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EWG Urges California to Protect Children from Glyphosate

Comments to the California Office of Environmental Health Hazard Assessment

The Environmental Working Group, a nonprofit research and policy organization with offices in San Francisco, Calif.; Ames, Iowa; and Washington, D.C., is pleased to provide comments in support of the proposal from the California Office of Environmental Health Hazard Assessment to establish a cancer-based No Significant Risk Level for the herbicide glyphosate.

OEHHA's proposed limit for glyphosate, developed under Proposition 65, sets the essential groundwork for protecting state residents from this toxic chemical. However, the state needs to go much further in order to protect the health of children, who are more vulnerable than adults to toxic chemicals, as demonstrated by OEHHA's own report on early life susceptibility to carcinogens (OEHHA 2009).

Glyphosate causes tumors in laboratory animals and has been linked to non-Hodgkin's lymphoma in farmers. As more research is conducted, the glyphosate-cancer link continues to grow stronger (Portier 2017). Biomonitoring studies have found glyphosate in the bodies of Americans (Curwin 2007), including children and pregnant women, showing that exposure to this cancer-causing chemical starts in the womb.

Based on the evidence of glyphosate exposure's effects on children, EWG urges California to set a much lower limit for glyphosate, no more than 10 micrograms per day, which is more than 100 times lower than the state's proposed level of 1,100 micrograms per day.

EWG also supports the arguments concurrently and jointly submitted on behalf of our organization, the Center for Biological Diversity and the Center for Environmental Health, in addition to our recommendations below.

Three reasons for California to lower the glyphosate limit:

1. The No Significant Risk Level should include a tenfold safety factor to account for glyphosate exposures to children and the developing fetus.
OEHHA's 2009 report In Utero and Early Life Susceptibility to Carcinogens points

out that existing risk assessment approaches do not "adequately address the possibility that risk from early-in-life exposures may differ from that associated with exposures occurring in adulthood." The OEHHA report also noted that an adjustment factor of 10 is appropriate for calculating lifetime cancer risk in humans arising from carcinogen exposures that occur in utero.

A safety factor of 10, supported by OEHHA's own research, would account for potential increased susceptibility to glyphosate exposures occurring before birth and in the early years of life.

2. A tenfold children's health safety factor is supported by the 1993 National Research Council Report, "Pesticides in the Diets of Infants and Children," which highlighted that children are exposed to more pesticides than adults and are more susceptible to the toxic effects of pesticides, particularly those that cause cancer.

The 1996 Food Quality Protection Act specifically required for pesticide risk assessors to consider children's susceptibility to pesticides by using an additional tenfold safety factor.

In 2009, the National Research Council again emphasized the importance of applying an adjustment factor to account for varying susceptibility to cancer among humans. This authoritative report says that some people may be 10 to 50 times more susceptible to cancer than others, and advises public health agencies to include a factor of up to 25 to account for this variation.

A tenfold safety factor for children's health is thus fully supported by both the national pesticide law and by the recommendations of the country's top experts.

3. OEHHA should use the one-in-a-million standard for setting the No Significant Risk Level for all glyphosate exposures. For carcinogens in drinking water, California applies a one-in-a-million standard: no more than one expected case of cancer in every one million people who drink the contaminated water daily for a lifetime. This standard is appropriate to provide necessary safeguards against the risk of glyphosate-induced cancer.

Overall, after applying the tenfold children's health factor, a one-in-a-million cancer risk standard and rounding, EWG believes that the No Significant Risk Level for glyphosate should be no more than 0.01 milligram (10 micrograms) per day. This maximum intake limit should apply to all exposures.

Glyphosate exposure from food, water and air

As a result of widespread use, glyphosate has now been found to contaminate air, water and soil across vast expanses of the U.S., and also shows up in the food Americans eat every day.

A 2015 EWG analysis mapped year-to-year rises in glyphosate use on American farmland from 1992 to 2012, showing a sixteenfold increase nationally and heavy use in California's Central Valley from the earliest date shown. Glyphosate uses include spraying genetically engineered crops and applying at the end of growing season on some food crops that are not genetically engineered to resist glyphosate, including wheat, oats, barley and dry beans. Glyphosate is sold in stores for residential application around homes and yards, and is also widely sprayed along roadways, right-of-ways and irrigation canals, as well as on parks, commercial properties and plant nurseries.

We examined the U.S. Department of Agriculture National Agricultural Statistics Service 2015 data for California crops, taking into account different types of crops (such as fruits, grains, vegetables and nuts); total acres used for specific crops; the percent of acres treated with glyphosate; and the rate of glyphosate application. This analysis showed that at least 3.5 million pounds of glyphosate were sprayed on California agricultural land in 2015.

Accounting for total glyphosate use (agricultural and non-agricultural) would likely increase this amount by 50 percent, for a total of more than 5 million pounds sprayed annually in the state. These ongoing exposures to glyphosate for California's children and adults, especially those living near and working in agricultural communities, make OEHHA's action to set a risk level for glyphosate particularly urgent.

Conclusion

EWG applauds the efforts of OEHHA to protect the state residents from glyphosate, and urges the California officials to apply an even more stringent limit to glyphosate that will protect the health of Californian children from this herbicide.

Submitted on behalf of the Environmental Working Group,

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