

Strategic Focus

Cross-Border Mega Mergers in the Agricultural Chemical and Technology Sectors

The agricultural chemical and technology sectors are in flux because of three mega-acquisitions, which have potential to affect, for example, approximately 50 percent of the commercial seed market. The first merger between Dow Chemical and DuPont Corporation was proposed in early 2015, but was not consummated until 2017. In 2016, Monsanto tried to buy the third largest agricultural technology company, Syngenta; however, the Monsanto acquisition of Syngenta was blocked based on anti-trust concerns. Subsequently, ChemChina offered to pay the price that Syngenta was asking and the deal ultimately was consummated because the regulators found that ChemChina did not have the agricultural technology market power that both Monsanto and Syngenta would have had together. ChemChina, a Chinese SOE, was allowed to consummate the merger and pay the premium necessary, due to government concern for food security in China with its large population base (19 percent of the world) versus its small percentage of arable land (7 percent of the world). Over the years, China has experienced significant famines, including one in the 1950s and 1960s in which an estimated 34 million people starved to death. The Chinese concern for food security drove Chinese leaders to pursue policies that led to storing of agricultural foodstuffs as well as to increasing its ability to be more globally competitive in agricultural chemistry, technology, and data-driven farming for efficiency purposes.

There are some complications to the deal, in that ChemChina will have to focus on developing genetically modified organism (GMO) seeds. At present, China does not allow GMO agricultural products to enter the country, thanks in part to the many food production and contamination scandals in China over the years. But this likely will have to change with this large-scale acquisition. The new Chinese strategy for food security includes controlling its global supply chain from beginning to end, and since the chain obviously begins with seeds, the focus now on efficiency requires GMO varieties. So, this will create a dilemma that may require compromise on many sides.

Interestingly, the acquisition of Syngenta would leave Europe with significantly less power among global food technology producers. As such Bayer, a large German chemical firm with significant food technology assets, put forth an offer to buy U.S.-based Monsanto. This transaction has largely been approved by most regulatory bodies around the world because it was not anti-competitive though it was a very large transaction. Although Bayer had a small agricultural seed business, it has a global agricultural chemicals division. On the other hand, Monsanto is the world's leader in agricultural seeds and genetics, but was quite

small in agricultural chemicals. Thus the combination will make Bayer strong in both types of technology. Additionally, Monsanto has a huge big-data advantage; Monsanto has become the leading provider of analytics for growers and is at the forefront of digital farming. This business provides analysis as to the appropriate combination of seed types, fertilizers, and chemicals for improving farm efficiency around the world.



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Mycogen Seeds is a subsidiary of Dow AgroSciences.

The Dow-DuPont merger was completed in 2017 after a complex process of obtaining regulatory approval in most of the large countries in the world. In part, the merger won approval by suggesting that after integration it would spin off into three separate firms: material science, specialty chemical products, and seeds and agricultural chemicals (more detail on this restructuring strategy will be addressed later in the chapter).

In summary, these three deals leave one large company in China, Europe, and the United States, ChemChina(Syngenta), Bayer(Monsanto), and DowDuPont (future spin-off), respectively. These large cross-border acquisitions will largely determine the future of the agricultural chemical and seed businesses, as well as technological efficiency through big-data analytics in farming.

Sources: B. Gomes-Casseres, 2018, What the big mergers in 2017 tell us about 2018, *Harvard Business Review*, www.hbr.org, January 2; F. Y. Chee, 2018, Bayer wins EU approval for \$62.5 billion Monsanto buy, *Reuters*, www.reuters.com, March 21; C. Jing, 2018, DowDuPont names three planned spin offs, *Chemical Week*, February 26, 10; Z. Turner & N. Drozdziak, 2018, Bayer to sell more assets to win approval for Monsanto deal, *Wall Street Journal*, www.wsj.com, February 28; S. Chatterjee & C. Alzhu, 2017, As Syngenta deal closes, ChemChina and Sinochem press \$120 billion deal, *Reuters*, www.reuters.com, May 23; G. Colvin, 2017, Inside China's \$43 billion bid for food security, *Fortune*, www.fortune.com, April 21; B. Tita & J. S. Lublin, 2016, Breen's Tyco experience will guide him in dismantling DowDuPont, *Wall Street Journal*, www.wsj.com, January 6.