

Use Trends of Cholinesterase-Inhibiting Pesticides: Cumulative Acres Treated

[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 reported cumulative acres treated with chemicals that are organophosphorus or carbamate cholinesterase-inhibiting pesticides. Use includes primarily agricultural applications (Most nonagricultural pesticide use reports are not required to report acreage. A zero indicates some nonagricultural use occurred, but acreage was not reported. The word "none" or "N/A" indicates no use at all that year). The grand total for acres treated may be less than the sum of acres treated for all chemicals because some products contain more than one active ingredient.

Chemical	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
3-iodo-2-propynyl butylcarbamate	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	3	8	5	<0.01
acephate	150,268	132,428	183,388	122,703	163,105	172,589	177,380	158,478	155,340	128,183
aldicarb	29,363	1,451	1,882	166	N/A	N/A	N/A	N/A	N/A	N/A
azinphos-methyl	1,809	1,639	25	N/A	1	N/A	<0.01	N/A	N/A	N/A
bendiocarb	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
bensulide	84,201	79,197	84,611	85,657	94,191	79,317	77,374	85,843	85,326	90,307
butylate	N/A	N/A	20	12	N/A	8	N/A	N/A	N/A	N/A
carbaryl	68,469	97,229	96,667	108,805	136,319	116,667	106,736	99,823	98,844	108,589
carbofuran	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
carbophenothion	12	31	N/A	N/A	N/A	N/A	1	N/A	N/A	<0.01
chlorpyrifos	1,189,181	1,056,329	1,297,547	1,108,167	829,304	641,560	690,841	432,121	6,999	7,210
coumaphos	<0.01	<0.01	1	N/A	62	N/A	<0.01	1	N/A	N/A
crotoxyphos	N/A	N/A	N/A	N/A	N/A	<0.01	N/A	N/A	N/A	N/A
cycloate	14,895	17,565	16,045	19,124	21,056	23,173	23,962	20,943	23,472	21,461
ddvp	5,184	6,530	5,593	3,307	6,282	3,317	787	12	829	735
ddvp, other related	1,945	5,442	5,537	3,301	5,149	3,287	703	10	615	470
diazinon	71,179	48,594	35,069	32,862	27,004	24,353	24,579	17,936	18,253	20,431

Chemical	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
dicrotophos	N/A	N/A	N/A	23	<0.01	N/A	N/A	N/A	N/A	N/A
dimethoate	533,330	422,259	594,688	725,261	626,623	531,217	499,453	436,246	465,897	438,556
dioxathion	N/A	N/A	78	N/A	N/A	N/A	<0.01	N/A	N/A	N/A
dioxathion, other related	N/A	N/A	78	N/A	N/A	N/A	<0.01	N/A	N/A	N/A
disulfoton	1,621	2,595	1,042	1,157	205	16	<0.01	<0.01	<0.01	<0.01
eptn	<0.01	<0.01	2	<0.01	<0.01	2	<0.01	<0.01	<0.01	5
eptc	47,930	56,872	69,989	89,126	91,525	100,883	104,142	91,173	74,459	69,548
ethephon	603,012	533,890	475,399	414,279	363,766	452,937	552,300	495,611	501,521	417,833
ethion	81	332	N/A	<0.01	306	N/A	30	N/A	94	N/A
ethoprop	1,892	541	676	844	591	575	582	1,712	1,682	2,299
fenamiphos	2,127	2,691	1,437	465	<0.01	<0.01	20	<0.01	N/A	N/A
fenoxycarb	107	110	37	58	15	33	76	20	6	11
fenthion	<0.01	N/A	N/A	<0.01	N/A	60	N/A	N/A	1	<0.01
formetanate hydrochloride	22,038	21,821	27,894	28,234	31,515	41,115	36,188	38,494	40,361	31,668
malathion	281,044	271,663	289,865	285,266	266,825	218,571	204,397	216,999	200,840	217,773
methamidophos	6,465	<0.01	69	N/A	N/A	N/A	2	<0.01	N/A	N/A
methidathion	34,918	31,741	9,046	3,564	453	198	27	138	6	<0.01
methiocarb	2,057	2,802	3,378	2,409	2,444	1,771	1,934	1,380	1,133	945
methomyl	396,539	473,041	439,832	449,913	453,834	431,681	386,649	375,222	339,451	410,702
methyl parathion	13,343	15,551	12,486	<0.01	298	60	<0.01	27	4	75
methyl parathion, other related	13,327	15,337	12,440	<0.01	36	18	N/A	N/A	<0.01	4
mevinphos	108	3	<0.01	51	51	23	N/A	136	123	150
mevinphos, other related	108	3	N/A	51	51	23	N/A	136	123	150
mexacarbate	N/A	N/A	<0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A
molinate	<0.01	<0.01	3	<0.01	1	1	N/A	N/A	<0.01	<0.01
naled	163,486	109,008	160,907	139,823	164,587	175,205	175,253	190,237	218,432	143,396
oxamyl	150,265	61,939	83,581	75,324	21,033	3,301	40,943	90,629	108,677	64,480

Chemical	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
oxydemeton-methyl	27,447	18,204	12,163	9,096	7,355	7,883	3,555	3,111	17	<0.01
parathion	68	15	<0.01	1	207	82	60	<0.01	304	80
parathion, other related	<0.01	10	N/A	N/A	10	4	N/A	N/A	N/A	N/A
phorate	32,863	47,176	22,469	25,700	14,682	16,300	23,653	20,590	24,751	14,039
phosacetin	N/A	N/A	<0.01	<0.01	<0.01	N/A	1	3	4	N/A
phosmet	33,692	18,923	23,726	21,122	10,336	11,297	7,751	8,407	9,538	16,737
phosphamidon	N/A	N/A	N/A	N/A	N/A	35	N/A	N/A	4	N/A
phosphamidon, other related	N/A	N/A	N/A	N/A	N/A	35	N/A	N/A	4	N/A
pirimicarb	<0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
profenofos	N/A	155	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
propetamphos	<0.01	<0.01	<0.01	3,621	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
propoxur	3	<0.01	4	179	39	19	<0.01	25	<0.01	<0.01
ronnel	110	N/A	11	<0.01	<0.01	<0.01	<0.01	N/A	2	<0.01
s,s,s-tributyl phosphorotrithioate	27,139	21,894	22,774	15,139	7,582	7,725	10,624	11,007	6,091	5,106
sodium dimethyl dithio carbamate	<0.01	<0.01	<0.01	<0.01	<0.01	6	10	1	<0.01	<0.01
sulfotep	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
temephos	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
tetrachlorvinphos	5	8	4	3	1,044	5	3	<0.01	<0.01	<0.01
thiobencarb	71,824	79,689	84,726	107,636	148,349	197,836	178,307	172,814	190,275	177,064
thiodicarb	656	206	247	N/A	N/A	N/A	<0.01	N/A	N/A	N/A
triallate	1,854	2,715	2,998	3,918	3,221	3,665	1,064	2,525	1,023	191
trichlorfon	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total	4,070,314	3,636,816	4,060,330	3,882,910	3,492,802	3,263,457	3,328,639	2,971,599	2,573,759	2,387,570