Once known as a chemical company, Monsanto is now a global agricultural biotechnology powerhouse that specializes in genetically engineered (GE) seeds and herbicides, most notably Roundup herbicide and GE Roundup Ready seed. GE seeds have been altered with inserted genetic material to exhibit traits that repel pests or withstand the application of herbicides. In 2009, in the United States alone, nearly all (93 percent) of soybeans and four-fifths (80 percent) of corn were grown with seeds containing Monsanto-patented genetics.

Monsanto has been at the forefront of the biotechnology industry and is one of the largest agricultural patent-holding companies, with more than 1,676 patents on seeds, plants and other agricultural applications. Because of Monsanto’s market dominance, its products are changing the face of farming—from the use of Monsanto’s pesticides and herbicides to the genetic makeup of the food we eat—and the company wields its influence all over the world.

Monsanto was not always a purveyor of life sciences, purportedly working to “produce better foods for consumers and better feed for animals”; it began as a purveyor of controversial chemicals. The company’s transformation from a chemical manufacturer to an enormously powerful agricultural and life sciences company, which Fortune magazine once labeled “possibly America’s most feared corporation,” has made the company infamous for tactics such as environmental damage, influencing government policy and aggressive treatment of competitors and farmers.

Multiple Monsanto-owned facilities have been deemed by the U.S. Environmental Protection Agency (EPA) as Superfund sites, which are places that are so contaminated that they rank among the worst in the United States and are put on the National Priority List for cleanup by a designated EPA fund. Monsanto produced approximately 99 percent of U.S.-produced polychlorinated biphenyls (PCBs), known carcinogens that have been banned since 1976 but that continue to cycle through the air, water and soil.

Monsanto has a close relationship with the U.S. government, which helps it to find loopholes or simply create regulations that benefit its bottom line. From 2000 to 2012, Monsanto spent over $62 million on lobbying the government. Members of Monsanto’s Board of Directors have also held a wide array of positions in the U.S. government since the 1980s.

Monsanto’s extensive patents on GE seeds and traits ensure the company legal rights to sue farmers for any assumed patent violations. Farmers who buy Monsanto seed are locked into a “technology use guide” agreement, which stipulates that farmers must not save any seed for commercial use (a thousands-year-old and cost-saving tradition). The agreement also allows Monsanto to investigate farmers’ fields at any time it deems necessary. According to a study conducted by The Center for Food Safety, Monsanto had filed 136 lawsuits against American farmers as of 2010—these lawsuits involved 400 farmers and 53 small busi-
nesses. Many farmers settle out of court rather than try to defend themselves to avoid excessive legal costs. In addition to lawsuits, Monsanto investigates roughly 500 farmers each year.

Monsanto’s international power has grown at an alarming rate, much to the dismay of both industrialized and developing countries that have inadvertently been exposed to the company’s relentless business strategy. India has been subjected to massive economic reforms since the 1990s, including trade liberalization and privatization, which resulted in the opening of its seed and agriculture market to global companies. Monsanto capitalized on this opportunity, introducing its insect-repellent Bt cotton seed in 2002. After the first eight years of Bt cotton cultivation, 87 percent of all Indian cotton produced was Bt; however, increased costs and water requirements put many farmers into economic hardship, the pressures of which have caused an alarming number to take their own lives. Bt cotton continues to be at the center of an ongoing debate about the causes of India’s agrarian crisis.

All of these tactics add up to make Monsanto a company that farmers and consumers around the world need to know about.

For more information, please read the full report available at www.foodandwaterwatch.org.

Endnotes

3  Monsanto Co. (November 14, 2011) at 22.
4  Ibid. at 7 and 9.
8  Ibid.
10  Monsanto Co. (November 14, 2011) at 7.
15  Ibid. at 2 and 15 to 27.
16  Center for Responsive Politics.
21  The Center for Food Safety. Monsanto Versus US Farmers. 2004 at 23 to 24; The Center for Food Safety (2010) at 2 to 8.
23  Ibid. at 5 to 6.
26  DeMartini (2011) at 7.
**a selected history of MONSANTO**

**1900**
- Monsanto Company is founded.\(^{25}\)

**1901**
- Acquires Swann Chemical Corporation; manufactures polychlorinated biphenyls (PCBs) through 1977.\(^{29}\)

**1910s**
- Manufactures saccharin, as a major supplier to Coca-Cola; manufactures caffeine, vanillin, sedatives and laxatives. Becomes world’s largest maker of aspirin.\(^{26}\)

**1920s**
- Manufactures salicylic acid, plastics, resins, industrial and chemical goods.\(^{27}\) Acquires chemical and rubber companies.\(^{28}\)

**1930s**
- Grandcamp ship explodes in Texas City, Tex., while loading near a Monsanto plant dock. The ship was carrying 2,500 tons of ammonium nitrate, and killed over 500 people. It remains the largest and most deadly U.S. chemical disaster, even six decades later.\(^{30}\)

**1940s**
- Manufactures plastics and synthetic fibers.

**1945**
- Begins manufacturing agricultural chemicals. These include 2,4-D, an herbicide that was mixed with 2,4,5-T to create Agent Orange, a defoliant contaminated with dioxin that was produced for the U.S. military during the Vietnam War.

**1947**
- Monsanto acquires GD Searle, which discovered and manufactured aspartame artificial sweetener. Creates subsidiary NutraSweet Company.\(^{37}\)

**1945-1971**
- Becomes principal company supplying Agent Orange to U.S. military for use in the Vietnam War. The Air Force sprayed nearly 4 million acres of South Vietnam with 18 million gallons of Agent Orange and similar defoliants, the effects of which are still being felt today.

**1949**
- Monsanto’s brands of propachlor and arachlor herbicides are approved for use, spurring the company’s shift into the agricultural market.\(^{31}\)

**1950**
- Monsanto acquires Times Beach. Dioxin, a byproduct of PCB production, is found at up to 127 parts per billion in the Missouri community of Times Beach, and over 2,000 people have to be permanently relocated by the EPA.\(^{35}\) Monsanto denies any connection, despite its PCB manufacturing plant in the area.

**1962**
- Scientists at Monsanto are the first to genetically modify a plant cell.\(^{36}\)

**1962-1971**
- Manufactures saccharin, as a major supplier to Coca-Cola; manufactures caffeine, vanillin, sedatives and laxatives. Becomes world’s largest maker of aspirin.

**1976**
- Roundup herbicide is approved for use on certain crops.\(^{34}\)

**1980**
- Monsanto acquires GD Searle, which discovered and manufactured aspartame artificial sweetener. Creates subsidiary NutraSweet Company.\(^{37}\)

(continued on back)
A Selected History of Monsanto (continued from front)

- **1993**  
  rBGH, commercially known as Posilac, is approved for U.S. market.  

- **1995**  
  Divests plastics division to Bayer.

- **1996**  
  Genetically engineered **Roundup Ready** soybeans, canola and cotton, as well as Bollgard insect-protected (Bt) corn and cotton, are introduced to the U.S. market.

- **1997**  
  First stacked-trait combination in cotton is introduced (multiple GE traits added to one seed).

- **1997**  
  Spins off chemical division as Solutia. Begins an acquisition spree buying multiple seed and agricultural companies.

- **1998**  
  Roundup Ready corn is commercialized.

- **1998**  
  Acquires DeKalb Genetics Corporation, a seed company.

- **2000**  
  Monsanto Chemical Company becomes a subsidiary of Pharmacia Corporation (which merged with Upjohn in 1995).  
  Monsanto sells NutraSweet Company to J.W. Childs.

- **2002**  
  Monsanto Company is spun off as its own new agricultural sciences company.  
  The Monsanto as we know it today is born.

- **2005**  
  Roundup Ready alfalfa and sugar beets are approved, then cancelled in 2007 for further analysis, then approved again in 2011 (alfalfa) and 2012 (beets).

- **2007**  
  Acquires Delta & Pine Land Company after a decade of antitrust investigation on Monsanto’s monopoly in the cotton industry. Divests Stoneville cotton brand as ordered by the District Court of Columbia in order to go through with D&PL acquisition.

- **2008**  
  Sells Posilac to Eli Lilly, amid consumer uproar over company support for attempts to outlaw rBGH-free labeling.

- **2011**  
  Drought-tolerant GE corn, as well as altered fatty-acid GE soybean, are approved. Roundup Ready alfalfa is reapproved.

- **2011**  
  Acquires Beeologics, a company dedicated to restoring the health of the bee population, amid scientific and media speculation that an overuse of pesticides is to blame for dwindling bee populations. Roundup Ready alfalfa is reapproved.

- **2012**  
  Roundup Ready sugar beets are reapproved.

- **2012**  
  Maharashtra state government in India bans sale and distribution of Bt cotton seeds after accusations that Mahyco Monsanto provided inferior quality seeds that aggravated India’s agrarian crisis and spurred farmer suicides.

- **2012**  
  “Monsanto Rider” is introduced in U.S. Farm Bill, which would allow GE crops to be approved quickly with very little regulation or testing.

- **2012**  
  Opposes Proposition 37 in California that would require labeling of foods with GE ingredients. Contributes $8.1 million as top donor in a $45 million campaign that defeats the initiative.