Glyphosate and Other Weedkillers Accelerate the Rise of Antibiotic-Resistant Bacteria

New research shows that the application of three of the most common herbicides used on GM herbicide-tolerant crops (glyphosate, glufosinate, and dicamba) increases antibiotic-resistant genes in the microbiomes of the soil.

Similar to plants, the soil bacteria are becoming resistant to weedkillers. Additionally, bugs that are most resistant to pesticides were found to have a genetic mutation that made them resistant to antibiotics.

Dr. Jack Heinemann, Professor of Molecular Biology and Genetics at the University of Canterbury has published two papers that suggest herbicides are "accelerants when it comes to the evolution of antibiotic resistance". His research is supported by recent findings from the University of York and Fujian Agriculture and Forestry University in China.

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> *When plants are sprayed, though, plenty of weed-killer gets into the soil – where there is an array of bacteria vital for healthy soil ecology. This is where a funny thing happens. Soil bacteria, like plants, are becoming resistant to weed-killer – and the bugs that are most resistant were found to carry a genetic mutation that also makes them resistant to antibiotics*
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> *Weedkillers are accelerating the rise of antibiotic-resistant bacteria*