

The New Cold War between the United States and China and China's Food Self-Sufficiency

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Received: June 16, 2023; **Accepted:** July 03, 2023; **Published:** July 05, 2023

China is the world's largest producer of food, but at the same time, it is also the largest food importer, as it needs to import over one-tenth of its food production to meet the demands of its enormous population. In contrast, the United States is the world's largest food exporter, supplying approximately 150 million tons of food globally each year and controlling over half of the global food market [1]. The United States is initiating a new cold war against China, and besides energy, thus, food self-sufficiency and security have clearly become strategic vulnerabilities in the long-term competition between China and the United States. After all, China needs to feed a population that is four times larger than that of the United States, with nearly 30% less arable land.

Therefore, China seeks to safeguard its food self-sufficiency and security by utilizing new agricultural technologies to ensure sufficient food production on limited land, particularly in the face of urbanization and the gradual loss of arable land due to salinization. This may also explain why Chinese leader Xi Jinping visited the Sanya Seed Laboratory in China instead of Shanghai during the hardships of the city's lockdown in year 2022 and emphasized the importance of "grasping Chinese seeds tightly to secure China's food supply." It is because Argentina serves as a cautionary tale. It is well known that Argentina introduced genetically modified soybeans in 1996. Due to the benefits of insect resistance, ease of cultivation, and high yields, coupled with Monsanto's absence of patent fees initially, farmers made significant profits [2]. Driven by comparative advantages, Argentina began clearing forests on a large scale to grow Monsanto's genetically modified soybeans, accompanied by the use of glyphosate herbicides specifically designed for this soybean variety. In a couple of years, genetically modified soybeans occupied over majority of Argentina's soybean cultivation area. As the sheep fattened, Monsanto began demanding exorbitant fees for seed patents from Argentina and even sued

international buyers of Argentine soybeans who refused to pay. This plunged many Argentine farmers into poverty. China will not allow a repetition of the lessons learned from the Argentine experience to occur in China. Currently, there are four major seed giants in the world that control global food trade, and three of them are American companies. It is highly unlikely for China to permit the exclusive control of its food seeds to remain in foreign hands, particularly in the hands of the United States.

China's remarkable feat of feeding almost 17% of the global population with only 7% of the world's arable land is diminishing in terms of soil quality. In China, there are approximately 1.8 billion acres of farmland that is increasingly degraded, and nearly the same size of land already suffering from salinization, China must utilize new varieties and technologies to increase crop yields per unit area and ensure food security.

Facing a shortage of arable land and increasingly infertile soil due to excessive cultivation, independent and controllable high-quality seed technology is crucial for China's food security. Therefore, China is dedicated to cultivating rice varieties that can adapt to saline-alkali soil. If widely promoted, it is estimated that every 100 million acres of saline-alkali land can support an additional 80 million people. So, if successful in transforming 200 million acres of saline-alkali land, China's food self-sufficiency rate would reach 100%. As a result, China will obtain a fundamental strategic resource to compete with the United States in the long run.

Reference

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Citation: Chu-Ping Lo. The New Cold War between the United States and China and China's Food Self-Sufficiency. *J Envi Sci Agri Res*. 2023. 1(1): 1-1.

DOI: doi.org/10.61440/JESAR.2023.v1.03

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