



GMO herbicides raise reproductive risks in Midwest

New research shows mothers with high glyphosate levels more likely to have shorter pregnancies, deliver babies with lower birth-weight

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New research highlights a growing concern over sharply rising use of glyphosate - one of the world's most widely used herbicides and the active ingredient in [Monsanto Company's](#) weedkiller Roundup - and risks to pregnant women and children living in the Midwest.

The research shows that 91 percent of pregnant women tested had glyphosate residues in their urine, and the babies born to women with the higher levels gave birth prematurely to underweight infants, two birth defects correlated with a number of negative health outcomes.

Results of the study are being presented this week at the biennial [2017 Children's Environmental Health Translational Research Conference](#) in Arlington, Va., sponsored by the [Children's Environmental Health Network \(CEHN\)](#).

"In our study, which is ongoing, mothers with relatively higher levels of glyphosate were more likely to have shorter pregnancies and deliver babies with lower birth-weight, which have been linked to lower cognitive ability later in life and higher risk of metabolic syndrome," said the study's lead scientist, Paul Winchester, M.D., who is medical director at Franciscan St. Francis Health Neonatal Intensive Care Unit and professor of Clinical Pediatrics at the Indiana University School of Medicine.

Winchester and his colleagues will present their evidence showing that many Americans are now exposed on a near-daily basis to herbicides widely used on GMO corn and soybean fields during a panel Thursday titled, "Will Rising Herbicide Use in the Midwest Raise Reproductive Risks?"

In many Midwestern counties, genetically engineered corn and soybean fields account for over 50 percent of the land area, and millions of homes are surrounded by thousands of acres of heavily sprayed farmland.

Research shows that the ongoing spread of weeds resistant to glyphosate in the Midwest is triggering intensification of herbicide use. Ten years ago, most soybean fields were sprayed with one or two herbicides. Four or more herbicides will be applied by most soybean growers in 2017, and some of these herbicides will be sprayed more than once.

"Until this year, most herbicides in the Midwest were sprayed during a six-week window, but now the heavy herbicide spray season will last at least four months, placing more women and children at heightened risk," said Dr. Phil Landrigan, dean for Global Health at Mt. Sinai Medical School, and a contributor to the research.

Weeds resistant to glyphosate now infest around 130 million acres nationwide. At least two out of every three acres planted to corn and soybeans in the Midwest this year will be infested with one or more glyphosate-resistant weeds, forcing farmers to spray additional herbicides, more often, and at higher rates.

Genetically engineered varieties of corn and soybeans that are resistant to multiple herbicides have recently been approved by the EPA, and new herbicide-resistant traits are being rapidly incorporated in the nation's seed supply. The key, new traits in second-generation, herbicide-resistant crops allow corn and soybean plants to survive otherwise lethal applications of 2,4-D and dicamba herbicides.

Weed species resistant to glyphosate herbicide are rapidly spreading in the Midwest. The seed industry has responded by developing new GE corn and soybean varieties resistant to up to eight herbicides, including 2,4-D and dicamba.

Around 40 million acres of corn and soybeans will be planted in 2017 to new GE corn and soybean varieties, acres that will be sprayed with combinations of glyphosate (Roundup), glufosinate (Liberty), 2,4-D (EnlistDuo), dicamba (XtendiMax and Engenia), and several other herbicides.