

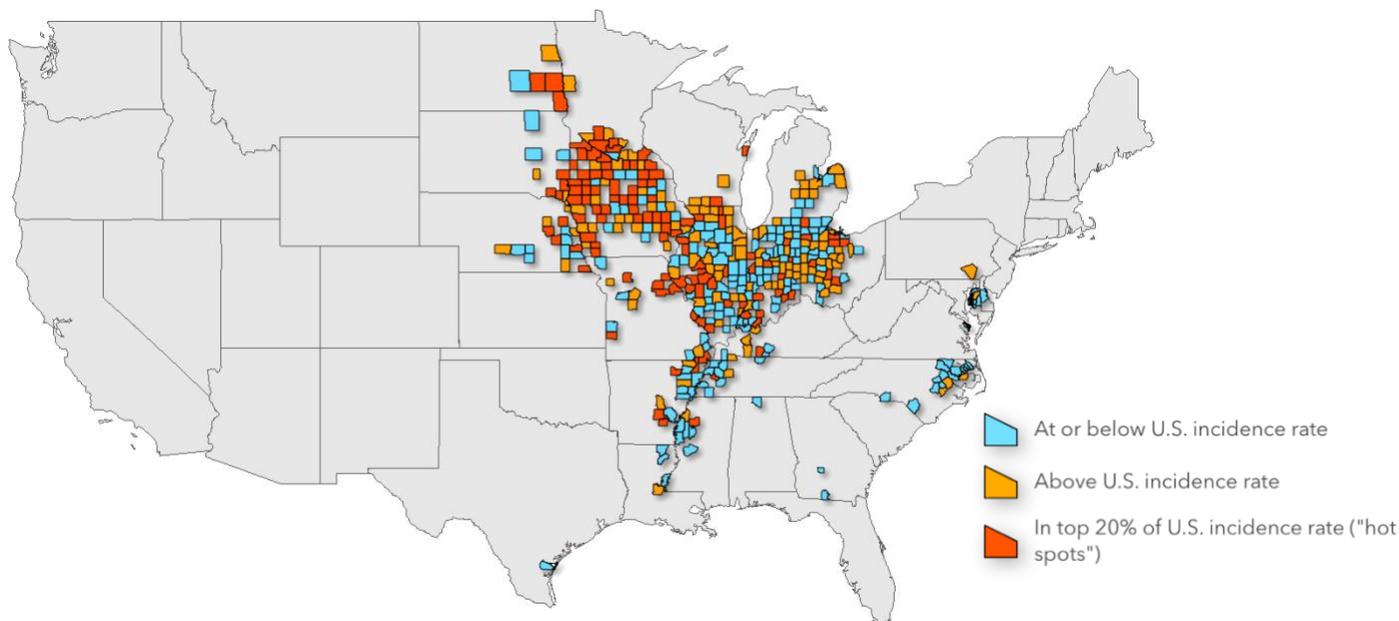
Glyphosate Use and Cancer Clusters

Many genetic and environmental factors contribute to cancer development, including chemical exposure. A recent academic study linked county-level pesticide use to increased cancer risks, on par with smoking.¹ And several Midwestern states, which grow the majority of U.S. corn and soybeans, have elevated cancer rates.²

Food & Water Watch (FWW) mapped the counties that spray the most glyphosate herbicides — those in the top 20 percent for application on commodity crops. We overlapped these data with incidence rates for non-Hodgkin lymphoma (NHL), a cancer linked to glyphosate exposure (see Fig. 1). When considering counties with reported NHL incidence rates, we found:

- Sixty percent of counties that spray the most glyphosate have NHL incidence rates above the national average. When we considered late-stage diagnoses, this rises to 71 percent.
- Thirty percent of high-spray counties are NHL “hot spots” — in the top 20 percent for NHL incidence rates (both total diagnoses and late-stage ones).
- The greatest overlap between glyphosate application and NHL is in the Midwest. In Iowa, 82 percent of high-spray counties have elevated NHL incidence rates, and half are NHL “hot spots.” This rises to 95 and 61 percent, respectively, when considering late-stage diagnoses.

Fig. 1: Counties that spray the most glyphosate, by non-Hodgkin lymphoma cancer rates



Counties in the top 20 percent for total glyphosate sprayed per square mile of cropland in 2022, with available county-level non-Hodgkin lymphoma (NHL) incidence rates (all stages of diagnoses, 2018-2022 averages). Note: Alaska and Hawaii had no county-level NHL incidence data available.

Meanwhile, powerful pesticide corporations like Bayer spend tens of millions of dollars lobbying state and federal regulators as they seek immunity from lawsuits brought by individuals who developed cancer after using their products. These “Cancer Gag Acts” would strip cancer patients of their rights to seek compensation for the harms they’ve suffered, all while protecting pesticide industry profit.³ Our map underscores the need to fight back against Cancer Gag Acts and scale back the use of chemical pesticides.

Background

Glyphosate is the active ingredient in Bayer’s⁴ Roundup herbicide. It is widely used on corn, cotton, and soybean crops genetically modified by Bayer to tolerate spraying. Pairing glyphosate with glyphosate-resistant seeds helped glyphosate become the most widely sprayed pesticide in the U.S.⁵

But in 2015, the World Health Organization’s International Agency for Research on Cancer (IARC) classified glyphosate as probably carcinogenic to humans. The IARC specifically linked glyphosate to non-Hodgkin lymphoma (NHL).⁶ In the decade since, tens of thousands of individuals who used glyphosate herbicides and developed NHL have sought damages from Bayer. To date, Bayer has paid out around \$11 billion in damages and has proposed settling existing and future claims for another \$11 billion.⁷

But Bayer has gone on the offensive, lobbying state and federal regulators for bills and provisions that would provide the company with immunity from these cancer lawsuits. Such “Cancer Gag Acts” would prevent individuals from bringing forth lawsuits claiming their cancers developed from exposure to glyphosate and other pesticides, as long as the pesticides are labeled according to U.S. Environmental Protection Agency (EPA) standards. (EPA labels focus on acute risks identified by pesticide corporations — not long-term exposure impacts like cancer.)⁸ Bayer has even appealed a \$1.25 million verdict to the U.S. Supreme Court. The Court will hear argument in the case in April 2026, and a ruling in favor of Bayer could significantly limit future litigation.⁹

Conclusion

FWW and our allies continue fight these Cancer Gag Acts at the state and national level. Meanwhile, the “No Immunity for Glyphosate Act,” introduced in the U.S. House of Representatives in February 2026, would prevent pesticide companies from receiving immunity from lawsuits relating to glyphosate exposure.¹⁰ And the “Pesticide Injury Accountability Act,” introduced in the U.S. Senate in July 2025, would amend federal pesticide regulations to provide a direct pathway to bring lawsuits against pesticide manufacturers to federal court.¹¹ These bills would ensure that farmers, farmworkers, and communities exposed to toxic pesticides have a clear legal pathway to seek compensation for harms caused by pesticide use.

Methodology

Crop and pesticide data

Food & Water Watch (FWW) estimated glyphosate applications on commodity crops included in recent reports from the U.S. Department of Agriculture's (USDA) Agricultural Chemical Use Program.¹² We compiled county-level data on crop acreage and production from the 2022 Census of Agriculture.¹³ The Census withholds acreage and production totals for counties with few reporting farms. In these instances, we subtracted the acreage from counties that reported from the state total and divided it by the total number of operations in counties that did not disclose, to arrive at an estimate of acres per operation in counties with undisclosed data. We then multiplied this figure by the total number of operations in each county with undisclosed data. We followed the same approach to estimate production per acre in counties with undisclosed data.

The Agricultural Chemical Use Program reports pesticide data in pounds of active ingredient. For each commodity, we applied the total percent of cropland treated with glyphosate to the total crop acreage reported by the Census and multiplied that figure by the average glyphosate application per acre. We then summed the total glyphosate used on each crop considered and divided by the area of county land to determine the amount of glyphosate sprayed per square mile.

We mapped these data in ArcGIS Pro and displayed them in quintiles, to determine which counties are in the top 20 percent for total glyphosate use per square mile.

Non-Hodgkin lymphoma incidence rates

Cancer incidence rates come from the National Cancer Institute's (NCI) State Cancer Profiles.¹⁴ We accessed the latest five-year averages (2018-2022) for non-Hodgkin lymphoma (NHL) at the county level for all races, sexes, ages, and rural/urban residence. We considered all stage and late-stage diagnoses separately and excluded counties with no available data for NHL incidence rates. Counties without data made up 31 percent of counties in the NHL all stages dataset, and 42 percent in the NHL late-stage dataset.

Data mapping

Our map displays only those counties that are in the top quintile (top 20 percent) for total glyphosate applied per square mile, and that also have reported county-level data for NHL incidence (all stages). Counties with NHL incidence rates at or below the national level are shaded blue. Counties with NHL rates between the national level and the top quintile (as categorized by NCI) are shaded orange. Counties in the top quintile for NHL rates — which we classify as NHL “hot spots” — are shaded red (see Fig. 1).

Endnotes

- 1 Gerken, Jacob et al. "Comprehensive assessment of pesticide use patterns and increased cancer risk." *Frontiers in Cancer Control and Society*. Vol. 2. July 2024 at 1, 2, and 5.
- 2 U.S. Centers for Disease Control and Prevention (CDC). National Cancer Institute (NCI). State Cancer Profiles. Accessed March 2026; U.S. Department of Agriculture (USDA). National Agricultural Statistics Service (NASS). "Crop Production: 2025 Summary." ISSN: 1057-7823. January 2026 at 10 and 51.
- 3 Food & Water Watch (FWW). "The Federal Cancer Gag Act: Pesticides Over People." August 2025 at 2 and 5.
- 4 Roundup was developed by Monsanto, which Bayer acquired in 2018, along with Roundup and its other products.
- 5 Benbrook, Charles M. "Trends in glyphosate herbicide use in the United States and globally." *Environmental Sciences Europe*. Vol. 28, Iss. 1. December 2016 at 1, 2, and 5; FWW analysis of USDA NASS. Quick Stats. Available at <https://quickstats.nass.usda.gov>. Accessed January 2025.
- 6 World Health Organization. International Agency for Research on Cancer. [Press release]. "IARC Monographs Volume 112: Evaluation of five organophosphate insecticides and herbicides." March 20, 2015.
- 7 Miller Jr., Ronald V. Lawsuit Information Center. "Monsanto Roundup Lawsuit Update." Updated March 5, 2026; Bayer. [Press release]. "Monsanto announces Roundup™ class settlement agreement to resolve current and future claims." February 17, 2026.
- 8 FWW (2025) at 2 to 3.
- 9 Miller Jr. (2026).
- 10 H.R. 7601. 119th Cong. (2026).
- 11 S. 2324. 119th Cong. (2025).
- 12 USDA NASS. Agricultural Chemical Use Program. Accessed November 2025.
- 13 USDA NASS. Quick Stats. Accessed June 2025.
- 14 CDC NCI. Accessed March 2026.