0.01	55	N/A	N/A	N/A	1	<0.01	N/A	N/A
methidathion	29,545	23,396	6,375	3,614	245	146	11	140	2	<0.01
methiocarb	2,708	3,790	3,679	3,722	3,371	2,810	2,803	2,485	1,848	1,327
methomyl	220,085	273,338	260,662	278,690	282,507	260,627	234,580	224,670	204,228	258,100
methyl parathion	22,970	25,408	21,520	481	182	24	5	10	4	74
methyl parathion, other related	1,195	1,334	1,131	<0.01	5	<0.01	N/A	N/A	<0.01	<0.01
mevinphos	118	3	<0.01	8	9	4	N/A	7	150	19
mevinphos, other related	79	2	N/A	5	6	3	N/A	5	100	12
mexacarbate	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
molinate	<0.01	3	<0.01	<0.01	<0.01	5	N/A	N/A	<0.01	4
naled	199,203	153,116	218,690	225,285	288,485	316,868	283,944	330,866	317,840	203,316
oxamyl	136,967	52,987	73,003	65,785	17,236	2,466	38,302	78,741	103,801	63,310
oxydemeton-methyl	26,017	17,562	10,656	8,407	6,610	3,764	1,533	1,460	9	1
parathion	196	25	<0.01	1	836	41	3	3	49	11

Chemical	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
parathion, other related	<0.01	<0.01	N/A	N/A	1	<0.01	N/A	N/A	N/A	N/A
phorate	46,430	61,545	30,909	32,683	19,519	20,378	29,897	25,477	30,815	17,841
phosacetin	N/A	N/A	<0.01	<0.01	<0.01	N/A	<0.01	<0.01	<0.01	N/A
phosmet	95,781	53,587	60,903	44,344	19,278	28,971	16,869	22,596	24,856	32,075
phosphamidon	N/A	N/A	N/A	N/A	N/A	6	N/A	N/A	1	N/A
phosphamidon, other related	N/A	N/A	N/A	N/A	N/A	<0.01	N/A	N/A	<0.01	N/A
pirimicarb	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
profenofos	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
propetamphos	139	170	127	3,047	5	2	<0.01	<0.01	1	1
propoxur	808	359	373	251	100	49	43	29	15	5
ronnel	2	N/A	1	1	112	16	12	N/A	<0.01	2
s,s,s-tributyl phosphorotrithioate	30,328	21,820	19,077	11,683	6,472	6,882	8,151	8,911	8,104	6,546
sodium dimethyl dithio carbamate	13,358	13,485	22,187	16,535	9,357	18,414	18,854	11,257	4,797	1,082
sulfotep	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
temephos	34	17	8	10	5	3	4	2	2	3
tetrachlorvinphos	912	665	2,660	629	173	66	55	109	63	31
thiobencarb	246,927	280,678	289,946	373,930	523,582	698,888	603,226	592,804	654,018	595,147
thiodicarb	472	145	156	N/A	N/A	N/A	1	N/A	N/A	N/A
triallate	2,671	3,752	4,530	5,886	4,830	5,217	1,568	3,796	1,422	287
trichlorfon	40	29	25	11	<0.01	<0.01	<0.01	4	7	2
<b>Total</b>	<b>4,499,080</b>	<b>4,001,902</b>	<b>4,524,200</b>	<b>4,541,479</b>	<b>4,382,221</b>	<b>4,342,203</b>	<b>4,243,962</b>	<b>3,828,095</b>	<b>3,205,313</b>	<b>2,925,005</b>