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Salinas, CA 93905

October 24, 2023

Monterey County Agricultural Commissioner Juan Hidalgo
1428 Abbott Street
Salinas, CA 93901

Via email: AgComm@co.monterey.ca.us

Dear Agricultural Commissioner Hidalgo,

October is recognized by the EPA and by the California legislature as Children's Environmental Health Month. Environmental health is a health, racial equity, and social justice issue. Every child deserves a safe and clean world to play, learn, and grow up in, but that reality doesn't exist in many of California's most marginalized communities.

--[California Alliance for Children's Environmental Health](#)

We are concerned that we have not received a response from you to our letters calling for you to restrict the use of a number of pesticides that scientific research tells us harms our children. We wrote to you about chlorthal dimethyl (Dacthal) on August 22; 1,3-dichloropropene (1,3-D, Telone) on September 1; and thirteen pesticides linked to specific childhood cancers on September 21.

We also call on you to restrict the use of organophosphate (OP) pesticides that the 25-year UC Berkeley CHAMACOS research project has linked to brain and lung harm, as well as behavior problems in Salinas Valley children. The use of OP pesticides is disproportionately high in Monterey County, as a quarter of all California use by pounds is concentrated here.

CHAMACOS has documented harm to children linked to organophosphate exposure

During the last quarter century CHAMACOS scientists have found compelling evidence that exposure to even low levels of OP pesticides, especially prenatal exposure, is putting children at risk for cognitive and behavioral deficits, neurodevelopment disorders, and lung damage. The following are just several of CHAMACOS findings with hyperlinks to the articles:

["a decrease of 2.2 points ... in Full-Scale IQ and 2.9 points ... in Verbal Comprehension for each standard deviation increase in toxicity-weighted use of organophosphate pesticides;"](#)

["residential proximity to OP and carbamate pesticide use during pregnancy and both household- and neighborhood-level poverty during childhood were independently associated with poorer cognitive functioning in children at 10 years of age;"](#)

“prenatal ... DAP [OP exposure indicating] concentrations were associated with poorer intellectual development in 7-year-old children;”

“in utero DAPs [indicators of OP exposure] and, to a lesser extent, postnatal DAPs were associated adversely with attention as assessed by maternal report, psychometrician observation, and direct assessment. These associations were somewhat stronger at 5 years than at 3.5 years and were stronger in boys;”

“OP exposure was associated with altered brain activation during tasks of executive function. For example, with a 10-fold increase in total OP pesticide use within 1 km of maternal residence during pregnancy, there was a bilateral decrease in brain activation in the prefrontal cortex during a cognitive flexibility task;”

“[greater than] 3 day old infants, increasing average prenatal urinary metabolite levels [indicating levels of OP exposure] were associated with both an increase in number of abnormal reflexes ... and the proportion of infants with more than three abnormal reflexes;”

“early-life organophosphate exposure as assessed by dialkylphosphate concentrations was adversely associated with 7-year-old children's lung function
early-life exposure to OP pesticides was associated with respiratory symptoms consistent with possible asthma in childhood;”

“associations of prenatal ... urinary [OP exposure-indicating] concentrations with adolescent/young adult externalizing and internalizing behavior problems;”

Much of the CHAMACOS research addresses prenatal exposure within one kilometer – 0.62 mile – of OP applications. Current state regulations do not address exposure from applications at such distances and therefore do not account for normal pesticide drift. For example, the policy implemented in 2018 that restricts pesticide use around California public schools and daycares applies only to pesticides used within a ¼ mile of schools.

One-quarter of all organophosphate use in California is in Monterey County

The table below compares the use of all federally registered organophosphate pesticides in California to Monterey County, according to the State's latest data in the 2021 Pesticide Use Reports. One-quarter of all organophosphates by pounds in California were applied in Monterey County, including half of all bensulide use.

TABLE: Organophosphate Use in Monterey County versus California, 2021

<i>Organophosphate</i> (federally registered)	<i>California</i>				<i>Monterey County</i>	
	CA status	2021 pounds	Toxic Air Contaminant	CA Prop 65	2021 pounds	% of CA total
Acephate		107,486			29,289	27
Bensulide		339,242			170,975	50
Chlorethoxyfos	no active registered products					
Chlorpyrifos	canceled, no active registered products	5,307	Yes	Reproductive/developmental toxicant	0	0
Chlorpyrifos-methyl						
Coumaphos	one registered product (pest strip)					
Diazinon		36,346			0.1	0.0003
Dichlorvos (DDVP)		0	Yes	Cancer	0	0
Dicrotophos	no active registered products					
Dimethoate		92,228		Cancer	4,272	5
Ethoprophos (Ethoprop)	restricted	9,490			15	0.2
Malathion		238,507		Cancer	26,536	11
Naled		154,639			21,423	14
Phorate	restricted	10,604			0	0
Phosmet		23,973			0	0
Terbufos	no active registered products					
Tribufos	restricted	6,804	Yes	Cancer	0	0
TOTAL		1,024,626			252,510	25

As with the other highly hazardous pesticides we've called upon you to restrict, we believe that none of these organophosphate pesticides should be used in Monterey County, California, or anywhere else. We recognize that County Agricultural Commissioners do not have the power to ban a pesticide county-wide, but we know you can restrict use that "will present an undue hazard when used under local conditions" (The Food & Agricultural Code 14006.6(a)). The disproportionately high use levels and 25 years of CHAMACOS research documenting harm to the children of Monterey County certainly demonstrate an undue hazard.


We call on you to take three immediate steps to protect children from organophosphate pesticides:

1 Since only three of these organophosphate pesticides (ethoprop, phorate, tribufos) are currently California restricted materials requiring a notice of intent (NOI) for approval of applications by the County Agricultural Commissioner, **we call on you to demand NOIs** for the rest, so that you can take measures to protect our community. The Food & Agricultural Code 14006.6(a) does not require advanced notice of unrestricted material “unless the commissioner determines that its use will present an undue hazard when used under local conditions.” As an example, before chlorpyrifos was restricted in 2015, the Ventura County Agricultural Commissioner required 48-hour NOIs and 300-foot buffers around schools for chlorpyrifos use.¹ You can take similar actions regarding **acephate, bensulide, diazinon, dimethoate, malathion, and naled** (and phosmet, given there has been recent use before 2021). And please note that two of these organophosphates, dimethoate and phosmet, are also two of the thirteen childhood cancer-causing pesticides about which we wrote to you last month.

2 **Web-post the NOIs for all organophosphate pesticides in real-time**, so that our communities can prepare and take safety precautions to reduce the risks to our children.

3 **Apply emergency safety buffers of at least one mile around all residences, schools, hospitals, and other sensitive sites in which these organophosphate pesticides cannot be applied.** This stopgap measure should at least be in place until the process to end their use entirely is complete.

Sincerely,



Yanely Martinez

Organizer, Safe Ag Safe Schools

Cc: Monterey County Board of Supervisors

Julie Henderson, DPR

Yana Garcia, Cal EPA

¹ *Agricultural Pesticide Use Near Public Schools in California*, CDPH, 2014, p. 55. <http://www.phi.org/wp-content/uploads/migration/uploads/application/files/m0lvrkqvtqh6897fl65fyegso0p8qqqudkrto9v13d6uiocq0r.pdf>