

Some compare Monsanto's hard-line approach to Microsoft's zealous efforts to protect its software from pirates. At least with Microsoft the buyer of a program can use it over and over again. But farmers who buy Monsanto's seeds can't even do that. ¹⁰

The Control of Nature

For centuries—millennia—farmers have saved seeds from season to season: they planted in the spring, harvested in the fall, then reclaimed and cleaned the seeds over the winter for re-planting the next spring. Monsanto has turned this ancient practice on its head.

Monsanto developed G.M. seeds that would resist its own herbicide, Roundup, offering farmers a convenient way to spray fields with weed killer without affecting crops. Monsanto then patented the seeds. For nearly all of its history the United States Patent and Trademark Office had refused to grant patents on seeds, viewing them as life-forms with too many variables to be patented. "It's not like describing a widget," says Joseph Mendelson III, the legal director of the Center for Food Safety, which has tracked Monsanto's activities in rural America for years.

Indeed not. But in 1980 the U.S. Supreme Court, in a five-to-four decision, turned seeds into widgets, laying the groundwork for a handful of corporations to begin taking control of the world's food supply. In its decision, the court extended patent law to cover "a live human-made microorganism." In this case, the organism wasn't even a seed. Rather, it was a *Pseudomonas* bacterium developed by a General Electric scientist to clean up oil spills. But the precedent was set, and Monsanto took advantage of it. Since the 1980s, Monsanto has become the world leader in genetic modification of seeds and has won 674 biotechnology patents, more than any other company, according to U.S. Department of Agriculture data.

Farmers who buy Monsanto's patented Roundup Ready seeds are required to sign an agreement promising not to save the seed produced after each harvest for re-planting, or to sell the seed to other farmers. This means that farmers must buy new seed every year. Those increased sales, coupled with ballooning sales of its Roundup weed killer, have been a bonanza for Monsanto.

This radical departure from age-old practice has created turmoil in ¹⁵ farm country. Some farmers don't fully understand that they aren't sup-



A handful of Monsanto's Roundup Ready soybean seeds saved from a previous season could be grounds for an investigation by the biotech giant.

posed to save Monsanto's seeds for next year's planting. Others do, but ignore the stipulation rather than throw away a perfectly usable product. Still others say that they don't use Monsanto's genetically modified seeds, but seeds have been blown into their fields by wind or deposited by birds. It's certainly easy for G.M. seeds to get mixed in with traditional varieties when seeds are cleaned by commercial dealers for re-planting. The seeds look identical; only a laboratory analysis can show the difference. Even if a farmer doesn't buy G.M. seeds and doesn't want them on his land, it's a safe bet he'll get a visit from Monsanto's seed police if crops grown from G.M. seeds are discovered in his fields.

Most Americans know Monsanto because of what it sells to put on our lawns—the ubiquitous weed killer Roundup. What they may not know is that the company now profoundly influences—and one day may virtually control—what we put on our tables. For most of its history Monsanto was a chemical giant, producing some of the most toxic substances ever created, residues from which have left us with some of the most polluted sites on earth. Yet in a little more than a decade, the company has sought to shed its polluted past and morph into something much different and more far-