

research highlights

GLYPHOSATE RESISTANCE

Of superweeds and survivors

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Glyphosate resistant weeds do not only harm agriculture and human health, but divide the scientific community in regard to who is to blame for the weeds, and what they should even be called. Carmen Bain at Iowa State University and her team interviewed over two dozen experts in the herbicide community in the United States and analysed primary source material from various organizations that support and oppose genetically modified organisms to gauge the level of debate on so-called ‘superweeds’.

Weeds resistant to glyphosate, the single most widely used herbicide globally, have become a major concern due to the increasingly needed use of more toxic herbicides to combat them. The researchers found that supporters of the use of genetically modified crops — such as varieties tolerant of glyphosate treatment — argue that there is nothing unnatural about this development; weeds will evolve in the same way as any other organism, and resistant organisms are nothing special but

merely ‘survivors.’ Farmers use too many herbicides and genetically modified crops should require less herbicide application if used correctly, according to supporters.



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Critics of genetically modified organisms counter that it is naive to believe that weeds would not become resistant to these chemicals, and that the emergence of superweeds is symptomatic of the approach of large-scale agribusiness, which leaves farmers with no option but to use the products available to maximize yields.

The researchers note that both sides of the argument agree that glyphosate resistant weeds are a significant problem, but that it is the framing and scale of the issue where differences occur. Proponents of genetically modified technologies emphasize that resistance development is a natural process and the problems that arise are the result of locally poor farming practices. Opponents scale-up the significance of superweeds as the result of top-down imposition on farmers of undesired agricultural approaches. For them, solutions lie in governmental legislation to restrain agribusiness. Such differences in focus will play a large role in how regulators, and the public, demand changes in current agricultural practices.

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