Table C13: Pesticide-Associated Illnesses and Injuries Reported in California Schools[1,2] by Exposure Category, Pesticide Type, and Type of Use 2022

Exposure[5]	Agricultural[3]				Non-Agricultural[3]				Total
	Antimicrobials[4]	Cholinesterase Inhibitors[4]	Fumigants[4]	Other Pesticides[4]	Antimicrobials[4]	Cholinesterase Inhibitors[4]	Fumigants[4]	Other Pesticides[4]	
Off-Site Movement	0	0	0	7	9	0	0	0	16
Residue	0	0	0	0	1	0	0	1	2
Direct Spray/Squirt	0	0	0	0	3	0	0	0	3
Spill/Other Direct	0	0	0	0	2	0	0	2	4
Other	0	0	0	0	1	0	0	1	2
TOTAL	**0**	**0**	**0**	**7**	**16**	**0**	**0**	**4**	**27**

1. Source: California Department of Pesticide Regulation, Pesticide Illness Surveillance Program. Three children were reported to have been exposed while at school in 2022.

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, 4) transportation and storage of pesticides on farm lands, 5) mosquito abatement in rice field, 6) fly suppression in livestock production, excluding non-agricultural areas (e.g., office), 7) applications to uncultivated agricultural land, and 8) suppression of vermin by growers. 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, 6) manufacture, transportation and storage of pesticides except on farm lands, and 7) forestry operations for conservancy.

4. Type of Pesticide: Type of pesticide based on functional class.

Antimicrobials:	Pesticides used to kill or inactivate microbiological organisms (e.g., bacteria, viruses).
Cholinesterase Inhibitors:	Pesticides known to inhibit the function of the cholinesterase enzyme.
Fumigants:	Pesticide in gas or vapor formulation that is released into the air or injected into the application site.
Other Pesticides:	Any pesticide that is not an antimicrobial, cholinesterase-inhibiting pesticide or fumigant.

5. Type of Exposure: Characterization of how an individual came into contact with a pesticide. Exposure categories not listed on the table indicate that no illnesses occurred under that category.

Off-Site Movement:	Spray, mist, vapors, or odor carried from the target site by air. Off-site movement must be related to an application or mix/load activity.

Residue:	The part of a pesticide that remains in the environment for a period of time following an application or drift. This includes odor after the completion of an application.
Direct Spray/ Squirt:	Material propelled by the application or mix/load equipment. Contact with the material can be by direct projection or ricochet. This includes exposure of mechanics working on application or mix/load equipment when the material is forced out by pressure.
Spill/ Other Direct:	Any of the following: 1) contact made during an application or mixing/loading operation where the material is not propelled by the equipment; 2) expected direct contact during use (e.g., washing dishes in a disinfectant solution); 3) leaks, spills, etc. not related to an application.
Other:	Other known route of exposure not included in other exposure categories. This includes, but is not limited to: 1) vapors, odor or other indirect contact from pesticide(s) not related to an application or mix/load activity; 2) exposure to smoke or pyrolytic products from a fire where pesticides are burning; 3) pesticide transfer (e.g., from contaminated hand/glove to eye).

Whom to Contact:

California Department of Pesticide Regulation
Worker Health and Safety Branch
Physical address: 1001 I St., Sacramento, CA 95814-2828
Mailing address: P.O. Box 4015, Sacramento, CA 95812-4015
Phone: (916) 445-4222; Fax: (916) 322-8577
www.cdpr.ca.gov

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.