

Myth-Fact: Glyphosate and Glyphosate-Based Products

Bayer takes the safety of our agricultural products, medicines and devices, and the well-being of the people who use them, very seriously.

In particular, we want to be sure that the conversation around our products is accurate and reflects the strong body of science that supports them. In this piece, we address common misconceptions regarding the safety of glyphosate—the active ingredient in Roundup.

Myth: Glyphosate-based products are unsafe.

Fact: The extensive body of science (hundreds of studies over several decades), 50 years of real-world experience, and the conclusions of regulators and international agencies around the world (including the U.S. EPA, European Food Safety Authorities (EFSA), European Chemicals Agency (ECHA), and Australian (APVMA), Canadian (PMRA), Korean (MFDS), New Zealand (NZ EPA) and Japanese (JMAFF), Brazilian (ANVISA) regulatory authorities, as well as the Joint FAO/WHO Meeting on Pesticide Residues (JMPR), support the safety of glyphosate-based products when used as directed.

Myth: Glyphosate-based formulations haven't been extensively evaluated for real-world use.

Fact: The largest and most recent epidemiologic study – the National Cancer Institute-supported 2018 Agricultural Health Study that followed over 50,000 licensed pesticide applicators over more than 20 years – found no association between glyphosate-based herbicides and Non-Hodgkin's lymphoma (NHL), the cancer at issue in the litigation. In its 2017 Evaluation of Carcinogenic Potential, the EPA examined more than 100 studies the agency considered relevant, including 23 epidemiology studies that examine real-world use of glyphosate-based formulations, before reaching its favorable conclusions.

Myth: IARC's glyphosate opinion is cause for concern.

Fact: IARC is not a regulatory authority and did no original scientific studies. IARC's opinion is inconsistent with the conclusions of regulatory authorities and other experts around the world, who have assessed all the studies examined by IARC and many more. IARC is an outlier even within the World Health Organization (WHO) – IARC is one of four programs within the WHO that has evaluated the safety of glyphosate and is the only one to find an association between glyphosate and carcinogenicity. IARC states that it “identifies cancer hazards even when risks are very low at current exposure levels,” which means that IARC's classifications do not reflect real-world exposure. IARC puts other everyday substances like red meat and hot beverages in the same category as glyphosate.

Myth: Most scientific research on glyphosate was conducted by researchers with connection to Monsanto.

Fact: There are about 1700 studies in the EPA database related to glyphosate and glyphosate-based formulations that relate to health and safety. Most of these were sponsored by parties other than Monsanto. Additionally, EPA's 2017 cancer risk assessment examined more than 100 studies the agency considered relevant and concluded that glyphosate is ‘not likely to be carcinogenic to humans,’ its most favorable rating. These included epidemiology, long-term animal carcinogenicity and genetic toxicity regulatory-required studies and peer-reviewed publications, approximately 90% of which were conducted by parties other than Monsanto.

Myth-Fact: Glyphosate and Glyphosate-Based Products (cont.)

Myth: The number of cases filed in the U.S. against Monsanto/Bayer is evidence that Roundup is unsafe.

Fact: The number of cases in litigation like this can rise and fall over time and is not indicative of the merits of the litigation. Bayer remains confident in the reliability of all of our scientific experts and the science behind the safety of our glyphosate-based herbicides.

Myth: Many countries are raising issues with glyphosate-based herbicides.

Fact: Glyphosate is approved for use in more than 100 countries, and the leading health authorities around the world continue to conclude that glyphosate-based herbicides are safe for use. Togo is the only country in the world with a full ban on glyphosate, and the ban is not based on a science-based risk assessment.

Myth: The use of crop protection products such as glyphosate is not conducive to sustainable agriculture.

Fact: Glyphosate-based herbicides are an integral part of modern, sustainable farming. Weeds and other pests are among the toughest challenges farmers face every season. Farmers around the world count on glyphosate to help control their weeds safely and effectively. Glyphosate-based herbicides have also contributed to the widespread adoption of “no-till” and “conservation tillage” practices, which reduce erosion and carbon emissions. A recent study by Aimpoint Research found that due to less tillage, the use of glyphosate has resulted in 1.2 million fewer tons of CO₂ equivalent emissions from farm machinery, and an additional 32.5 million tons per year of CO₂ captured by farmland soil. The increased carbon capture and reduction in carbon emissions allowed by glyphosate is equivalent to offsetting the yearly emissions from 6.8 million cars.

Myth: Trace amounts of glyphosate are cause for concern.

Fact: Regulatory authorities have strict rules when it comes to pesticide residues and human exposure. The U.S. Environmental Protection Agency sets daily exposure limits for dietary, drinking water, and home uses at levels 100 times lower than those shown to have no negative effect in safety studies. There is no reliable scientific evidence that glyphosate use results in levels of residue that pose health problems for consumers.

Myth: Farmers have many options for sourcing glyphosate-based products.

Fact: The U.S. is one of only two countries that are major producers of glyphosate. The other is China. Without Bayer-produced glyphosate, which accounts for ~40% of the global glyphosate market, American farmers would be forced to rely on foreign-produced glyphosate.