

**The New York Times**<sup>®</sup>  
Reprints

This copy is for your personal, noncommercial use only. You can order presentation-ready copies for distribution to your colleagues, clients or customers [here](#) or use the "Reprints" tool that appears next to any article. Visit [www.nytreprints.com](http://www.nytreprints.com) for samples and additional information. [Order a reprint of this article now.](#)

PRINTER-FRIENDLY FORMAT  
SPONSORED BY

May 16, 2010

## Resisting Roundup

A vast majority of soybeans and corn planted in this country, and in much of the world, are genetically engineered, and the technology is rapidly pushing its way into many more crops.

For farmers, the benefits are real — with these seeds they can spend less time plowing and cultivating and can use more benign agricultural chemicals to kill weeds. But according to a recent report from the National Research Council, there are also signs of trouble, chief among them the appearance in various parts of the country of herbicide-resistant weeds.

Such weeds could undermine the main purpose of genetically engineered crops: their ability to tolerate spraying with glyphosate, an environmentally benign herbicide marketed by Monsanto, one of the major producers of genetically engineered seeds, under the name Roundup. As ever, nature is finding its way around our defenses.

There were no glyphosate-resistant weeds when genetically engineered crops were introduced. A farmer could plant Monsanto's seeds, spray with Roundup, kill the weeds and enjoy the harvest. Now there are many such weeds, and they are tenacious. Some farmers using genetically engineered cotton are facing the prospect of more frequent plowing and the use of other herbicides.

The trouble with genetically engineered seeds is not the technology itself — bringing genetic traits from one species into another. It is the way this technology has forced farmers to rely almost exclusively on a single herbicide, and on an industrial scale. Herbicides are like antibiotics. Overuse them, and they become ineffective.

Losing glyphosate would be a serious setback. But now that Roundup-resistant weeds are coming into their own — fulfilling the early fears of many critics of genetically engineered seeds — it's time to acknowledge one of the central conclusions of the National Research Council report: farmers are simply planting too many acres of Roundup Ready crops.

The solution is more diverse crops and cultivation practices, and a wider array of seeds,

including non-genetically engineered ones. The unpalatable alternative is the re-introduction of far less benign herbicides.