

Table 18: The reported cumulative acres treated with pesticides that are biopesticides. Biopesticides include microorganisms and naturally occurring compounds, or compounds similar to those found in nature that are not toxic to the target pest (such as pheromones). Use includes primarily agricultural applications. The grand 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 available at <ftp://transfer.cdpr.ca.gov/pub/outgoing/pur/data/>.

AI	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
(3S, 6R)-3-METHYL-6-ISOPROPENYL-9-DECEN-1-YL ACETATE	0	0	3	0	0	7	0	24	0	10
(3S, 6S)-3-METHYL-6-ISOPROPENYL-9-DECEN-1-YL ACETATE	0	0	3	0	0	7	0	24	0	10
(E)-4-TRIDECEN-1-YL-ACETATE	5,193	7,672	3,942	3,905	0	0	0	1,074	0	0
(E)-5-DECEN-1-OL	0	0	0	0	0	53	83	20	166	354
(E)-5-DECENOL	737	262	118	249	166	502	837	639	348	352
(E)-5-DECENYL ACETATE	737	262	118	249	166	555	920	659	514	705
(E,E)-9, 11-TETRADECADIEN-1-YL ACETATE	22	956	3	474	759	608	985	466	645	349
(E,Z)-7,9-DODECADIEN-1-YL ACETATE	0	0	0	5,168	18,104	22,856	2,479	1,623	0	0
(S)-KINOPRENE	453	575	510	490	344	506	675	750	990	689
(S)-VERBENONE	0	0	0	0	0	100	0	0	<1	<1
(Z)-11-HEXADECEN-1-YL ACETATE	116	0	1,622	0	49	0	0	0	0	26
(Z)-11-HEXADECENAL	72	0	0	0	0	0	0	0	74	145
(Z)-4-TRIDECEN-1-YL-ACETATE	5,193	7,672	3,942	3,905	0	0	0	1,074	0	0
(Z)-9-DODECENYL ACETATE	5,342	1,304	123	74	1,814	392	555	1,966	950	0
(Z,E)-7,11-HEXADECADIEN-1-YL ACETATE	0	1	93	1	0	0	0	0	0	0
(Z,Z)-7,11-HEXADECADIENAL	200	109	0	763	11,336	17,283	20,591	38,681	61,037	66,068
(Z,Z)-7,11-HEXADECADIEN-1-YL ACETATE	0	0	93	1	0	0	0	0	0	0
1,4-DIMETHYLNAPHTHALENE	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,7-DIOXASPIRO-(5,5)-UNDECANE	55	<1	6	<1	<1	30	43	25	32	0
1-METHYLCYCLOPROPENE	6	13	61	3	1	17	21	14	10	6
1-NAPHTHALENEACETAMIDE	927	870	607	408	315	393	343	394	257	338
1-OCTEN-3-OL	0	0	0	0	0	0	0	<1	<1	0
2,4-DECADIENOIC ACID, ETHYL ESTER, (2E,4Z)-	0	0	0	0	0	0	0	179	3,246	1,308
2-METHYL-1-BUTANOL	0	0	0	0	0	0	<1	<1	<1	<1
3,13 OCTADECADIEN-1-YL ACETATE	0	85	0	50	131	0	<1	0	10	25
3,7-DIMETHYL-6-OCTEN-1-OL	0	67	349	1,531	788	2,220	3,939	3,545	3,111	4,331
ACETIC ACID	10	2	226	110	162	3,165	3,114	10,301	15,775	10,437
AGROBACTERIUM RADIOBACTER	555	217	215	362	324	852	624	664	806	604

Table 18: (continued) The reported cumulative acres treated with pesticides that are biopesticides. Biopesticides include microorganisms and naturally occurring compounds, or compounds similar to those found in nature that are not toxic to the target pest (such as pheromones).

AI	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AGROBACTERIUM RADIOBACTER, STRAIN KI026	366	1,935	5,086	81	19	4,947	9,016	754	745	<1
ALLYL ISOTHIOCYANATE	0	0	0	0	0	<1	0	0	0	<1
ALMOND, BITTER	2,068	87	471	74	412	271	88	68	73	0
AMINO ETHOXY VINYL GLYCINE HYDROCHLORIDE	9,238	10,253	5,611	10,179	11,108	14,991	16,371	17,666	20,248	14,174
AMMONIUM BICARBONATE	55	<1	6	<1	<1	30	43	25	32	0
AMMONIUM NITRATE	503,230	643,869	679,675	726,836	815,380	867,336	1,085,578	953,175	987,263	882,120
AMMONIUM NONANOATE	0	0	0	0	0	0	239	284	452	443
AMPELOMYCES QUISQUALIS	14	0	22	2	0	0	0	0	0	0
ASPERGILLUS FLAVUS STRAIN AF36	0	0	0	0	260	48,833	89,337	147,011	159,586	183,128
AUREOBASIDIUM PULLULANS STRAIN DSM 14940	0	0	0	0	0	0	254	2,823	1,569	5,376
AUREOBASIDIUM PULLULANS STRAIN DSM 14941	0	0	0	0	0	0	254	2,823	1,569	5,376
AZADIRACHTIN	91,385	86,813	82,652	71,628	69,621	98,803	113,976	159,397	193,929	174,750
BACILLUS AMYLOLIQUEFACIENS STRAIN D747	0	0	0	0	0	2,337	29,684	41,678	38,545	57,340
BACILLUS FIRMIUS (STRAIN I-1582)	0	0	0	0	0	0	0	12	45	41
BACILLUS POPILLIAE	0	0	0	0	0	0	<1	<1	<1	<1
BACILLUS PUMILUS, STRAIN QST 2808	79,795	91,795	75,509	72,582	84,138	76,229	68,102	83,406	89,435	83,149
BACILLUS SPHAERICUS, SEROTYPE H-5A5B, STRAIN 2362	<1	<1	<1	9	<1	231	38	110	118	233
BACILLUS SUBTILIS GB03	2	5	2	<1	6	<1	20	302	467	613
BACILLUS SUBTILIS MBI600	0	0	0	0	0	2	<1	0	0	165
BACILLUS SUBTILIS VAR. AMYLOLIQUEFACIENS STRAIN FZB24	0	0	0	0	0	406	1,702	3,516	4,328	152
BACILLUS THURINGIENSIS (BERLINER)	1,129	41	82	127	877	292	258	91	249	250
BACILLUS THURINGIENSIS (BERLINER), SUBSP. AIZAWAI, GC-91 PROTEIN	53,040	40,440	48,842	40,395	18,657	25,262	22,511	28,611	26,155	25,221
BACILLUS THURINGIENSIS (BERLINER), SUBSP. AIZAWAI, SEROTYPE H-7	24,379	20,510	7,888	6,847	7,766	6,064	3,296	2,941	1,360	421
BACILLUS THURINGIENSIS (BERLINER), SUBSP. ISRAELENIS, SEROTYPE H-14	833	4,719	501	1,873	337	773	1,110	1,254	1,713	334

Table 18: (continued) The reported cumulative acres treated with pesticides that are biopesticides. Biopesticides include microorganisms and naturally occurring compounds, or compounds similar to those found in nature that are not toxic to the target pest (such as pheromones).

AI	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI STRAIN SA-12	35,513	21,008	19,700	10,721	8,197	15,379	9,855	10,751	10,850	13,664
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, SEROTYPE 3A,3B	16,522	8,671	7,807	2,269	3,063	1,973	818	453	145	274
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, STRAIN EG 2348	1,271	2,147	1,302	688	3,428	644	3,580	4,038	2,502	4,480
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, STRAIN EG2371	0	0	0	<1	<1	0	0	0	0	0
BACILLUS THURINGIENSIS (BERLINER), SUBSP. KURSTAKI, STRAIN SA-11	119,055	100,581	101,522	111,686	83,989	81,574	95,890	111,648	108,411	95,615
BACILLUS THURINGIENSIS (BERLINER), SUBSP. SAN DIEGO	<1	0	<1	<1	0	0	0	0	0	0
BACILLUS THURINGIENSIS SUBSPECIES KURSTAKI STRAIN BMP 123	0	1,898	310	73	0	0	0	0	0	0
BACILLUS THURINGIENSIS SUBSPECIES KURSTAKI, GENETICALLY ENGINEERED STRAIN EG7841 LEPIDOPTERAN ACTIVE TOXIN	1,225	451	62	3	200	373	5	99	116	473
BACILLUS THURINGIENSIS VAR. KURSTAKI STRAIN M-200	<1	0	<1	0	0	0	0	0	<1	0
BACILLUS THURINGIENSIS VAR. KURSTAKI, GENETICALLY ENGINEERED STRAIN EG7826	479	1,298	250	0	0	1,320	0	0	0	9
BACILLUS THURINGIENSIS, SUBSP. AIZAWAI, STRAIN ABTS-1857	43,209	49,890	41,724	37,209	35,200	41,720	36,837	68,895	70,570	86,966
BACILLUS THURINGIENSIS, SUBSP. AIZAWAI, STRAIN SD-1372, LEPIDOPTERAN ACTIVE TOXIN(S)	4,766	2,343	2,136	1,057	638	4	112	47	306	120
BACILLUS THURINGIENSIS, SUBSP. ISRAELENSIS, STRAIN AM 65-52	25	2,497	270	758	1,050	1,305	794	2,544	2,009	1,419

Table 18: (continued) The reported cumulative acres treated with pesticides that are biopesticides. Biopesticides include microorganisms and naturally occurring compounds, or compounds similar to those found in nature that are not toxic to the target pest (such as pheromones).

AI	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BACILLUS THURINGIENSIS, SUBSP. KURSTAKI, STRAIN ABTS-351, FERMENTATION SOLIDS AND SOLUBLES	133,297	134,290	120,661	162,444	152,206	164,936	147,823	192,454	152,721	192,843
BACILLUS THURINGIENSIS, SUBSP. KURSTAKI, STRAIN HD-1	20,045	15,173	20,295	18,369	15,662	15,228	10,138	7,887	11,007	2,241
BACILLUS THURINGIENSIS, VAR. KURSTAKI DELTA ENDOTOXINS CRY IA(C) AND CRY 1C (GENETICALLY ENGINEERED) ENCAPSULATED IN PSEUDOMONAS FLUORESCENS (KILLED)	<1	25	52	2	<1	10	0	<1	0	<1
BACTERIOPHAGE ACTIVE AGAINST XANTHOMONAS CAMPESTRIS PV. VESICATORIA AND PSEUDOMONAS SYRINGAE PV. TOMATO	0	0	0	0	11	25	21	12	0	0
BALSAM FIR OIL	0	0	0	<1	0	<1	<1	<1	<1	<1
BEAUVERIA BASSIANA HF 23	0	0	0	0	0	0	0	0	0	32
BEAUVERIA BASSIANA STRAIN GHA	2,481	2,091	2,188	1,686	2,702	4,011	6,857	10,900	14,356	11,103
BETA-CONGLUTIN	0	0	0	0	0	0	0	0	9,032	12,422
BUFFALO GOURD ROOT POWDER	1,694	3,227	8	138	0	25	161	200	224	114
BURKHOLDERIA SP STRAIN A396 CELLS AND FERMENTATION MEDIA	0	0	0	0	0	0	0	196	5,531	6,816
BUTYL MERCAPTAN	0	0	0	0	0	<1	0	0	0	0
CANOLA OIL	33	1,388	1,541	4,786	3,872	2,329	5,791	4,272	7,455	20,332
CAPSICUM OLEORESIN	277	528	325	388	238	576	546	1,541	1,997	2,084
CARBON DIOXIDE	<1	<1	<1	<1	26	917	5	20	19	2
CASTOR OIL	<1	4	12	<1	<1	<1	<1	<1	<1	<1
CHENOPODIUM AMBROSIOIDES NEAR AMBROSIOIDES	0	0	6,355	9,265	6,868	13,401	22,552	25,820	19,072	15,804
CHROMOBACTERIUM SUBTUGAE STRAIN PRAA4-1	0	0	0	0	0	1,424	38,138	61,191	62,467	43,340
CINNAMALDEHYDE	2	556	0	0	<1	0	0	0	0	0
CITRIC ACID	815,766	919,736	903,198	1,203,850	1,318,991	1,389,801	1,542,598	1,686,332	1,922,437	2,199,842
CLARIFIED HYDROPHOBIC EXTRACT OF NEMO OIL	71,278	64,156	47,422	42,281	40,303	42,613	60,211	85,369	87,905	65,647
CODLING MOTH GRANULOSIS VIRUS	2,141	1,487	1,139	984	3,450	3,431	4,339	4,530	3,683	2,938
CONIOTHYRIUM MINITANS STRAIN CON/M/91-08	120	0	1,204	395	1,107	1,697	4,286	4,886	6,194	4,104
CORN GLUTEN MEAL	0	3	0	0	0	0	0	0	0	0

Table 18: (continued) The reported cumulative acres treated with pesticides that are biopesticides. Biopesticides include microorganisms and naturally occurring compounds, or compounds similar to those found in nature that are not toxic to the target pest (such as pheromones).

AI	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
CORN SYRUP	1,132	7,991	14,316	12,877	27,721	27,760	15,992	14,206	18,817	18,940
COTTONSEED OIL	228,343	157,432	74,386	127,730	177,622	95,344	98,797	78,736	67,349	41,034
COYOTE URINE	0	0	0	<1	12	<1	<1	<1	<1	<1
CYTOKININ	0	0	0	0	199	2,409	352	3,290	1,966	1,910
DIALLYL DISULFIDE	0	0	0	0	0	0	0	0	0	225
DIHYDRO-5-HEPTYL-2(3H)-FURANONE	<1	<1	<1	<1	0	0	0	0	0	0
DIHYDRO-5-PENTYL-2(3H)-FURANONE	<1	<1	<1	<1	0	0	0	0	0	0
E,E-8,10-DODECADIEN-1-OL	27,784	21,585	15,300	15,283	17,872	15,879	18,241	16,548	10,772	12,874
E-11-TETRADECEN-1-YL ACETATE	6,189	5,996	5,592	5,405	1,701	4,485	4,396	489	696	369
E-8-DODECENYL ACETATE	49,086	54,242	46,757	49,591	45,656	49,300	47,640	41,405	42,615	39,608
ENCAPSULATED DELTA ENDOTOXIN OF BACILLUS THURINGIENSIS VAR. KURSTAKI IN KILLED PSEUDOMONAS FLUORESCENS	35	91	37	0	<1	<1	0	0	0	0
ESSENTIAL OILS	1	0	<1	4	<1	<1	<1	<1	<1	181
ETHYLENE	0	0	0	4	70	49	36	21	28	77
EUCALYPTUS OIL	0	0	0	2	<1	0	0	0	0	0
EUGENOL	0	0	0	0	0	<1	<1	<1	<1	<1
FARNESOL	652	422	503	1,597	826	2,227	3,940	3,547	3,121	4,331
FENUGREEK	2,068	87	471	74	412	271	88	68	73	0
FERRIC SODIUM EDTA	0	0	0	0	3,049	8,428	8,038	10,540	12,522	13,115
FISH OIL	0	0	0	0	<1	382	252	0	0	66
FORMIC ACID	1	51	10	60	1	368	5	178	1,203	60
FOX URINE	0	0	0	<1	12	<1	<1	<1	<1	<1
GAMMA AMINOBUTYRIC ACID	24,697	12,905	1,786	835	542	1,811	384	314	287	0
GARLIC	346	288	374	1,123	1,369	12,410	14,485	8,509	4,767	7,185
GERANIOL	0	67	349	1,531	788	2,220	3,939	3,545	3,111	4,331
GERMAN COCKROACH PHEROMONE	<1	<1	<1	<1	<1	<1	<1	<1	0	<1
GIBBERELLINS	455,130	490,530	513,398	491,246	504,987	529,744	548,205	530,086	522,928	543,927
GIBBERELLINS, POTASSIUM SALT	32	8	0	34	150	795	0	0	0	0
GLIOCLADIUM VIRENS GL-21 (SPORES)	5	1,090	716	1,401	1,076	3,172	5,444	5,187	7,439	7,140
GLUTAMIC ACID	24,697	12,905	1,786	835	542	1,811	384	314	287	0
GS-OMEGA/KAPPA-HXTX-HV1A (VERSITUDE PEPTIDE)	0	0	0	0	0	0	0	0	0	1
HARPIN PROTEIN	3,721	1,998	1,562	1,631	1,582	115	95	0	0	112
HEPTYL BUTYRATE	0	0	0	<1	<1	<1	<1	<1	<1	<1
HYDROGEN PEROXIDE	7,744	9,361	14,521	23,208	38,110	21,863	22,955	28,040	32,676	68,987
HYDROPRENE	2	200	82	<1	<1	2	4	<1	<1	7
IBA	44,093	3,862	150	227	1,155	1,283	962	940	489	808

Table 18: (continued) The reported cumulative acres treated with pesticides that are biopesticides. Biopesticides include microorganisms and naturally occurring compounds, or compounds similar to those found in nature that are not toxic to the target pest (such as pheromones).

AI	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
INDOLE	0	0	0	0	0	0	<1	0	<1	<1
IRON HEDTA	0	0	0	0	0	<1	2	<1	<1	<1
IRON PHOSPHATE	7,145	6,569	4,561	6,345	5,477	6,519	6,286	8,109	8,618	13,313
KAOLIN	56,911	47,438	66,781	82,636	51,099	57,755	80,075	88,044	101,628	115,411
KINOPRENE	29	20	3	4	9	3	6	25	7	3
LACTIC ACID	0	0	0	0	0	0	0	0	38	59
LACTOSE	80,366	99,526	77,363	80,273	91,507	68,442	80,242	61,764	81,390	77,746
LAGENIDIUM GIGANTEUM (CALIFORNIA STRAIN)	<1	<1	0	0	0	2	0	0	0	0
LAURYL ALCOHOL	9,358	7,782	4,705	5,495	6,443	6,652	7,807	5,681	5,725	4,674
LAVANDULYL SENECIOATE	0	4,316	2,375	7,025	11,754	6,666	5,869	6,294	8,424	18,076
LIMONENE	79,012	64,151	55,465	29,621	15,514	73,605	29,552	32,924	45,208	40,214
LINALOOL	<1	7	1	<1	<1	<1	<1	2	<1	<1
MARGOSA OIL	0	0	0	40	4,260	7,977	9,546	19,013	19,917	25,809
MENTHOL	0	0	0	2	<1	0	20	0	0	0
METARHIZIUM ANISOPLIAE STRAIN F52	0	0	0	0	0	202	133	634	122	55
METARHIZIUM ANISOPLIAE, VAR. ANISOPLIAE, STRAIN ESFI	<1	<1	0	<1	<1	0	0	0	0	0
METHOPRENE	51	42	211	4	896	<1	<1	<1	<1	42
METHYL ANTHRANILATE	298	219	550	380	2,043	215	1,092	808	895	1,463
METHYL EUGENOL	0	0	0	0	<1	0	<1	0	0	<1
METHYL NONYL KETONE	<1	<1	1	<1	0	0	<1	<1	<1	<1
METHYL SALICYLATE	1	0	<1	0	0	0	0	0	0	0
MUSCALURE	1,179	<1	739	300	68	40	50	139	41	19
MYRISTYL ALCOHOL	9,358	7,782	4,705	5,495	6,443	6,652	7,807	5,681	5,725	4,674
MYRTHECIUM VERRUCARIA, DRIED FERMENTATION SOLIDS & SOLUBLES, STRAIN AARC-0255	5,097	5,257	5,331	4,840	5,123	4,274	4,456	3,637	8,775	6,473
N6-BENZYL ADENINE	2,628	1,775	2,072	3,352	1,690	1,666	2,954	2,630	2,592	2,996
NAA	43,507	3,331	47	38	219	655	293	109	210	84
NAA, AMMONIUM SALT	11,709	10,445	9,024	9,140	9,075	11,922	10,611	9,703	9,966	778
NAA, ETHYL ESTER	<1	73	1	23	396	384	113	189	37	44
NAA, POTASSIUM SALT	41	0	0	0	0	0	6	110	35	8,819
NAA, SODIUM SALT	340	37	257	0	0	0	153	85	55	11
NATAMYCIN	0	0	0	0	0	0	7	32	35	24
NEROLIDOL	652	422	503	1,597	826	2,227	3,940	3,547	3,121	4,331
NITROGEN, LIQUIFIED	<1	<1	<1	<1	<1	<1	<1	5	0	0
NONANOIC ACID	1,275	498	703	412	828	480	2,166	2,074	1,040	648
NONANOIC ACID, OTHER RELATED	1,275	498	701	412	828	460	2,166	2,074	1,040	648

Table 18: (continued) The reported cumulative acres treated with pesticides that are biopesticides. Biopesticides include microorganisms and naturally occurring compounds, or compounds similar to those found in nature that are not toxic to the target pest (such as pheromones).

AI	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
NOSEMA LOCUSTAE SPORES	254	30	132	12	12	1,612	1,206	910	750	50
OIL OF ANISE	<1	<1	0	0	<1	<1	<1	<1	<1	<1
OIL OF BLACK PEPPER	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
OIL OF CEDARWOOD	0	0	0	15	0	0	0	0	0	<1
OIL OF CITRONELLA	<1	2	0	34	<1	0	0	<1	<1	<1
OIL OF GERANIUM	0	0	0	15	0	0	0	0	0	0
OIL OF JOJOBA	7,846	11,566	7,203	8,255	1,762	1,077	316	323	83	16
OIL OF LEMON EUCALYPTUS	0	0	0	0	<1	<1	0	0	0	0
OIL OF LEMONGRASS	0	0	0	15	0	0	0	0	0	0
OIL OF ORANGE	0	0	0	0	0	0	0	0	0	21,472
OIL OF PEPPERMINT	<1	<1	0	15	0	0	0	0	0	0
OXYPURINOL	1	0	0	0	0	0	0	6	0	0
PAECILOMYCES FUMOSOROSEUS	0	0	0	0	0	2,109	12,822	18,483	19,076	31,000
APOKA STRAIN 97										
PANTOEA AGGLOMERANS STRAIN E325, NRRL B-21856	0	0	698	55	25	50	50	0	0	0
PHENYLETHYL PROPIONATE	<1	<1	94	<1	<1	<1	<1	<1	<1	<1
PHOSPHORIC ACID, MONOPOTASSIUM SALT	0	0	<1	1,021	1,275	561	219	<1	1,837	3,142
PIPERINE	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
POLYHEDRAL OCCLUSION BODIES (OB'S) OF THE NUCLEAR POLYHEDROSIS VIRUS OF HELICOVERPA ZEA (CORN EARWORM)	0	98	254	302	14,752	1,297	337	518	1,011	4,902
POLYOXIN D, ZINC SALT	3	1,067	1,299	19,082	69,191	95,645	143,483	165,601	191,654	231,465
POTASSIUM BICARBONATE	47,299	41,899	69,155	101,283	118,285	75,356	85,879	85,701	112,047	156,199
POTASSIUM PHOSPHITE	52,370	49,951	36,665	92,671	82,205	115,741	131,552	214,918	199,571	299,081
POTASSIUM SILICATE	49	68	274	48	808	537	3,524	12,973	13,499	12,133
POTASSIUM SORBATE	230	0	2	105	0	0	0	0	0	0
PROPYLENE GLYCOL	520,537	420,161	381,957	591,117	658,896	676,470	974,892	1,069,976	1,107,471	1,119,249
PROPYLENEGLYCOL MONOLAURATE	0	0	3	12	0	0	159	76	0	0
PSEUDOMONAS FLUORESCENS, STRAIN A506	4,801	1,943	2,463	1,472	1,281	372	431	1,178	376	601
PSEUDOMONAS SYRINGAE, STRAIN ESC-10	0	0	0	3	0	0	<1	0	0	0
PURPUREOCILIUM LILACIUNUM STRAIN 251	0	0	0	1,115	2,330	3,531	20,039	25,826	32,089	26,924
PUTRESCENT WHOLE EGG SOLIDS	<1	<1	33	2	<1	<1	<1	<1	<1	<1
PYTHIUM OLIGANDRUM DV74	0	0	0	0	2	2	63	0	0	0

Table 18: (continued) The reported cumulative acres treated with pesticides that are biopesticides. Biopesticides include microorganisms and naturally occurring compounds, or compounds similar to those found in nature that are not toxic to the target pest (such as pheromones).

AI	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
QST 713 STRAIN OF DRIED BACILLUS SUBTILIS	67,563	75,619	81,252	99,317	117,865	124,702	141,246	138,006	140,713	129,968
QUILLAJA	18,584	27,814	22,595	22,949	30,225	22,907	28,538	30,232	31,107	53,330
REYNOUtria SACHALINENSIS	0	0	1,297	70,363	90,515	94,114	96,188	95,988	105,532	127,702
S-ABSCISIC ACID	0	34	502	5,195	9,498	14,974	11,645	12,761	11,202	11,471
S-METHOPRENE	30,635	47,284	47,190	65,114	61,532	87,637	49,491	53,371	102,129	76,961
SAWDUST	10	19	<1	<1	0	74	108	0	0	160
SESAME OIL	888	846	1,448	1,912	1,938	39	1	0	0	0
SILVER NITRATE	0	0	0	<1	<1	5	0	0	0	<1
SODIUM BICARBONATE	0	17	57	1	967	1,026	291	544	706	796
SODIUM CARBONATE PEROXYHYDRATE	531	219	1,453	3,666	6,554	13,797	11,764	17,035	8,051	10,137
SODIUM CHLORIDE	<1	<1	<1	<1	2	164	207	135	66	134
SODIUM LAURYL SULFATE	<1	14	<1	<1	<1	<1	<1	<1	<1	<1
SORBITOL OCTANOATE	0	0	268	0	42	0	0	0	0	0
SOYBEAN OIL	3,277	2,460	3,792	6,160	3,636	3,302	4,524	6,275	5,476	7,018
STREPTOMYCES GRISEOVIRIDIS STRAIN K61	12	<1	<1	<1	1	<1	5	10	18	5
STREPTOMYCES LYDICUS WYEC 108	96	1,910	4,009	6,998	6,399	10,367	16,071	14,050	16,546	20,474
SUCROSE OCTANOATE	0	448	930	1,172	148	1	5	10	2	12
SUGAR	7,175	4,717	4,507	1,526	5,807	4,843	1,062	1,427	452	504
THYME	<1	<1	68	<1	<1	<1	<1	<1	<1	<1
THYME OIL	0	0	0	0	0	0	0	0	<1	<1
THYMOL	52	60	50	422	10	18	1	1	1,267	485
TRICHODERMA HARZIANUM RIFAI STRAIN KRL-AG2	311	201	320	7,253	869	1,088	994	2,517	2,346	2,185
TRICHODERMA ICC 012 ASPERELLUM	0	0	0	0	86	704	604	35	251	159
TRICHODERMA ICC 080 GAMSII	0	0	0	0	86	704	604	35	251	159
TRIMETHYLAMINE	0	0	0	0	0	0	<1	0	<1	<1
ULOCLADIUM OUDEMANSII (U3 STRAIN)	0	0	0	0	0	0	19	707	406	150
VANILLIN	2,068	87	471	74	412	271	88	68	73	0
VEGETABLE OIL	144,591	231,954	211,586	292,218	457,698	266,226	350,771	243,680	311,693	405,225
XANTHINE	1	0	0	0	0	0	0	6	0	0
YEAST	4,694	4,560	3,957	1,306	5,261	3,729	325	142	220	25
YUCCA SCHIDIGERA	0	18	598	2,316	4,907	16,093	19,524	11,285	7,347	9,376
Z,E-9,12-TETRADECADIEN-1-YL ACETATE	44	0	1,622	<1	49	<1	<1	<1	<1	<1
Z-11-TETRADECEN-1-YL ACETATE	6,166	5,040	5,589	4,931	942	3,877	3,411	23	51	20
Z-8-DODECENOL	49,086	54,242	46,757	49,591	45,656	49,300	47,640	41,405	42,615	39,608



Table 18: (continued) *The reported cumulative acres treated with pesticides that are biopesticides. Biopesticides include microorganisms and naturally occurring compounds, or compounds similar to those found in nature that are not toxic to the target pest (such as pheromones).*

AI	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Z-8-DODECENYL ACETATE	49,086	54,242	46,757	49,591	45,656	49,300	47,640	41,405	42,615	39,608
TOTAL	4,039,404	4,166,774	3,980,553	4,901,362	5,471,994	5,585,538	6,548,518	6,925,400	7,485,717	8,007,672