

Are GMOs and herbicides safe? New England Journal of Medicine commentary casts doubt

The GLP aggregated and excerpted this commentary to reflect the diversity of news, opinion and analysis.

[Editor's Note: For a profile of one of the authors of this NEJM commentary, Charles Benbrook, visit GLP post [here](#).]

Two recent developments are dramatically changing the GMO landscape. First, there have been sharp increases in the amounts and numbers of chemical herbicides applied to GM crops, and still further increases — the largest in a generation — are scheduled to occur in the next few years. Second, the International Agency for Research on Cancer (IARC) has classified glyphosate, the herbicide most widely used on GM crops, as a “probable human carcinogen”¹ and classified a second herbicide, 2,4-dichlorophenoxyacetic acid (2,4-D), as a “possible human carcinogen.”

The application of genetic engineering to agriculture builds on the ancient practice of selective breeding. But unlike traditional selective breeding, genetic engineering vastly expands the range of traits that can be moved into plants and enables breeders to import DNA from virtually anywhere in the biosphere. Depending on the traits selected, genetically engineered crops can increase yields, thrive when irrigated with salty water, or produce fruits and vegetables resistant to mold and rot.

The National Academy of Sciences ... noted that genetic transformation has the potential to produce unanticipated allergens or toxins and might alter the nutritional quality of food. Both reports recommended development of new risk-assessment tools and postmarketing surveillance. Those recommendations have largely gone unheeded.

The first of the two developments that raise fresh concerns about the safety of GM crops is a 2014 decision by the Environmental Protection Agency (EPA) to approve Enlist Duo, a new combination herbicide comprising glyphosate plus 2,4-D. Enlist Duo was formulated to combat herbicide resistance. It will be marketed in tandem with newly approved seeds genetically engineered to resist glyphosate, 2,4-D, and multiple other herbicides. The EPA anticipates that a 3-to-7-fold increase in 2,4-D use will result. In our view, the science and the risk assessment supporting the Enlist Duo decision are flawed.

First, we believe the EPA should delay implementation of its decision to permit use of Enlist Duo. ... Second, the National Toxicology Program should urgently assess the toxicology of pure glyphosate, formulated glyphosate, and mixtures of glyphosate and other herbicides. ... Finally, we believe the time has come to revisit the United States' reluctance to label GM foods.

Read full, original post: [GMOs, Herbicides, and Public Health](#)