

IV. TRENDS IN USE IN CERTAIN PESTICIDE CATEGORIES

To provide an overview of pesticide use we have summarized use of pesticides in eight different categories from 1991 to 1998 (Tables 3–10 and Figures 1–8). These categories classify pesticides according to toxic characteristics, such as reproductive toxins, carcinogens, or reduced-risk characteristics.

Some general trends include:

- From 1997 to 1998, use increased for pesticides categorized as carcinogens and groundwater contaminants.
- From 1997 to 1998, use decreased for cholinesterase inhibitors.
- From 1997 to 1998, use decreased for reproductive toxins and toxic air contaminants (as measured in pounds). The use of reproductive toxins and toxic air contaminants increased only in the amount of acres treated.
- From 1991 to 1998, use increased for pesticides categorized as oils, reduced-risk pesticides, and biopesticides, except for decreased oil use from 1997 to 1998.
- In 1998, the use of fungicides categorized as reproductive toxins, carcinogens, and/or toxic air contaminants increased in response to widespread plant disease brought on by higher-than-average rainfall (El Niño conditions). The increased use of fungicides from 1991 to 1998 was largely responsible for the increases in acres treated with carcinogens and toxic air contaminants.
- In 1998, the use of insecticides categorized as cholinesterase inhibitors decreased in response to reduced insect pressure, probably resulting from El Niño conditions. From 1991 to 1998, use of these insecticides fluctuated and showed no general trends.
- Between 1991 and 1998, there were consistent increases in the use of herbicides on the groundwater protection list. Much of this increase is from the greater use of diuron for production agriculture and on rights-of-way. In 1998, the use of groundwater-contaminating herbicides increased because of El Niño conditions and greater crop acreage.
- The use of methyl bromide generally decreased from 1991 to 1998; structural use regulations put in place in 1992 were largely responsible for this decrease. From 1997 to 1998 there was a general reduction in the use of methyl bromide for many crops; no one use was responsible for this decrease.
- The use of metam-sodium generally increased from 1991 to 1995 and was largely responsible for the increase in pounds of reproductive toxic and carcinogenic pesticides during this period. This increase occurred in carrot, cotton, tomato, and potato crops as growers moved away from other fumigants or incorporated metam-sodium for weed control. The decrease in metam-sodium use (as measured in pounds) from 1997 to 1998 was partly responsible for the decreased use of reproductive toxins and carcinogenic pesticides.

Pesticide use is reported as the number of pounds of active ingredient and the total number of acres treated. The data for pounds include both agricultural and non-agricultural applications; the data for acres treated are primarily agricultural applications. The number of acres treated means the cumulative number of acres treated; the acres treated in each application are summed even when the same field is sprayed more than once in a year. (For example, if one acre is treated five times, it is

counted as five acres in the tables and graphs in Section IV of this report.) The “active ingredient” is the component in the pesticide product that kills or otherwise controls the target pest.

To improve data quality when calculating the total pounds of pesticides, DPR excluded values that were so large they were probably in error. Errors can occur, for example, when people reporting pesticide use shift decimal points during data entry. The procedure to exclude values involved the development of complex error-checking algorithms, a data improvement process that is ongoing.

The different pesticide categories, described more fully, are:

- 1) pesticides listed on the State's Proposition 65 list of chemicals "known to cause reproductive toxicity";
- 2) pesticides listed by U.S. EPA as B2 carcinogens or on the State's Proposition 65 list of chemicals "known to cause cancers";
- 3) pesticides that are cholinesterase inhibitors, that is, organophosphate and carbamate chemicals;
- 4) pesticides on the groundwater protection list [California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6800(a)] and norflurazon, which DPR is recommending be listed as a restricted material;
- 5) pesticides from the toxic air contaminants list (California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6860);
- 6) oil pesticides, which may include some chemicals on the State's Proposition 65 list of chemicals “known to cause cancer” but which also serve as alternatives to high-toxicity pesticides;
- 7) active ingredients contained in pesticide products that have been given reduced-risk status by U.S. EPA;
- 8) biopesticides, which include microorganisms and naturally occurring compounds, or compounds essentially identical to naturally occurring compounds, that are not toxic to the target pest (such as pheromones).

Table 3A. The reported pounds of pesticides used which are on the State’s Proposition 65 list of chemicals that are “known to cause reproductive toxicity”. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
1080	1	<1	<1	<1	<1	1	<1	<1
2,4-DB ACID	0	0	0	0	0	0	1,697	6,932
AMITRAZ	5,834	8,953	4,877	70,363	75,018	55,459	66,439	13,563
ARSENIC PENTOXIDE	201,059	262,017	150,200	86,445	83,814	205,089	64,372	50,899
ARSENIC TRIOXIDE	0	<1	<1	<1	<1	<1	<1	1
BENOMYL	116,961	125,777	536,594	141,586	189,943	148,433	114,406	227,690
BROMOXYNIL HEPTANOATE	0	0	0	0	0	0	9	263
BROMOXYNIL OCTANOATE	79,023	106,724	112,643	127,154	119,407	148,480	115,368	120,877
CYANAZINE	275,809	340,945	501,962	532,688	641,057	566,633	470,838	277,313
CYCLOATE	44,451	49,041	51,715	51,035	49,138	44,628	55,459	62,753
DICLOFOP-METHYL	12,021	30,616	23,082	38,276	16,540	79,874	41,130	24,783
DISODIUM CYANODITHIOIMIDO CARBONATE	<1	0	0	0	0	0	0	0
EPTC	747,253	641,581	698,176	765,576	660,185	703,996	579,245	393,031
ETHYLENE OXIDE	29	7	1,471	3	0	0	0	31
FENOXAPROP ETHYL	0	0	0	5,023	3,731	3,974	3,895	1,504
FLUAZIFOP-BUTYL	12,660	18,361	21,356	19,772	20,451	15,095	15,253	14,724
HYDRAMETHYLNON	114	145	142	227	807	1,741	5,456	3,183
LINURON	64,063	73,577	230,827	79,950	84,937	84,335	84,621	82,170
LITHIUM HYPOCHLORITE	0	0	0	0	0	0	1	0
METAM-SODIUM	4,873,276	8,554,646	8,588,969	11,122,361	14,975,528	15,253,924	14,969,732	13,729,306
METHYL BROMIDE	17,578,480	18,051,774	14,115,900	16,607,324	17,165,964	16,022,069	15,663,832	13,569,875
METIRAM	0	0	0	0	0	0	0	<1
MYCLOBUTANIL	40,394	57,288	86,712	69,941	85,525	89,087	94,375	129,773
NABAM	0	4	0	8	1	0	0	50
NICOTINE	3,259	898	457	457	228	298	258	83
NITRAPYRIN	605	332	175	150	639	114	49	407
OXADIAZON	17,179	18,122	19,269	20,488	21,458	25,260	23,196	21,959
OXYDEMETON-METHYL	115,179	118,285	117,416	111,347	120,101	106,612	115,781	89,789
OXYTHIOQUINOX	5,347	6,829	6,207	4,474	7,172	6,204	2,709	1,576
POTASSIUM DIMETHYL DITHIO CARBAMATE	0	0	21	47	0	0	15	24,795
RESMETHRIN	3,101	1,519	1,720	1,069	856	661	594	796
SODIUM DIMETHYL DITHIO CARBAMATE	0	4	0	337	1	0	0	8,279
STREPTOMYCIN SULFATE	0	1,988	5,110	6,165	9,619	9,494	9,605	14,950
TAU-FLUVALINATE	3,944	4,632	3,730	4,723	3,787	4,137	3,040	2,827
TRIADIMEFON	45,968	48,645	29,699	24,147	20,692	17,370	12,204	12,919
TRIFORINE	17,713	29,268	41,848	32,574	39,729	24,877	6,562	2,752
VINCLOZOLIN	42,626	41,221	37,550	33,661	48,270	60,286	46,908	54,719
WARFARIN	1	1	1	<1	<1	1	1	1
Total	24,306,352	28,593,201	25,387,829	29,957,370	34,444,598	33,678,130	32,567,052	28,944,574

Table 3B. The reported cumulative acres treated with pesticides which are on the State’s Proposition 65 list of chemicals “known to cause reproductive toxicity”. Use includes primarily agricultural applications. The total for acres treated may be less than the sum of acres treated for all active ingredients because some products contain more than one active ingredient. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
1080	241	0	0	53	32	25	0	0
2,4-DB ACID	0	0	0	0	0	0	2,599	12,167
AMITRAZ	4,126	6,327	3,391	137,434	174,867	129,857	161,651	28,945
ARSENIC PENTOXIDE	0	103	0	660	0	0	0	0
ARSENIC TRIOXIDE	0	0	0	0	0	0	0	0
BENOMYL	217,799	256,653	278,444	271,289	360,931	310,563	245,687	434,725
BROMOXYNIL HEPTANOATE	0	0	0	0	0	0	36	521
BROMOXYNIL OCTANOATE	153,791	222,988	204,241	245,715	224,276	277,062	224,250	240,997
CYANAZINE	154,286	206,875	263,463	284,812	365,520	325,627	288,087	185,082
CYCLOATE	21,806	23,172	21,600	22,571	20,685	19,597	25,986	29,761
DICLOFOP-METHYL	15,406	41,919	27,457	47,273	19,314	89,276	47,217	28,296
DISODIUM CYANODITHIOIMIDO CARBONATE	0	0	0	0	0	0	0	0
EPTC	282,029	238,804	246,970	273,441	241,587	232,820	208,093	141,511
ETHYLENE OXIDE	0	0	0	0	0	0	0	194
FENOXAPROP ETHYL	0	0	0	33,712	24,153	25,540	24,439	10,480
FLUAZIFOP-BUTYL	64,702	78,596	88,357	90,378	80,726	58,367	54,192	55,734
HYDRAMETHYLNON	0	0	2	0	3	36	35	289
LINURON	71,368	87,584	111,535	97,887	105,284	104,772	110,067	112,122
LITHIUM HYPOCHLORITE	0	0	0	0	0	0	0	0
METAM-SODIUM	63,583	135,606	136,218	183,625	199,457	215,899	198,395	154,309
METHYL BROMIDE	103,092	124,739	89,220	106,694	107,933	96,507	103,068	90,107
METIRAM	0	0	0	0	0	0	0	<1
MYCLOBUTANIL	426,456	574,972	859,361	692,036	841,178	814,268	866,360	1,225,372
NABAM	0	0	0	0	0	0	0	55
NICOTINE	2,789	2,005	348	382	237	167	128	57
NITRAPYRIN	1,277	698	434	261	1,493	147	105	851
OXADIAZON	2,706	1,317	1,094	1,812	2,400	2,213	1,832	1,933
OXYDEMETON-METHYL	238,216	235,570	235,013	226,433	253,868	220,824	244,056	186,964
OXYTHIOQUINOX	8,040	9,407	9,227	6,410	10,000	8,768	5,896	5,306
POTASSIUM DIMETHYL DITHIO CARBAMATE	0	0	0	6	0	0	0	0
RESMETHRIN	317	398	512	419	222	144	182	160
SODIUM DIMETHYL DITHIO CARBAMATE	0	0	0	0	0	0	0	253
STREPTOMYCIN SULFATE	0	19,260	49,236	58,703	84,111	84,999	89,336	131,936
TAU-FLUVALINATE	21,522	21,690	24,386	26,578	19,771	22,156	18,387	14,075
TRIADIMEFON	303,307	330,965	165,472	132,295	118,746	100,142	59,229	79,968
TRIFORINE	38,223	56,156	84,554	64,069	76,411	53,589	17,455	6,352
VINCLOZOLIN	68,951	59,653	49,042	49,519	66,672	82,968	67,373	69,067
WARFARIN	309	493	112	192	151	541	382	310
Total	2,264,337	2,735,951	2,949,673	3,054,660	3,400,029	3,276,877	3,064,490	3,247,323

Pounds of Pesticides Categorized as Reproductive Toxins Reported Used in California

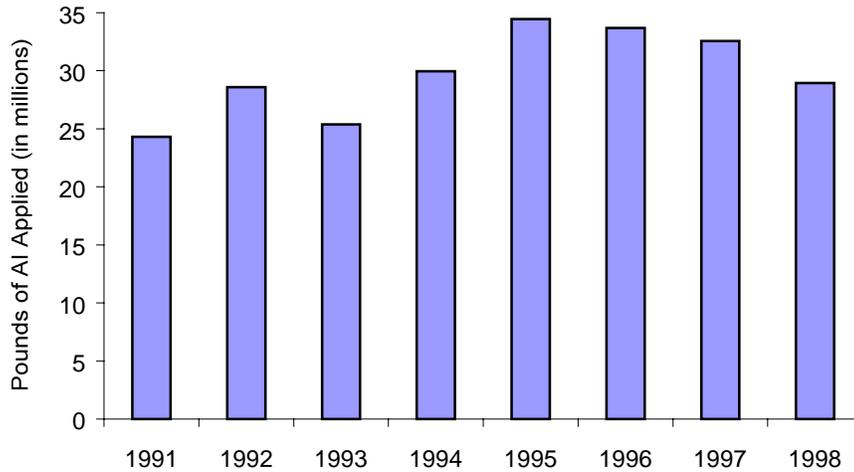


Figure 1A. The reported pounds of pesticides applied in California from 1991 to 1998. These pesticides are the currently registered active ingredients listed in Proposition 65 as known to cause reproductive toxicity. Use includes both agricultural and non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Acres Treated in California with Pesticides Categorized as Reproductive Toxins

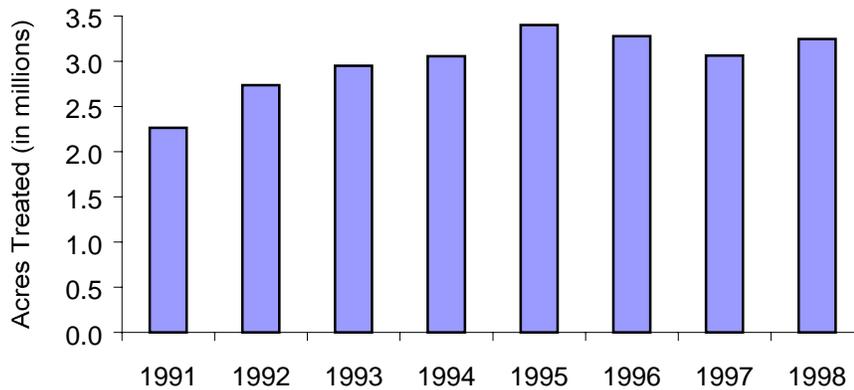


Figure 1B. The reported cumulative acres treated with reproductive toxic pesticides in California from 1991 to 1998. These pesticides are the currently registered active ingredients listed in Proposition 65 that are known to cause reproductive toxicity. Use includes primarily agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Table 4A. The reported pounds of pesticides used that are listed by U.S. EPA as B2 carcinogens or that are on the State’s Proposition 65 list of chemicals “known to cause cancer”. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation’s Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
1,3-DICHLOROPROPENE	13,555	23,998	47,694	2,122	409,821	1,956,846	2,400,930	2,911,385
ACIFLUORFEN, SODIUM SALT	<1	17	6	1	6	11	29	<1
ALACHLOR	88,586	82,046	44,957	42,854	41,119	45,733	51,259	46,264
ARSENIC ACID	98,800	72,182	13,014	27,571	37,206	53,777	59,835	52,558
ARSENIC PENTOXIDE	201,059	262,017	150,200	86,445	83,814	205,089	64,372	50,899
ARSENIC TRIOXIDE	0	<1	<1	<1	<1	<1	<1	1
CACODYLIC ACID	26,044	37,928	51,314	43,685	43,275	31,417	26,060	17,379
CAPTAN	253,452	295,542	483,507	608,658	734,314	918,588	799,878	1,542,664
CHLOROTHALONIL	656,775	824,171	826,918	832,288	1,125,790	1,053,319	779,328	1,181,163
CHROMIC ACID	279,852	364,900	209,555	120,822	117,092	286,521	89,931	71,109
CREOSOTE	318,174	304,448	479,417	871,469	444,461	491,044	259,086	1,752
DAMINOZIDE	7,696	7,636	7,763	6,775	6,763	7,944	11,028	10,306
DDVP	5,466	5,224	3,331	4,798	6,063	13,097	13,636	13,998
DI-OCTYL PHTHALATE	10,057	11,164	10,827	11,748	11,838	10,268	8,457	4,749
DIPROPYL ISOCINCHOMERONATE	<1	10	<1	2	1	3	<1	<1
ETHYLENE OXIDE	29	7	1,471	3	0	0	0	31
FENOXYCARB	683	1,194	1,928	1,492	1,673	712	65	552
FOLPET	3	1	3	3	2	<1	<1	<1
FORMALDEHYDE	271,663	5,094	13,322	11,864	153,519	334,548	403,824	305,297
IPRODIONE	350,363	373,968	452,112	431,318	564,127	520,763	424,338	572,287
LINDANE	8,590	8,208	9,715	5,281	4,507	4,576	5,388	6,293
MANCOZEB	283,715	336,371	446,086	464,924	659,240	567,866	526,364	987,270
MANEB	352,155	464,469	625,326	912,903	1,257,122	1,328,318	1,081,124	1,596,876
METAM-SODIUM	4,873,276	8,554,646	8,588,969	11,122,361	14,975,528	15,253,924	14,969,732	13,729,306
METIRAM	0	0	0	0	0	0	0	<1
ORTHO-PHENYLPHENOL	1,335	2,839	6,232	11,027	14,892	10,349	15,962	11,248
ORTHO-PHENYLPHENOL, SODIUM SALT	36,658	64,940	63,741	46,825	30,830	33,539	25,389	32,315
OXADIAZON	17,179	18,122	19,269	20,488	21,458	25,260	23,196	21,959
OXYTHIOQUINOX	5,347	6,829	6,207	4,474	7,172	6,204	2,709	1,576
PARA-DICHLOROBENZENE	108	82	37	3	2	4	3	219
PCP	196,252	107,946	91,123	40	3	3	8	33
POTASSIUM DICHROMATE	2,458	1,705	106	596	380	41	50	103
PROPARGITE	1,291,184	1,702,328	1,653,855	1,742,736	1,770,065	1,743,278	1,816,028	1,385,166
PROPOXUR	4,374	3,187	2,674	2,667	3,296	1,341	1,760	1,604
PROPYLENE OXIDE	111,919	131,091	34,764	41,815	131,593	224,495	198,559	198,595
PROPYZAMIDE	118,828	109,266	110,123	111,797	113,761	106,811	99,292	104,292
SILICA AEROGEL	26,896	8,525	10,052	14,245	12,599	16,216	10,780	8,483
SODIUM DICHROMATE	0	0	0	0	0	180,478	182,185	122,647
THIODICARB	0	0	<1	0	13,679	122,927	156,002	114,785
Total	9,912,531	14,192,102	14,465,619	17,606,103	22,797,011	25,555,309	24,506,588	25,105,164

Table 4B. The reported cumulative acres treated with pesticides listed by U.S. EPA as B2 carcinogens or on the State’s Proposition 65 list of chemicals “known to cause cancer”. Use includes primarily agricultural applications. The total for acres treated is less than the sum of acres treated for all active ingredients because some products contain more than one active ingredient. Data from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
1,3-DICHLOROPROPENE	91	447	823	33	4,174	17,223	22,193	27,059
ACIFLUORFEN, SODIUM SALT	0	4	7	2	8	<1	0	0
ALACHLOR	33,312	27,472	17,637	16,135	15,359	18,181	19,059	16,430
ARSENIC ACID	0	0	0	0	0	0	0	0
ARSENIC PENTOXIDE	0	103	0	660	0	0	0	0
ARSENIC TRIOXIDE	0	0	0	0	0	0	0	0
CACODYLIC ACID	206,243	283,516	326,027	304,060	315,336	251,414	192,816	126,912
CAPTAN	127,668	134,103	212,563	244,164	295,860	381,989	347,631	602,684
CHLOROTHALONIL	382,812	517,695	535,201	517,357	674,126	674,086	492,219	796,672
CHROMIC ACID	0	103	0	660	0	0	0	0
CREOSOTE	2	0	0	0	0	0	0	126
DAMINOZIDE	2,941	3,113	3,262	2,692	2,659	2,653	3,512	4,510
DDVP	5,530	2,960	683	1,888	1,887	1,499	2,596	3,692
DIOCTYL PHTHALATE DIPROPYL ISOCINCHOMERONATE	108,525	124,467	125,572	149,314	145,445	127,521	96,208	61,343
ETHYLENE OXIDE	0	0	0	0	0	0	0	194
FENOXYCARB	30	674	1	5	11	5	<1	210
FOLPET	0	0	3	<1	0	1	2	0
FORMALDEHYDE	106	68	132	15	137	234	12	126
IPRODIONE	549,994	582,227	721,086	656,402	886,077	804,311	666,336	1,348,367
LINDANE	21,409	21,737	26,921	22,984	19,380	25,352	36,573	32,650
MANCOZEB	148,643	186,333	262,758	273,836	405,494	351,801	284,134	682,979
MANEB	216,990	290,011	373,116	512,009	652,122	731,079	624,123	942,083
METAM-SODIUM	63,583	135,606	136,218	183,625	199,457	215,899	198,395	154,309
METIRAM	0	0	0	0	0	0	0	<1
ORTHO-PHENYLPHENOL ORTHO-PHENYLPHENOL, SODIUM SALT	40	732	6	4	8	67	75	645
OXADIAZON	733	111	52	88	47	652	0	20
OXATHIQUINOX	2,706	1,317	1,094	1,812	2,400	2,213	1,832	1,933
PARA-DICHLOROBENZENE	8,040	9,407	9,227	6,410	10,000	8,768	5,896	5,306
PCP	<1	0	<1	0	0	0	0	10
POTASSIUM DICHROMATE	1	1	0	2	<1	15	4	190
PROPARGITE	0	0	0	0	0	0	0	40
PROPOXUR	767,907	1,006,602	952,438	1,030,485	1,052,358	980,963	989,265	756,098
PROPYLAMINE	2	8	<1	14	5	9	73	45
PROPYLENE OXIDE	0	10	0	0	0	0	<1	0
PROPYZAMIDE	165,848	156,702	156,678	157,829	155,773	150,791	140,791	144,864
SILICA AEROGEL	5	<1	<1	1	1	1	5	<1
SODIUM DICHROMATE	0	0	0	0	0	0	0	0
THIODICARB	0	0	0	0	22,785	176,788	223,154	155,440
Total	2,797,795	3,471,061	3,842,858	4,062,321	4,844,355	4,901,345	4,314,492	5,842,620

Pounds of Pesticides Categorized as Carcinogens Reported Used in California

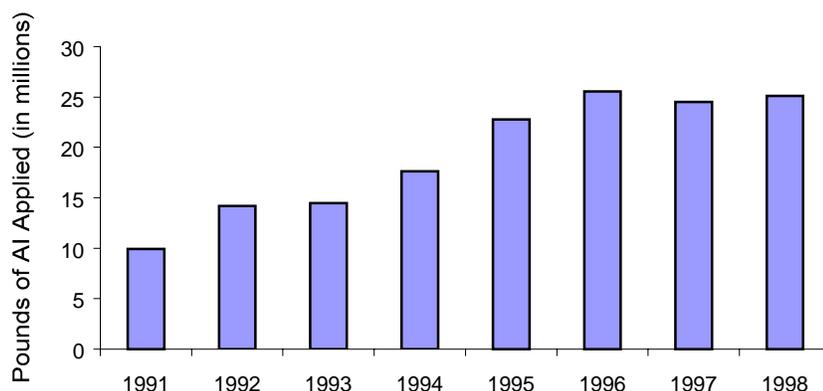


Figure 2A. The reported pounds of carcinogenic pesticides applied in California from 1991 to 1998. These pesticides are the currently registered active ingredients listed in Proposition 65 as carcinogens or listed by U.S. EPA as B2 carcinogens. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Acres Treated in California by Pesticides Categorized as Carcinogens

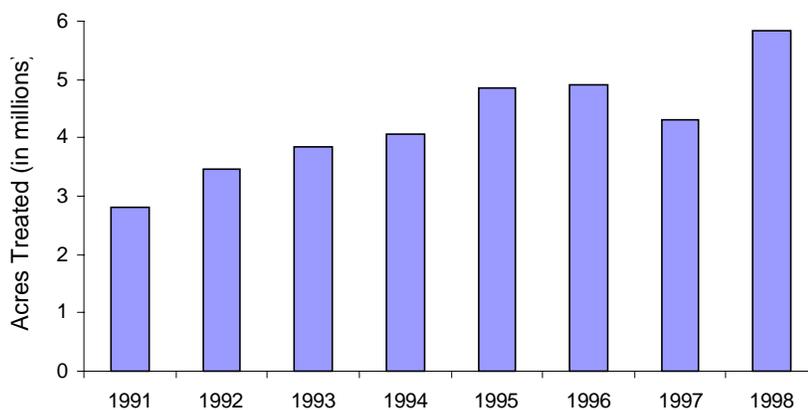


Figure 2B. The reported cumulative acres treated in California from 1991 to 1996 with carcinogenic pesticides. These pesticides are the currently registered active ingredients listed in Proposition 65 as carcinogens or listed by U.S. EPA as B2 carcinogens. Use includes primarily agricultural applications. Data from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Table 5A. The reported pounds of cholinesterase inhibiting pesticides used. These pesticides are the currently registered organophosphate and carbamate active ingredients. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
3-IODO-2-PROPYNYL BUTYL CARBAMATE	<1	0	<1	0	0	<1	0	1
ACEPHATE	346,072	380,706	331,453	371,862	458,012	355,350	343,840	384,091
ALDICARB	190,707	164,291	237,382	225,973	354,500	545,117	530,066	534,665
AZINPHOS METHYL	478,506	520,356	474,748	418,935	406,230	406,099	336,353	193,069
BENDIOCARB	16,218	20,150	9,740	4,431	1,526	1,674	259	125
BENSULIDE	73,225	57,944	55,639	64,796	69,271	94,587	129,784	192,136
BUTYLATE	71,571	90,218	121,979	108,686	67,179	87,612	84,268	69,805
CARBARYL	935,071	775,078	773,404	820,787	835,811	809,794	753,801	426,893
CARBOFURAN	320,489	287,629	289,581	278,108	242,999	220,622	183,321	161,588
CHLORPROPHAM	3,451	3,953	5,448	3,000	3,230	3,015	2,057	2,321
CHLORPYRIFOS	2,024,872	2,536,605	2,246,121	2,887,838	3,385,416	2,687,809	3,152,564	2,355,626
CYCLOATE	44,451	49,041	51,715	51,035	49,138	44,628	55,459	62,753
DDVP	5,466	5,224	3,331	4,798	6,063	13,097	13,636	13,998
DESMEDIPHAM	9,620	10,430	8,956	8,588	8,465	6,092	6,188	4,737
DIAZINON	949,751	1,306,574	1,412,733	1,358,358	1,216,935	1,093,121	955,108	900,596
DIMETHOATE	687,998	635,778	586,300	671,948	583,498	419,807	515,798	397,847
DISULFOTON	173,463	176,216	151,010	134,600	95,972	142,372	128,335	105,327
EPTC	747,253	641,581	698,176	765,576	660,185	703,996	579,245	393,031
ETHEPHON	807,506	608,613	859,439	848,134	982,776	951,415	882,802	762,217
ETHOPROP	77,274	41,512	62,143	51,270	51,104	27,955	23,842	27,949
FENAMIPHOS	182,331	186,312	232,396	178,781	187,242	189,379	156,280	125,459
FENTHION	1,298	1,089	146	186	413	141	176	29
FONOFOS	66,346	58,213	55,991	73,167	74,936	67,969	50,555	25,349
FORMETANATE HYDROCHLORIDE	173,892	200,592	182,061	152,622	104,012	106,168	97,907	77,723
MALATHION	869,360	779,204	708,469	749,317	801,496	673,379	773,782	645,889
METHAMIDOPHOS	309,889	283,562	330,178	240,959	500,055	260,255	312,067	244,269
METHIDATHION	323,457	385,998	451,826	367,447	321,605	328,328	309,154	178,451
METHIOCARB	6,247	4,613	3,686	4,126	2,672	2,120	4,769	5,384
METHOMYL	596,848	571,743	528,545	707,814	807,977	679,383	833,758	666,442
METHYL PARATHION	71,108	102,730	154,452	129,155	140,469	130,614	153,187	158,228
MOLINATE	1,133,846	1,375,411	1,518,002	1,496,227	1,377,257	1,356,258	1,170,699	1,006,025
NALED	171,127	160,012	180,642	457,723	700,676	351,267	615,314	260,048
OXAMYL	59,035	70,894	71,478	73,440	66,179	82,327	119,441	161,042
OXYDEMETON-METHYL	115,179	118,285	117,416	111,347	120,101	106,612	115,781	89,789
PEBULATE	281,591	219,766	191,529	235,690	244,181	202,634	184,015	185,696
PHENMEDIPHAM	9,706	10,632	9,062	8,863	8,771	6,612	6,621	5,836
PHORATE	193,982	217,399	151,250	159,146	135,887	160,854	139,725	149,707
PHOSALONE	3,996	703	180	99	52	27	33	11
PHOSMET	275,532	258,465	204,157	189,415	266,349	395,160	566,484	644,898
PROFENOFOS	6,595	39,708	51,239	263,884	245,420	184,264	150,575	40,433

Table 5A continued. The reported pounds of cholinesterase inhibiting pesticides used.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
PROPAMOCARB HYDROCHLORIDE	0	0	0	0	0	16,341	10,215	57,121
PROPETAMPHOS	32,886	24,235	23,804	38,307	77,985	23,249	17,338	9,970
PROPOXUR	4,374	3,187	2,674	2,667	3,296	1,341	1,760	1,604
S,S,S-TRIBUTYL PHOSPHOROTRITHIOATE	798,052	757,765	920,837	892,441	866,726	760,809	626,684	440,382
SODIUM DIMETHYL DITHIO CARBAMATE	0	4	0	337	1	0	0	8,279
SULFOTEP	897	1,199	1,141	1,000	509	316	355	213
SULPROFOS	10,255	1,370	236	876	171	0	119	84
TETRACHLORVINPHOS	18,924	27,270	8,247	10,051	7,118	7,056	6,044	5,831
THIOBENCARB	73,164	175,805	252,423	406,085	559,610	618,412	894,287	724,926
THIODICARB	0	0	<1	0	13,679	122,927	156,002	114,785
TRICHLORFON	7,090	4,236	5,607	4,275	4,552	3,327	3,843	2,476
Total	13,759,971	14,352,300	14,736,972	16,034,172	17,117,709	15,451,689	16,153,697	13,025,153

Table 5B. The reported cumulative acres treated with cholinesterase inhibiting pesticides. These pesticides are the currently registered organophosphate and carbamate active ingredients. Use includes primarily agricultural applications. The total for acres treated is less than the sum of acres treated for all active ingredients because some products contain more than one active ingredient. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
3-IODO-2-PROPYNYL BUTYL CARBAMATE	<1	0	<1	0	0	<1	0	150
ACEPHATE	380,205	394,165	328,012	402,643	489,259	406,607	372,566	403,465
ALDICARB	195,378	153,672	254,372	256,428	355,717	490,499	442,029	399,093
AZINPHOS METHYL	362,047	357,655	324,769	293,466	274,347	277,745	233,406	134,334
BENDIOCARB	2,460	2,268	1,661	1,574	499	188	19	28
BENSULIDE	27,085	17,545	15,239	17,446	22,489	31,916	45,795	61,984
BUTYLATE	15,899	19,777	24,957	23,105	14,864	17,689	17,572	14,259
CARBARYL	290,073	322,588	285,046	291,147	305,452	312,058	292,721	199,540
CARBOFURAN	465,526	393,594	397,071	460,647	449,507	364,150	322,064	303,861
CHLORPROPHAM	187	118	482	20	<1	4	26	106
CHLORPYRIFOS	1,119,058	1,130,628	1,163,147	1,910,520	2,824,142	1,869,874	2,223,551	1,665,501
CYCLOATE	21,806	23,172	21,600	22,571	20,685	19,597	25,986	29,761
DDVP	5,530	2,960	683	1,888	1,887	1,499	2,596	41,472
DESMEDIPHAM	53,139	59,693	58,486	62,171	71,577	51,183	61,368	56,272
DIAZINON	692,487	792,397	828,003	878,221	752,898	680,947	530,355	475,596
DIMETHOATE	1,267,141	1,031,266	1,005,411	1,205,884	1,193,214	955,445	1,097,751	869,531
DISULFOTON	144,397	155,955	127,555	114,949	87,291	147,078	124,319	100,935
EPTC	282,029	238,804	246,970	273,441	241,587	232,820	208,093	141,171
ETHEPHON	768,964	555,613	727,925	704,394	806,425	776,247	700,941	654,248

Table 5B continued. The reported cumulative acres treated with cholinesterase inhibiting pesticides.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
ETHOPROP	9,224	5,113	7,062	5,767	5,470	3,139	3,213	3,784
FENAMIPHOS	103,512	107,492	142,914	114,333	112,249	111,729	97,013	70,182
FENTHION	13	<1	<1	<1	<1	<1	<1	<1
FONOFOS	56,882	47,038	50,046	58,852	59,041	55,207	36,123	16,926
FORMETANATE HYDROCHLORIDE	166,305	180,958	170,117	141,203	100,837	103,521	95,544	77,915
MALATHION	448,833	403,997	357,210	401,037	425,062	363,635	410,658	382,996
METHAMIDOPHOS	415,188	441,648	284,160	199,314	418,703	313,618	263,816	289,368
METHIDATHION	277,473	317,536	315,398	255,006	231,930	245,914	200,528	128,691
METHIOCARB	11,694	8,655	4,853	3,394	2,129	1,511	2,906	3,523
METHOMYL	1,145,546	969,920	932,435	1,215,586	1,425,295	1,145,115	1,376,868	1,116,897
METHYL PARATHION	126,351	135,774	171,353	137,691	129,976	125,729	125,638	128,216
MOLINATE	292,711	350,994	388,852	384,031	348,465	357,239	317,680	266,040
NALED	160,356	175,023	167,034	473,011	702,155	338,861	604,615	255,279
OXAMYL	106,355	97,332	106,553	115,085	106,205	122,353	176,793	225,380
OXYDEMETON-METHYL	238,216	235,570	235,013	226,433	253,868	220,824	244,056	186,964
PEBULATE	94,747	78,948	65,788	76,688	86,494	74,647	69,381	64,356
PHENMEDIPHAM	53,368	60,237	58,343	62,694	72,060	52,125	62,449	58,649
PHORATE	178,479	187,605	125,357	133,392	111,217	123,789	106,427	109,759
PHOSALONE	2,494	416	108	47	56	18	64	5
PHOSMET	209,297	174,281	150,436	136,500	172,539	214,416	236,611	312,024
PROFENOFOS	29,892	44,258	62,345	336,830	296,860	211,769	162,204	43,365
PROPAMOCARB HYDROCHLORIDE	0	0	0	0	0	23,793	14,677	80,880
PROPETAMPHOS	<1	<1	<1	<1	<1	<1	<1	<1
PROPOXUR	2	8	<1	14	5	9	73	45
S,S,S-TRIBUTYL PHOSPHOROTRITHIOATE	569,961	574,170	652,163	615,978	604,586	531,052	437,505	305,794
SODIUM DIMETHYL DITHIO CARBAMATE	0	<1	0	<1	<1	0	0	253
SULFOTEP	2,071	903	1,191	884	537	408	251	241
SULPROFOS	18,224	1,252	1,273	896	299	0	83	80
TETRACHLORVINPHOS	1,381	2,072	553	780	519	674	356	39,109
THIOBENCARB	18,846	45,140	65,612	91,906	126,745	159,121	227,658	185,882
THIODICARB	0	0	<1	0	22,785	176,788	223,154	155,440
TRICHLORFON	4,633	1,991	2,444	818	1,037	204	149	1,071
Total	10,773,884	10,236,326	10,271,043	12,043,318	13,656,124	11,660,693	12,135,586	9,937,811

Pounds of Cholinesterase Inhibiting Pesticides Reported Used in California

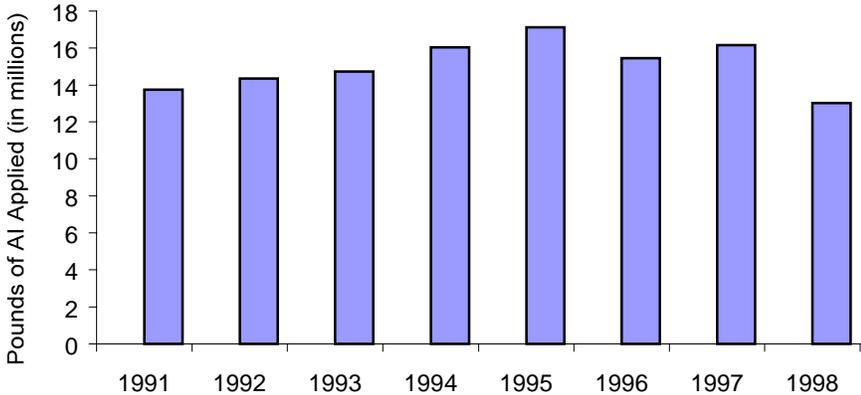


Figure 3A. The reported pounds of cholinesterase inhibiting pesticides applied in California from 1991 to 1998. These pesticides are the currently registered organophosphate and carbamate active ingredients. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Acres Treated in California with Cholinesterase Inhibiting Pesticides

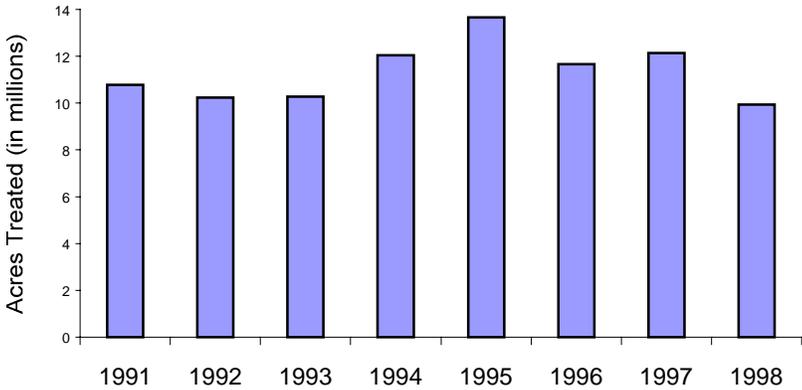


Figure 3B. The reported acres treated in California from 1991 to 1998 with cholinesterase inhibiting pesticides. These pesticides are the currently registered organophosphate and carbamate active ingredients. Use includes primarily agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Table 6A. The reported pounds of pesticides on the groundwater protection list applied in California from 1991 to 1998. These pesticides are the currently registered active ingredients listed in the California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6800(a) and norflurazon. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
ATRAZINE	52,556	48,313	44,485	46,497	36,078	57,018	46,568	54,840
ATRAZINE, OTHER RELATED	2,792	2,567	2,365	2,480	1,932	3,062	2,502	2,943
BENTAZON, SODIUM SALT	1,100	846	1,017	1,175	655	1,518	1,907	1,757
BROMACIL	99,906	112,160	117,128	104,052	95,444	98,293	82,424	84,645
BROMACIL, DIMETHYLAMINE SALT	<1	0	0	0	0	0	0	0
BROMACIL, LITHIUM SALT	5,742	4,837	7,045	11,085	6,517	17,381	9,141	4,686
DIURON	1,079,083	916,083	1,074,854	1,234,507	1,054,409	1,265,426	1,228,114	1,504,268
NORFLURAZON	141,752	171,375	164,451	154,383	153,138	196,142	212,621	265,886
PROMETON	186	87	41	84	117	68	20	22
SIMAZINE	752,893	887,151	957,812	890,353	837,366	839,209	764,586	794,758
Total	2,136,012	2,143,420	2,369,197	2,444,616	2,185,656	2,478,115	2,347,882	2,713,804

Table 6B. The reported acres treated in California from 1991 to 1998 with pesticides on the groundwater protection list. These pesticides are the currently registered active ingredients listed in the California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6800(a) and norflurazon. Use includes primarily agricultural applications. The total for acres treated is less than the sum of acres treated for all active ingredients because some products contain more than one active ingredient. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
ATRAZINE	21,374	21,425	23,617	32,065	22,234	32,043	27,257	37,556
ATRAZINE, OTHER RELATED	21,374	21,425	23,617	32,065	22,234	32,042	27,257	37,529
BENTAZON, SODIUM SALT	1,260	894	1,107	1,688	805	1,460	2,010	1,904
BROMACIL	69,584	82,090	78,423	65,421	66,289	62,206	58,722	57,136
BROMACIL, DIMETHYLAMINE SALT	0	0	0	0	0	0	0	0
BROMACIL, LITHIUM SALT	0	<1	0	0	0	0	0	40
DIURON	348,038	392,716	414,892	454,829	507,279	685,352	819,993	865,246
NORFLURAZON	117,279	143,942	142,274	139,498	133,585	179,015	186,991	214,144
PROMETON	48	3	11	8	23	27	8	85
SIMAZINE	544,287	616,551	615,003	589,560	573,735	607,228	613,237	647,072
Total	1,033,579	1,179,383	1,198,303	1,218,778	1,238,484	1,505,936	1,651,236	1,769,479

Pounds of Pesticides on the Groundwater Protection List Reported in California

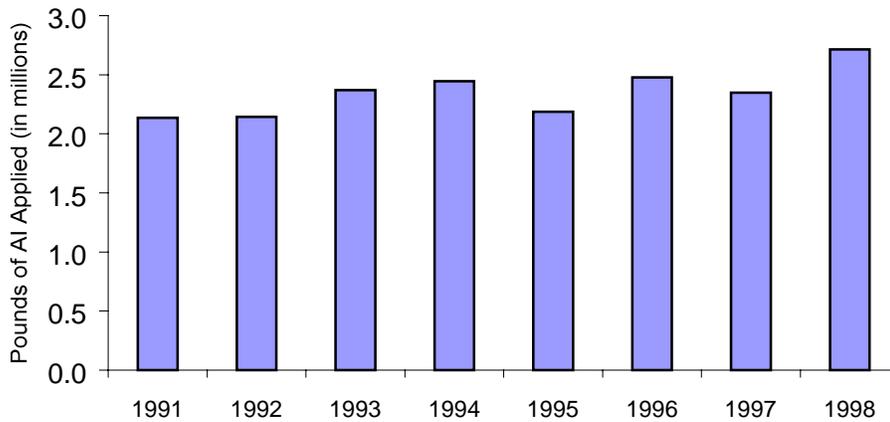


Figure 4A. The reported pounds of pesticides on the groundwater protection list applied in California from 1991 to 1998. These pesticides are the currently registered active ingredients listed in the California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6800(a) and norflurazon. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Acres Treated in California with Pesticides on the Groundwater Protection List

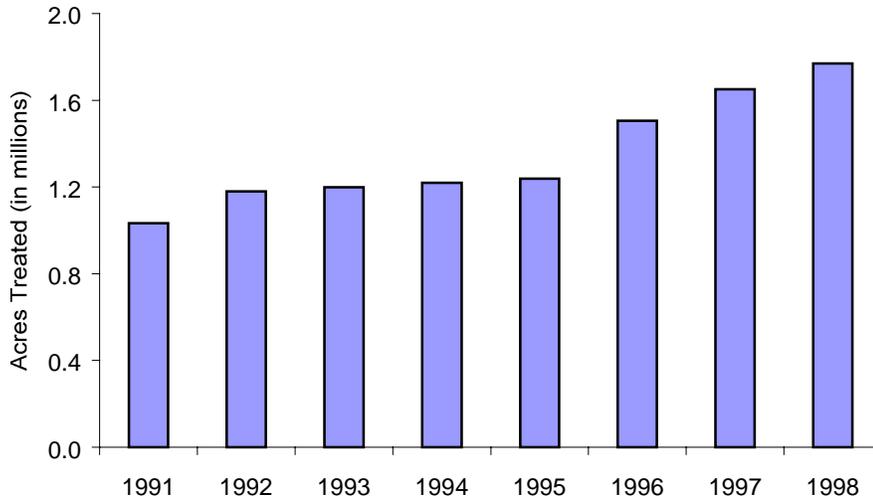


Figure 4B. The reported cumulative acres treated in California from 1991 to 1998 with pesticides on the groundwater protection list. These pesticides are the currently registered active ingredients listed in the California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6800(a) and norflurazon. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Table 7A. The reported pounds of pesticides on the toxic air contaminants list applied in California from 1991 to 1998. These pesticides are the currently registered active ingredients listed in the California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6860. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
1,3-DICHLOROPROPENE	13,555	23,998	47,694	2,122	409,821	1,956,846	2,400,930	2,911,385
2,4-D	23,197	26,098	26,462	27,544	23,995	22,089	10,227	3,868
2,4-D, 2-ETHYLHEXYL ESTER	4,966	112	12	71	278	10	1,313	13,750
2,4-D, ALKANOLAMINE SALTS (ETHANOL AND ISOPROPNOL AMINES)	20,469	32,471	35,378	28,863	30,642	27,954	25,684	29,061
2,4-D, BUTOXYETHANOL ESTER	27,554	36,014	47,601	67,414	31,743	38,567	13,263	12,140
2,4-D, BUTOXYPROPYL ESTER	584	1,674	1,921	1,166	224	61	13	569
2,4-D, BUTYL ESTER	0	2	0	1	39	0	0	2,169
2,4-D, DIETHANOLAMINE SALT	3,695	5,950	1,572	714	1,938	3,003	24,809	14,965
2,4-D, DIMETHYLAMINE SALT	260,635	366,038	350,293	399,046	454,658	468,771	428,874	422,673
2,4-D, DODECYLAMINE SALT	1,347	86	0	5	16	8	58	75
2,4-D, HEPTYLAMINE SALT	0	0	0	0	86	<1	0	
2,4-D, ISOCTYL ESTER	4,022	2,545	2,659	1,212	13,466	7,822	60,356	46,603
2,4-D, ISOPROPYL ESTER	2,635	3,362	4,540	4,508	5,077	5,090	6,543	7,510
2,4-D, N-OLEYL-1,3-PROPYLENEDIAMINE SALT	8,047	1,708	670	672	37	35	0	3
2,4-D, OCTYL ESTER	0	0	0	0	15	0	0	
2,4-D, PROPYL ESTER	3,303	3,394	2,515	2,326	2,032	1,774	1,575	999
2,4-D, TETRADECYLAMINE SALT	313	20	0	1	4	2	13	17
2,4-D, TRIETHYLAMINE SALT	78,395	117,451	107,782	121,241	105,656	93,876	34,610	5,688
2,4-D, TRIISOPROPYLAMINE SALT	74	20	10	24	6	2	3	5
ACROLEIN	204,625	227,022	298,535	336,993	362,773	322,578	341,245	264,207
ARSENIC ACID	98,800	72,182	13,014	27,571	37,206	53,777	59,835	52,558
ARSENIC PENTOXIDE	201,059	262,017	150,200	86,445	83,814	205,089	64,372	50,899
ARSENIC TRIOXIDE	<1	<1	<1	<1	<1	<1	<1	1
CAPTAN	253,452	295,542	483,507	608,658	734,314	918,588	799,878	1,542,664
CAPTAN, OTHER RELATED	7,461	7,671	12,093	14,890	17,831	21,729	19,448	36,029
CARBARYL	935,071	775,078	773,404	820,787	835,811	809,794	753,801	426,893
CHLORINE	354,459	417,665	466,825	750,653	2,815,119	330,017	423,469	422,252
CHROMIC ACID	279,852	364,900	209,555	120,822	117,092	286,521	89,931	71,109
DDVP	5,466	5,224	3,331	4,798	6,063	13,097	13,636	13,998
ETHYLENE OXIDE	29	7	1,471	3	0	0	0	31
FORMALDEHYDE	271,663	5,094	13,322	11,864	153,519	334,548	403,824	305,297
HYDROGEN CHLORIDE	745	122	32	206	224	1,938	129	762
LINDANE	8,590	8,208	9,715	5,281	4,507	4,576	5,388	6,293
MANCOZEB	283,715	336,371	446,086	464,924	659,240	567,866	526,364	987,270
MANEB	352,155	464,469	625,326	912,903	1,257,122	1,328,318	1,081,124	1,596,876
META-CRESOL	3	3	5	2	2	3	6	8
METHANOL	2,511	768	1,920	100	27	0	0	
METHOXYCHLOR	761	595	1,412	692	1,049	484	358	566
METHOXYCHLOR, OTHER RELATED	54	46	52	90	139	62	44	11
METHYL BROMIDE	17,578,480	18,051,774	14,115,900	16,607,324	17,165,964	16,022,069	15,663,832	13,569,875
NAPHTHALENE	1	1	1	1	<1	0	1	333
PARA-DICHLOROBENZENE	108	82	37	3	2	4	3	219
PARATHION	675,456	33,913	4,665	6,104	13,642	14,050	5,187	5,766
PCNB	90,070	89,999	87,672	91,601	109,755	83,087	89,548	88,036
PCP	196,252	107,946	91,123	40	3	3	8	33
PCP, OTHER RELATED	22,826	12,555	10,596	5	<1	<1	1	2

Table 7A continued. The reported pounds of pesticides on the toxic air contaminants list applied in California from 1991 to 1998.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
PCP, SODIUM SALT	10	0	2,361	0	0	0	0	2
PCP, SODIUM SALT, OTHER RELATED	1	0	329	0	0	0	0	
PHOSPHORUS	159	167	132	29	34	58	14	12
POTASSIUM PERMANGANATE	0	238	0	0	0	0	0	243
PROPOXUR	4,374	3,187	2,674	2,667	3,296	1,341	1,760	1,604
PROPYLENE OXIDE	111,919	131,091	34,764	41,815	131,593	224,495	198,559	198,595
S,S,S-TRIBUTYL PHOSPHOROTRITHIOATE	798,052	757,765	920,837	892,441	866,726	760,809	626,684	440,382
SODIUM CYANIDE	197	120	1,597	1,754	1,347	1,338	2,197	3,280
SODIUM DICHROMATE	0	0	0	0	0	180,478	182,185	122,647
TRIFLURALIN	1,352,819	1,087,377	1,193,363	1,261,342	1,380,785	1,143,695	1,191,780	1,219,810
XYLENE	46,843	30,216	45,137	29,009	17,965	12,627	8,511	5,366
Total	24,590,829	24,170,357	20,650,102	23,758,749	27,856,695	26,268,950	25,561,393	24,905,410

Table 7B. The reported cumulative acres treated in California from 1991 to 1998 with pesticides on the toxic air contaminants list. These pesticides are the currently registered active ingredients listed in the California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6860. Use includes primarily agricultural applications. The total for acres treated is less than the sum of acres treated for all active ingredients because some products contain more than one active ingredient. Data from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
1,3-DICHLOROPROPENE	91	447	823	33	4,174	17,223	22,193	27,059
2,4-D	115,952	167,271	156,294	156,563	151,453	137,230	50,709	11,649
2,4-D, 2-ETHYLHEXYL ESTER	3,552	28	80	65	385	160	729	6,867
2,4-D, ALKANOLAMINE SALTS (ETHANOL AND ISOPROPANOL AMINES)	13,147	29,351	33,132	26,138	22,298	21,872	20,055	22,117
2,4-D, BUTOXYETHANOL ESTER	22,483	31,154	35,573	46,343	29,933	35,599	13,504	13,798
2,4-D, BUTOXYPROPYL ESTER	5	52	63	100	5	2	51	105
2,4-D, BUTYL ESTER	0	<1	0	<1	<1	0	0	307
2,4-D, DIETHANOLAMINE SALT	4,177	24,143	1,710	933	4,683	8,721	88,149	58,239
2,4-D, DIMETHYLAMINE SALT	258,308	395,276	388,083	474,599	524,146	540,728	527,870	477,967
2,4-D, DODECYLAMINE SALT	1,891	2	0	<1	<1	<1	76	82
2,4-D, HEPTYLAMINE SALT	0	0	0	0	18	<1	0	
2,4-D, ISOCTYL ESTER	1,448	1,595	220	379	3,497	5,163	35,045	29,179
2,4-D, ISOPROPYL ESTER	28,741	48,471	61,243	63,244	72,878	69,081	87,492	101,141
2,4-D, N-OLEYL-1,3-PROPYLENEDIAMINE SALT	10,956	2,493	1,475	449	36	26	0	2
2,4-D, OCTYL ESTER	0	0	0	0	<1	0	0	
2,4-D, PROPYL ESTER	44,463	40,929	33,904	28,812	22,655	23,846	21,479	14,356
2,4-D, TETRADECYLAMINE SALT	1,891	2	0	<1	<1	<1	76	82
2,4-D, TRIETHYLAMINE SALT	103,570	161,126	149,513	152,474	146,454	131,679	46,600	7,381

Table 7B continued. The reported cumulative acres treated in California from 1991 to 1998 with pesticides on the toxic air contaminants list.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
2,4-D, TRISOPROPYLAMINE SALT	<1	<1	<1	<1	<1	<1	<1	0
ACROLEIN	302	724	243	888	3,190	2,462	1,514	292
ARSENIC ACID	<1	<1	<1	<1	<1	<1	<1	0
ARSENIC PENTOXIDE	<1	103	<1	660	<1	<1	<1	0
ARSENIC TRIOXIDE	<1	<1	<1	<1	<1	<1	<1	0
CAPTAN	127,668	134,103	212,563	244,164	295,860	381,989	347,631	602,684
CAPTAN, OTHER RELATED	123,826	132,927	210,620	244,097	295,831	381,989	347,235	602,585
CARBARYL	290,073	322,588	285,046	291,147	305,452	312,058	292,721	197,664
CHLORINE	2,800	700	4	<1	290	<1	1,005	1,329
CHROMIC ACID	<1	103	<1	660	<1	<1	<1	0
DDVP	5,530	2,960	683	1,888	1,887	1,499	2,596	3,692
ETHYLENE OXIDE	<1	<1	<1	<1	0	0	0	194
FORMALDEHYDE	106	68	132	15	137	234	12	126
HYDROGEN CHLORIDE	<1	<1	<1	1	<1	1	<1	16
LINDANE	21,409	21,737	26,921	22,984	19,380	25,352	36,573	32,650
MANCOZEB	148,643	186,333	262,758	273,836	405,494	351,801	284,134	682,979
MANEB	216,990	290,011	373,116	512,009	652,122	731,079	624,123	942,083
META-CRESOL	2,052	931	1,585	930	1,279	1,309	3,488	1,407
METHANOL	10	240	5	<1	<1	0	0	
METHOXYCHLOR	320	679	233	220	30	19	131	194
METHOXYCHLOR, OTHER RELATED	99	187	1	70	5	9	52	5
METHYL BROMIDE	103,092	124,739	89,220	106,694	107,933	96,507	103,068	90,107
NAPHTHALENE	<1	<1	<1	<1	<1	0	<1	0
PARA- DICHLOROBENZENE	<1	<1	<1	<1	<1	<1	<1	10
PARATHION	423,068	24,579	2,459	3,404	6,688	5,099	2,071	2,592
PCNB	62,867	63,638	61,114	55,371	53,079	44,187	29,169	39,090
PCP	1	1	<1	2	<1	15	4	190
PCP, OTHER RELATED	1	1	<1	2	<1	15	4	15
PCP, SODIUM SALT	<1	0	<1	0	0	0	0	20
PCP, SODIUM SALT, OTHER RELATED	<1	0	<1	0	0	0	0	
PHOSPHORUS	10,479	15,047	7,751	3,435	1,908	69	790	965
POTASSIUM PERMANGANATE	0	<1	0	0	0	0	0	20
PROPOXUR	2	8	<1	14	5	9	73	45
PROPYLENE OXIDE	<1	10	<1	<1	<1	<1	<1	0
S,S,S-TRIBUTYL PHOSPHOROTRITHIOATE	569,961	574,170	652,163	615,978	604,586	531,052	437,505	305,306
SODIUM CYANIDE	191,856	18,000	<1	82,520	6,040	3,020	84,800	53,285
SODIUM DICHROMATE	0	0	0	0	0	<1	<1	0
TRIFLURALIN	1,186,916	1,039,487	1,195,142	1,160,072	1,282,997	1,086,892	1,131,033	1,083,219
XYLENE	60,307	44,308	48,402	28,673	28,870	24,221	13,568	11,327
Total	3,896,070	3,584,293	3,905,956	4,177,591	4,585,244	4,420,501	4,137,785	4,727,895

Pounds of Pesticides on the Toxic Air Contaminants List Reported Used in California

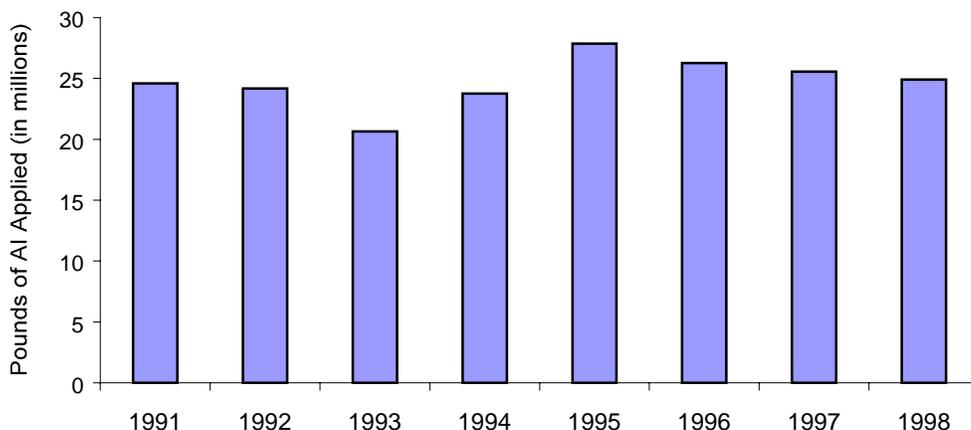


Figure 5A. The reported pounds of pesticides on the toxic air contaminants list applied in California from 1991 to 1998. These pesticides are the currently registered active ingredients listed in the California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6860. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Acres Treated in California with Pesticides on the Toxic Air Contaminants List

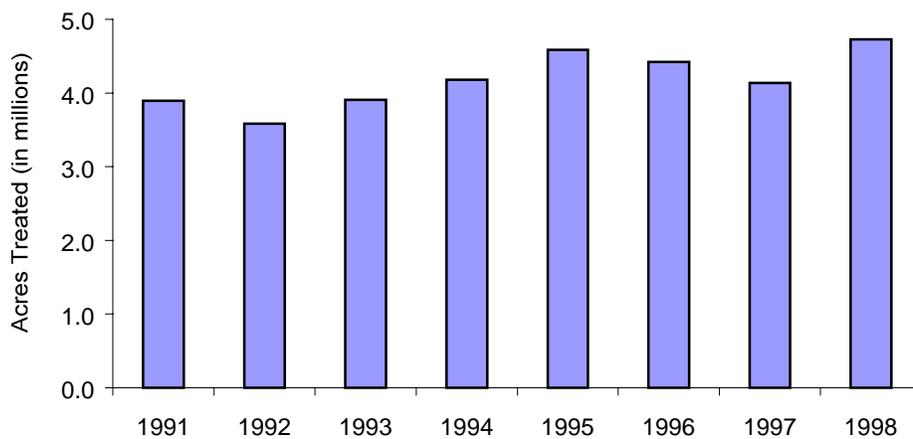


Figure 5B. The reported cumulative acres treated in California from 1991 to 1998 with pesticides on the toxic air contaminants list. These pesticides are the currently registered active ingredients listed in the California Code of Regulations, Title 3, Division 6, Chapter 4, Subchapter 1, Article 1, Section 6860. Use includes primarily agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Table 8A. The reported pounds of oil pesticides. As a broad group, oil pesticides and other petroleum distillates are on U.S. EPA’s list of B2 carcinogens or the State’s Proposition 65 list of chemicals “known to cause cancer.” However, these classifications do not distinguish among oil pesticides that may not qualify as carcinogenic due to their degree of refinement. Many such oil pesticides also serve as alternatives to high-toxicity chemicals. For this reason, oil pesticide data was classified separately in this report. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
MINERAL OIL	1,441,497	2,607,034	3,156,693	3,884,948	3,785,414	5,110,235	5,810,235	5,286,094
PETROLEUM DERIVATIVE RESIN	2,342	2,126	1,117	551	4	94	15	6
PETROLEUM DISTILLATES	2,571,237	2,763,671	3,200,539	2,279,777	2,459,518	1,711,402	1,798,960	1,612,875
PETROLEUM DISTILLATES, AROMATIC	142,595	103,146	81,291	64,529	31,535	14,631	13,961	35,085
PETROLEUM DISTILLATES, REFINED	91	10,842	21,107	63,524	45,967	38,396	45,094	60,337
PETROLEUM HYDROCARBONS	281,060	235,217	835,276	370,908	662,568	862,761	788,309	514,308
PETROLEUM NAPHTHENIC OILS	165	101	28	320	0	12	1	9
PETROLEUM OIL, UNCLASSIFIED	17,732,970	18,632,896	21,757,068	19,674,078	18,688,068	20,063,969	24,633,269	21,723,758
PETROLEUM SULFONATES	2	3	1	1	<1	4	1	<1
Total	22,171,959	24,355,035	29,053,120	26,338,637	25,673,073	27,801,503	33,089,845	29,232,472

Table 8B. The reported cumulative acres treated in California from 1991 to 1998 with oil pesticides. (See qualifying comments on U.S. EPA B2 carcinogen and Proposition 65 listing with Table 8A.) Uses include primarily agricultural applications. Data are from the Department of Pesticide Regulation’s Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
MINERAL OIL	777,118	873,871	841,244	795,403	825,003	655,058	635,013	615,564
PETROLEUM DERIVATIVE RESIN	1,579	482	2,089	1,321	3	191	50	13
PETROLEUM DISTILLATES	194,740	303,898	304,055	340,671	440,375	378,714	308,206	279,400
PETROLEUM DISTILLATES, AROMATIC	85,482	70,888	73,663	66,424	53,211	12,324	19,003	2,153
PETROLEUM DISTILLATES, REFINED	8	540	1,809	4,173	3,976	5,145	6,146	6,162
PETROLEUM HYDROCARBONS	446,726	403,588	525,361	429,456	724,415	759,453	714,126	640,560
PETROLEUM NAPHTHENIC OILS	369	509	12	540	0	73	0	50
PETROLEUM OIL, UNCLASSIFIED	601,456	597,185	631,281	603,690	703,859	663,575	811,902	753,904
PETROLEUM SULFONATES	1	<1	0	0	<1	<1	<1	0
Total	2,103,426	2,250,273	2,379,256	2,241,119	2,750,682	2,474,361	2,494,361	2,297,756

Pounds of Oil Pesticides Reported Used in California

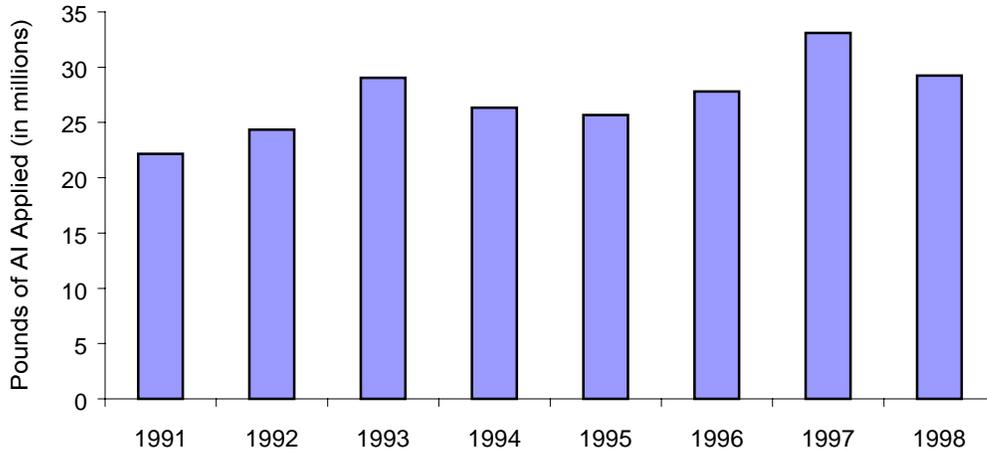


Figure 6A. The reported pounds of oil pesticides applied in California from 1991 to 1998. Some of these pesticides include chemicals listed in Proposition 65 as carcinogens. However, most are considered reduced-risk pesticides. Use includes both agricultural and reportable non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Acres Treated in California by Oil Pesticides

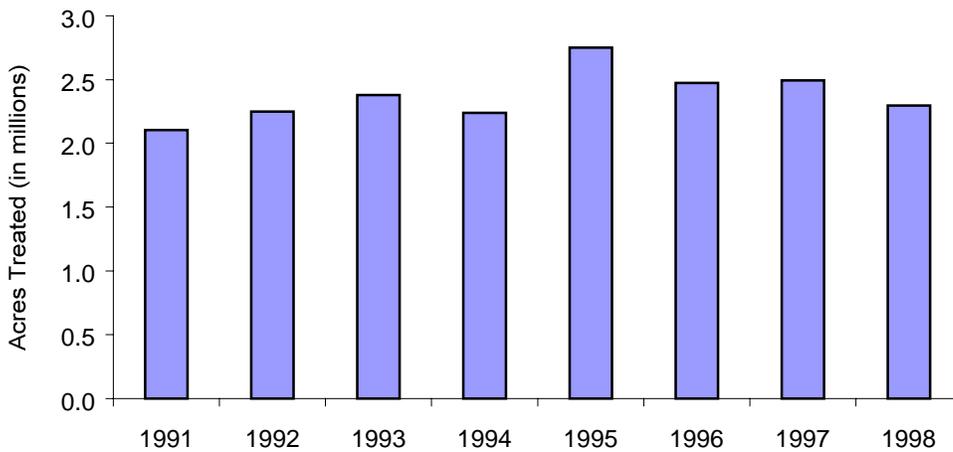


Figure 6B. The reported cumulative acres treated in California from 1991 to 1996 with oil pesticides. Some of these pesticides include chemicals listed in Proposition 65 as carcinogens. However, most are considered reduced-risk pesticides. Use includes primarily agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Table 9A. The reported pounds of reduced-risk pesticides applied in California. These active ingredients are contained in pesticide products that have been given reduced risk status by U.S. EPA. Use is given for each year from 1991 to 1998. Use includes both agricultural and non-agricultural applications. Blank entries appear during years before the pesticide was registered. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
AZOXYSTROBIN							23,851	69,232
CARBO METHOXY ETHER CELLULOSE, SODIUM SALT				92	184	22,994	1,032	723
CINNAMALDEHYDE							<1	<1
CYPRODINIL								48,417
FIPRONIL							<1	1
FLUDIOXONIL							0	551
HEXAFLUMURON					<1	<1	<1	2
IRON PHOSPHATE							0	66
MEFENOXAM						43	29,078	59,960
METHYL ANTHRANILATE						6	184	49
POTASSIUM BICARBONATE							28	65,909
PYRIPROXYFEN							3,220	6,072
SODIUM BICARBONATE	250	0	29	0	0	0	0	0
SPINOSAD							10,146	29,717
TEBUFENOZIDE					7,955	3,463	5,300	9,178
Total	250	0	29	92	8,138	26,506	72,838	289,879

Table 9B. The reported cumulative acres treated in California with each reduced-risk pesticide. These active ingredients are contained in pesticide products that have been given reduced risk status by U.S. EPA. Use is given for each year from 1991 to 1998. Use includes primarily agricultural applications. Blank entries appear during years before the pesticide was registered. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
AZOXYSTROBIN							28,421	340,507
CARBO METHOXY ETHER CELLULOSE, SODIUM SALT				61	113	235	328	83
CINNAMALDEHYDE							<1	<1
CYPRODINIL								122,772
FIPRONIL							<1	<1
FLUDIOXONIL							0	<1
HEXAFLUMURON					<1	<1	<1	<1
IRON PHOSPHATE							0	205
MEFENOXAM						40	153,858	360,994
METHYL ANTHRANILATE						<1	<1	<1
POTASSIUM BICARBONATE							11	34,010
PYRIPROXYFEN							60,164	64,648
SODIUM BICARBONATE	<1	0	<1	0	0	0	0	0
SPINOSAD							128,313	384,192
TEBUFENOZIDE					32,418	14,449	28,620	53,705
Total	<1	0	<1	61	32,531	14,724	399,715	1,361,117

Pounds of Reduced-Risk Pesticides Reported Used in California

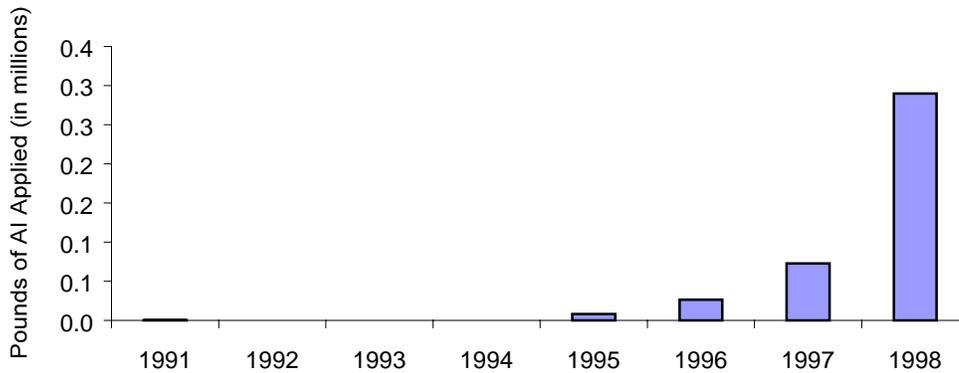


Figure 7A. The pounds of reduced-risk pesticide active ingredients reported in California. These pesticides have been given reduced risk status by U.S. EPA. Use is given for each year from 1991 to 1998. Use includes both agricultural and non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Acres Treated in California by Reduced-Risk Pesticides

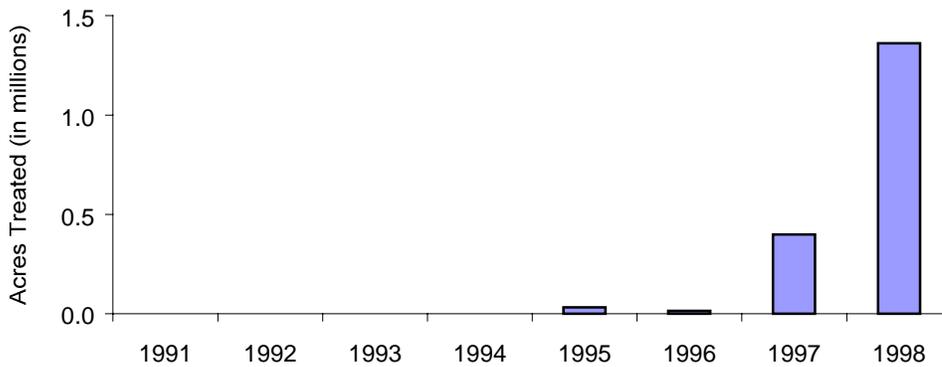


Figure 7B. The reported cumulative acres treated in California with each reduced-risk pesticide. These pesticides have been given reduced risk status by U.S. EPA. Use is given for each year from 1991 to 1998. Use includes primarily agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Table 10A. The reported pounds of biopesticides applied in California. Biopesticides include microorganisms and naturally occurring compounds, or compounds essentially identical to naturally occurring compounds, that are not toxic to the target pest (such as pheromones). Use is given for each year from 1991 to 1998. Use includes both agricultural and non-agricultural applications. Blank entries appear during years before the pesticide was registered. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
(E)-4-TRIDECEN-1-YL-ACETATE	<1	<1	13	3	12	140	76	65
(E)-5-DECENOL					12	71	737	176
(E)-5-DECENYL ACETATE					58	339	3,508	844
(R,Z)-5-(1-DECENYL) DIHYDRO-2-(3H)-FURANONE								<1
(Z)-4-TRIDECEN-1-YL-ACETATE	<1	7	4	<1	<1	4	2	2
(Z,E)-7,11-HEXADECADIEN-1-YL ACETATE	81	80	16	3	29	2	1	46
(Z,Z)-7,11-HEXADECADIEN-1-YL ACETATE	8	35	1	3	2	2	1	46
1-DECANOL	<1	1	4	1	1	1	<1	<1
AGROBACTERIUM RADIOBACTER					6	14	28	20
AMPELOMYCES QUISQUALIS							9	40
BACILLUS SPHAERICUS, SEROTYPE H-5A5B, STRAIN 2362							1,298	4,886
BACILLUS SUBTILIS GB03	0	0	0	0	0	0	<1	<1
BACILLUS THURINGIENSIS (BERLINER)			1,071	476	1,562	536	179	751
BACILLUS THURINGIENSIS (BERLINER), SUBSP. AIZAWAI, GC-91 PROTEIN		0	711	1,936	5,115	6,520	7,406	4,273
BACILLUS THURINGIENSIS (BERLINER), SUBSP. AIZAWAI, SEROTYPE H-7	0	2	802	4,935	8,050	10,145	14,210	10,854
BACILLUS THURINGIENSIS (BERLINER), SUBSP. ISRAELENSIS, SEROTYPE H-14	3,391	6,070	9,236	4,619	6,827	4,059	4,423	12,963
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, SEROTYPE 3A,3B			32,834	39,667	39,550	25,890	29,825	20,535
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, STRAIN EG 2348	0	0	0	2,714	3,391	3,056	1,448	4,548
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, STRAIN EG2371	1,564	3,327	8,291	7,042	7,466	3,468	2,752	1,633
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, STRAIN SA-11	15,805	10,035	7,865	6,416	8,643	8,689	11,676	9,603
BACILLUS THURINGIENSIS (BERLINER), SUBSP. SAN DIEGO							26	8
BACILLUS THURINGIENSIS SUBSPECIES KURSTAKI STRAIN BMP 123						0	0	6
BACILLUS THURINGIENSIS SUBSPECIES KURSTAKI, GENETICALLY ENGINEERED STRAIN EG7841 LEPIDOPTERAN ACTIVE TOXIN						257	15,619	12,522
BACILLUS THURINGIENSIS, SUBSP. KURSTAKI, STRAIN HD-1						<1	57	20,771

Table 10A continued. The reported pounds of biopesticides applied in California. Biopesticides include microorganisms and naturally occurring compounds, or compounds essentially identical to naturally occurring compounds, that are not toxic to the target pest (such as pheromones).

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
BACILLUS THURINGIENSIS, VAR. KURSTAKI DELTA ENDOTOXINS CRY 1A(C) AND CRY 1C (GENETICALLY ENGINEERED) ENCAPSULATED IN PSEUDOMONAS FLUORESCENS (KILLED)						3,663	29,895	12,634
BEAUVERIA BASSIANA STRAIN GHA					0	1	573	1,243
CANDIDA OLEOPHILA ISOLATE I-182						0	305	103
CLARIFIED HYDROPHOBIC EXTRACT OF NEEM OIL	0	0	0	0	0	3,196	13,792	55,005
DIHYDRO-5-HEPTYL-2(3H)-FURANONE	<1	0	<1	<1	<1	<1	<1	<1
DIHYDRO-5-PENTYL-2(3H)-FURANONE	<1	0	<1	<1	<1	<1	<1	<1
E,E-8,10-DODECADIEN-1-OL							431	220
E-11-TETRADECEN-1-YL ACETATE	0	0	0	0	0	0	3	2
E-8-DODECENYL ACETATE	18	503	7	25	38	27	46	57
ENCAPSULATED DELTA ENDOTOXIN OF BACILLUS THURINGIENSIS VAR. KURSTAKI IN KILLED PSEUDOMONAS FLUORESCENS		1,823	7,959	14,341	14,535	30,809	43,815	35,129
ENCAPSULATED DELTA ENDOTOXIN OF BACILLUS THURINGIENSIS VAR. SAN DIEGO IN KILLED PSEUDOMONAS FLUORESCENS				0	7	13	0	34
GLIOCLADIUM VIRENS GL-21 (SPORES)			0	0	15	144	156	104
LAGENIDIUM GIGANTEUM (CALIFORNIA STRAIN)				87	151	<1	134	859
METARHIZIUM ANISOPLIAE, VAR. ANISOPLIAE, STRAIN ESF1						<1	3	37
MYROTHECIUM VERRUCARIA, DRIED FERMENTATION SOLIDS & SOLUBLES	0	0	0	0	0	0	1,097	8,496
NOSEMA LOCUSTAE SPORES		<1	<1	0	0	0	<1	<1
PSEUDOMONAS FLUORESCENS, STRAIN A506					206	3,044	3,639	3,660
PSEUDOMONAS SYRINGAE STRAIN ESC-11					0	0	0	34
PSEUDOMONAS SYRINGAE, STRAIN ESC-10				0	0	15	<1	<1
STREPTOMYCES GRISEOVIRIDIS STRAIN K61						1	2	5
TRICHODERMA HARZIANUM RIFAI STRAIN KRL-AG2							39	60
Z-11-TETRADECEN-1-YL ACETATE	0	0	0	0	0	0	<1	<1
Z-8-DODECENOL	3	76	1	4	6	4	7	10
Z-8-DODECENYL ACETATE	307	8,729	125	435	659	447	777	0
Total	51,189	64,674	69,088	82,935	97,433	104,882	187,995	222,283

Table 10B. The reported cumulative acres treated in California with each biopesticide. Biopesticides includes microorganisms and naturally occurring compounds, or compounds essentially identical to naturally occurring compounds, that are not toxic to the target pest (such as pheromones). Use is given for each year from 1991 to 1998. Use includes primarily agricultural applications. The total for acres treated is less than the sum of acres for all active ingredients because some products contain more than one active ingredient. Blank entries appear during years before the pesticide was registered. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
(E)-4-TRIDECEN-1-YL-ACETATE	<1	812	783	70	706	5,428	3,574	2,886
(E)-5-DECENOL					725	1,434	2,187	1,414
(E)-5-DECENYL ACETATE					725	1,434	2,187	1,414
(R,Z)-5-(1-DECENYL) DIHYDRO-2-(3H)-FURANONE	0	0	0	0	0	0	0	1
(Z)-4-TRIDECEN-1-YL-ACETATE	<1	812	783	70	706	5,428	3,574	2,886
(Z,E)-7,11-HEXADECADIEN-1-YL ACETATE	16,184	14,195	2,785	588	5,535	2,295	279	82
(Z,Z)-7,11-HEXADECADIEN-1-YL ACETATE	9,205	10,210	1,350	588	2,120	2,295	279	82
1-DECANOL	0	0	0	0	0	0	0	0
AGROBACTERIUM RADIOBACTER					2,110	6,048	1,284	5,954
AMPELOMYCES QUISQUALIS							18,628	15,039
BACILLUS SPHAERICUS, SEROTYPE H-5A5B, STRAIN 2362							104	84
BACILLUS SUBTILIS GB03	0	0	0	0	0	0	0	0
BACILLUS THURINGIENSIS (BERLINER)			18,233	18,412	12,305	8,368	6,286	4,437
BACILLUS THURINGIENSIS (BERLINER), SUBSP. AIZAWAI, GC-91 PROTEIN		0	14,233	42,378	108,867	137,786	146,197	82,473
BACILLUS THURINGIENSIS (BERLINER), SUBSP. AIZAWAI, SEROTYPE H-7	0	83	7,694	46,069	68,505	84,793	109,951	86,430
BACILLUS THURINGIENSIS (BERLINER), SUBSP. ISRAELENIS, SEROTYPE H-14	2,556	8,024	3,754	1,761	738	3,357	4,289	5,242
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, SEROTYPE 3A,3B			388,663	400,394	574,228	435,707	486,699	342,525
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, STRAIN EG 2348	0	0	0	16,675	27,972	22,742	11,590	22,097
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, STRAIN EG2371	13,394	23,856	72,452	56,536	62,435	32,471	19,739	11,015
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, STRAIN SA-11	283,569	177,335	135,320	104,848	134,225	139,051	175,772	161,858

Table 10B continued. The reported cumulative acres treated in California with each biopesticide. Biopesticides includes microorganisms and naturally occurring compounds, or compounds essentially identical to naturally occurring compounds, that are not toxic to the target pest (such as pheromones).

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
BACILLUS THURINGIENSIS (BERLINER), SUBSP. SAN DIEGO							100	6
BACILLUS THURINGIENSIS SUBSPECIES KURSTAKI STRAIN BMP 123						0	0	87
BACILLUS THURINGIENSIS SUBSPECIES KURSTAKI, GENETICALLY ENGINEERED STRAIN EG7841 LEPIDOPTERAN ACTIVE TOXIN						1,377	87,123	81,541
BACILLUS THURINGIENSIS, SUBSP. KURSTAKI, STRAIN HD-1						24	2,718	202,653
BACILLUS THURINGIENSIS, VAR. KURSTAKI DELTA ENDOTOXINS CRY 1A(C) AND CRY 1C (GENETICALLY ENGINEERED) ENCAPSULATED IN PSEUDOMONAS FLUORESCENS (KILLED)						6,387	43,741	23,196
BEAUVERIA BASSIANA STRAIN GHA					0	3	1,459	2,991
CANDIDA OLEOPHILA ISOLATE I-182						0	0	0
CLARIFIED HYDROPHOBIC EXTRACT OF NEEM OIL	0	0	0	0	0	7,526	13,537	22,092
DIHYDRO-5-HEPTYL-2(3H)-FURANONE	0	0	0	0	0	0	20	0
DIHYDRO-5-PENTYL-2(3H)-FURANONE	0	0	0	0	0	0	20	0
E,E-8,10-DODECADIEN-1-OL							3,696	4,300
E-11-TETRADECEN-1-YL ACETATE	0	0	0	0	0	0	13	2,171
E-8-DODECENYL ACETATE	2,275	2,126	3,112	4,539	3,870	6,045	9,932	11,791
ENCAPSULATED DELTA ENDOTOXIN OF BACILLUS THURINGIENSIS VAR. KURSTAKI IN KILLED PSEUDOMONAS FLUORESCENS		4,268	17,826	34,056	35,755	69,222	96,678	83,238
ENCAPSULATED DELTA ENDOTOXIN OF BACILLUS THURINGIENSIS VAR. SAN DIEGO IN KILLED PSEUDOMONAS FLUORESCENS				0	4	1	0	19

Table 10B continued. The reported cumulative acres treated in California with each biopesticide. Biopesticides includes microorganisms and naturally occurring compounds, or compounds essentially identical to naturally occurring compounds, that are not toxic to the target pest (such as pheromones).

Active Ingredient	1991	1992	1993	1994	1995	1996	1997	1998
GLIOCLADIUM VIRENS GL-21 (SPORES)			0	0	1	21	14	29
LAGENIDIUM GIGANTEUM (CALIFORNIA STRAIN)				0	0	<1	0	0
METARHIZIUM ANISOPLIAE, VAR. ANISOPLIAE, STRAIN ESF1						0	0	0
MYROTHECIUM VERRUCARIA, DRIED FERMENTATION SOLIDS & SOLUBLES	0	0	0	0	0	0	104	1,514
NOSEMA LOCUSTAE SPORES		0	13	0	0	0	0	7
PSEUDOMONAS FLUORESCENS, STRAIN A506					990	16,951	26,617	29,656
PSEUDOMONAS SYRINGAE STRAIN ESC-11					0	0	0	17
PSEUDOMONAS SYRINGAE, STRAIN ESC-10				0	0	0	0	0
STREPTOMYCES GRISEOVIRIDIS STRAIN K61						20	115	34
TRICHODERMA HARZIANUM RIFAI STRAIN KRL-AG2							69	369
Z-11-TETRADECEN-1-YL ACETATE	0	0	0	0	0	0	13	2,171
Z-8-DODECENOL	2,275	2,126	3,112	4,539	3,870	6,045	9,932	11,791
Z-8-DODECENYL ACETATE	2,275	2,126	3,112	4,539	3,870	6,045	9,932	
Total	787,340	659,894	670,828	731,855	1,043,230	995,437	1,272,516	1,207,251

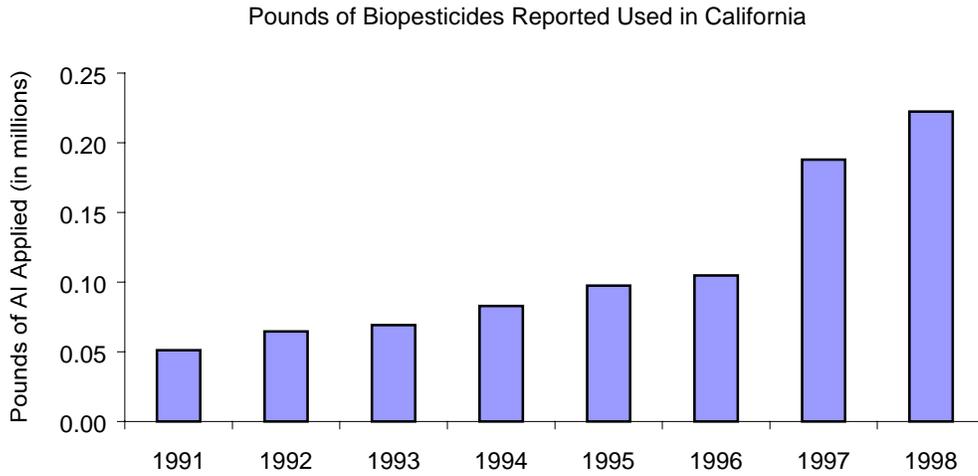


Figure 8A. The pounds of biopesticides reported in California. Biopesticides include primarily microorganisms and pheromones. Use is given for each year from 1991 to 1998. Use includes both agricultural and non-agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable errors removed.

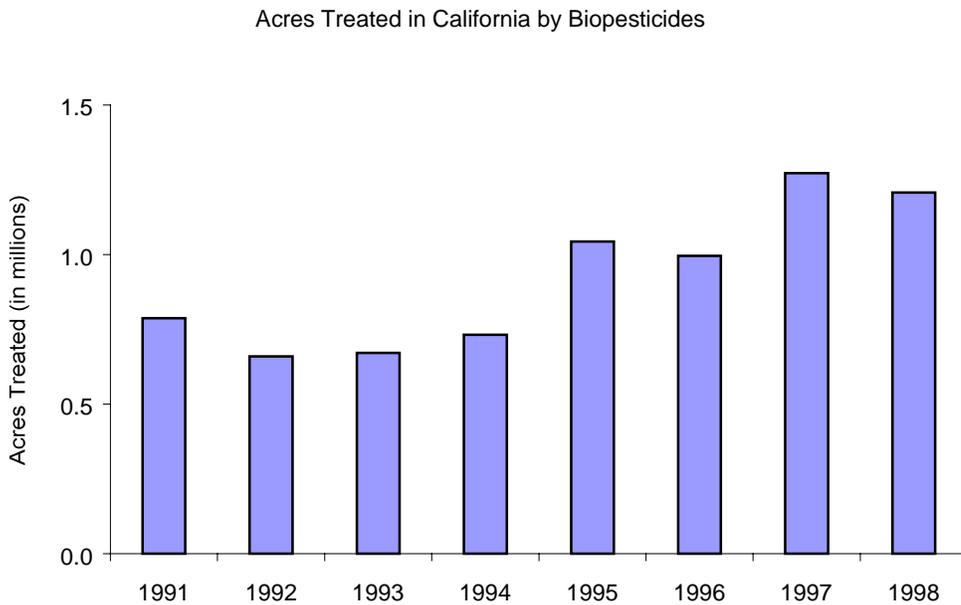


Figure 8B. The reported cumulative acres treated in California with each biopesticide. Biopesticides include primarily microorganisms and pheromones. Use is given for each year from 1991 to 1998. Use includes primarily agricultural applications. Data are from the Department of Pesticide Regulation's Pesticide Use Reports with probable outliers removed.