

**Table C8: Summary of Cases Reported in California<sup>1</sup> as Associated With<sup>2</sup> Pesticide Exposure, Summarized by Gender, Age Distribution, Type of Pesticide, and Type of Use  
2021**

**Agricultural Use Pesticide Exposure Incidents<sup>3</sup>**

Age Group	Pesticides other than Antimicrobial Pesticides <sup>4</sup>			Antimicrobial Pesticides <sup>4</sup>			Total
	Male	Female	Unknown	Male	Female	Unknown	
7–12	1	0	0	0	0	0	1
13–17	2	0	0	0	0	0	2
18–24	6	5	0	1	0	0	12
25–34	16	11	0	2	0	0	29
35–44	15	8	0	1	0	0	24
45–54	20	14	0	0	0	0	34
55–64	9	10	0	0	0	0	19
> 65	9	3	0	0	0	0	12
Adult, Unknown Age	56	17	2	0	0	0	75
Minor, Unknown Age	0	1	0	0	0	0	1
Unknown	0	0	1	0	0	0	1
<b>Total Ag Cases</b>	<b>134</b>	<b>69</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>210</b>

**Non-Agricultural Use Pesticide Exposure Incidents<sup>3</sup>**

Age Group	Pesticides other than Antimicrobial Pesticides <sup>4</sup>			Antimicrobial Pesticides <sup>4</sup>			Total
	Male	Female	Unknown	Male	Female	Unknown	
≤ 6	23	16	0	23	19	0	81
7–12	6	4	0	9	0	0	19
13–17	1	2	0	2	5	0	10
18–24	13	14	0	20	11	0	58
25–34	26	25	0	25	41	0	117
35–44	22	11	0	19	21	0	73

Age Group	Pesticides other than Antimicrobial Pesticides <sup>4</sup>			Antimicrobial Pesticides <sup>4</sup>			Total
	Male	Female	Unknown	Male	Female	Unknown	
45–54	26	15	0	13	24	0	78
55–64	30	20	0	13	17	0	80
> 65	20	17	0	12	6	0	55
Adult, Unknown Age	14	25	0	12	11	0	62
Minor, Unknown Age	0	1	0	4	3	0	8
Unknown	0	1	0	3	0	0	4
<b>Total Non-Ag Cases</b>	<b>181</b>	<b>151</b>	<b>0</b>	<b>155</b>	<b>158</b>	<b>0</b>	<b>645</b>
<b>TOTAL CASES<sup>5</sup></b>	<b>318</b>	<b>221</b>	<b>3</b>	<b>159</b>	<b>158</b>	<b>0</b>	<b>859</b>

1. **Source:** California Department of Pesticide Regulation, Pesticide Illness Surveillance Program.

2. **Associated With:** Includes cases classified as definitely, probably, or possibly related to pesticide exposure.

**Definite:** High degree of correlation between pattern of exposure and resulting symptomatology. Requires both medical evidence (e.g., measured cholinesterase inhibition, positive allergy tests, characteristic signs observed by medical professional) and physical evidence of exposure (e.g., environmental and/or biological samples, exposure history) to support the conclusions.

**Probable:** Relatively high degree of correlation exists between the pattern of exposure and the resulting symptomatology. Either medical or physical evidence is inconclusive or unavailable.

**Possible:** Health effects correspond generally to the reported exposure, but evidence is not available to support a Definite or Probable relationship.

3. **Intended Use:** Agricultural/Non-Agricultural - Indicates whether the pesticide(s) were intended to contribute to the production of agricultural commodities.

**Agricultural:** The pesticide(s) were intended to contribute to the production of agricultural commodities, including livestock. This includes: 1) agricultural research facilities, 2) handling of raw agricultural commodities in packing houses, 3) drift from agricultural applications into non-agricultural areas, and 4) transportation and storage of pesticides on farm lands. It excludes forestry operations, although they are classified as agricultural for regulatory purposes. It also excludes manufacture,

transportation, and storage of pesticides prior to arrival at the site of agricultural production.

Non-Agricultural: The pesticide(s) were not intended to contribute to the production of agricultural commodities. This includes: 1) residential pesticide uses, 2) structural pest control, 3) rights-of-way, 4) parks, 5) landscaped urban areas, and 6) manufacture, transportation and storage of pesticides except on farm lands.

**4. Antimicrobial:** Pesticides used to kill or inactivate microbiological organisms (e.g., bacteria, viruses).

**5.** Totals include four additional cases that could not be determined to be agricultural or non-agricultural use situations.

**Whom to Contact:**

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**About the Pesticide Illness Surveillance Program Data**

Pesticide-related illnesses have been tracked within the state of California for more than 50 years. The California Environmental Protection Agency, Department of Pesticide Regulation (DPR) maintains a surveillance program which records human health effects of pesticide exposure. The Pesticide Illness Surveillance Program (PISP) documents information on adverse effects from pesticide products, whether elicited by the active ingredients, inert ingredients, impurities, or breakdown products. This program maintains a database, which is utilized for evaluating the circumstances of pesticide exposures resulting in illness. This database is consulted regularly by staff who evaluate the effectiveness of the DPR pesticide safety programs and recommend changes when appropriate.