



Homeland
Security

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(U) Economic Security Mission Center

(U//FOUO) China Likely Unable To Replace US Soybean Exports

(U//FOUO) Scope. This *Article* informs senior DHS policy makers supporting United States Trade Representative (USTR) trade negotiations and state and local partners concerning China's ability to continue restricting imports of US soybeans through retaliatory tariffs and negatively impacting the critical infrastructure of the US Food and Agriculture sector. We assume that US Department of Agriculture (USDA) estimates on future supply and demand over the following 10 years are accurate. Further, we assume for the purposes of this *Article* that imports are equivalent to demand. We do not address any potential impact on demand due to fluctuations in the value of relevant currencies, of commodity prices, or by African Swine Flu. This is the first time ESMC has written on the impact of retaliatory tariffs on US economic security. The information cutoff date for this *Article* is 25 November 2019.

(U//FOUO) Prepared by the DHS Intelligence Enterprise (DHS IE) Economic Security Mission Center (ESMC). Coordinated with CBP, FBI, and NGA.

(U//FOUO) China announced retaliatory tariffs in April 2018 and July 2018 in response to US section 232 and 301 tariffs, the latter of which specifically restricted soybeans.¹ According to open source reporting, the Chinese government's trade negotiation tactics include limiting purchases of US soybeans and other agricultural products pending favorable outcomes during trade negotiations.^{2,3,4} However, we assess China's negotiating tactic that implies purchase of US soybeans as a choice is inaccurate and disingenuous. The impact of China's fundamental inability to replace US soy will be a limitation on China's ability to leverage purchases of US agricultural products in trade negotiations.

(U//FOUO) China's Demand For Soybeans Due Primarily to Meat Consumption

(U//FOUO) The majority of US soybeans exported to China are used to produce animal feed. Meat consumption, along with other soy-derived products, has steadily risen in China as incomes have risen. Increasing domestic consumer demand for meat, together with the particular cultural significance of pork, increases pressure for the consistent availability of soybeans. This Article assumes there are no readily available substitutes for soybeans as an animal feed ingredient.

- » (U//FOUO) According to Congressional Research Service interpretation of Census data, China has been the largest market for US soybeans since 2000.⁵ In 2017, Chinese imports of US soybeans were valued at \$12.3 billion and accounted for 63 percent of total Chinese imports of US agricultural products. Domestically, 31 states consistently produce soybeans and the top third constitute 81 percent of total US production. Worldwide, the majority of soybeans are produced and exported by the United States and Brazil. During the 2016-2017 marketing year—September 2016 to August 2017—the United States and Brazil combined accounted for 66 percent of total worldwide production and 83 percent of total worldwide exports of soybeans; with Brazil exporting 63 million metric tons (MMT) and the United States exporting 59 MMT. By comparison, the third largest exporter, Argentina, only exported 6.9 MMT. In the 2016-2017 marketing year, the United States exported 50 percent of its domestic production and Brazil exported 55 percent. As the share of total national exports that go to China, 61 percent of US exports and 78 percent of Brazil's exports went to China.⁶ Therefore, for China to stop imports of US soybeans it would need to find another supplier. However, worldwide demand is overwhelmingly met by exports from Brazil and the United States, with the majority of Brazilian exports already going to China. With the third largest exporting country commanding only a small fraction of the market, it is unable to replace US exports and few alternative providers exist.

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- » (U//FOUO) Since instituting retaliatory tariffs on purchases of US agricultural products in July 2018, open source media reporting indicates China has struggled to find alternative sources of soybeans.^{7,8} Although soybean exports to China for 2018 dropped significantly and were only 30 percent of the average, despite claims in open source media that purchases of agricultural products will be contingent on favorable trade negotiations, data for 2019 through October show soybean exports to China fall just below the historical average for this time period, rising 66 percent compared to full-year 2018.^{a,9,10,11,12} Similarly, analysis of the USDA estimated worldwide import and export projections of soybeans through 2028-2029, Chinese import demand for soybeans cannot be met by importing from countries other than the United States.^b Holding constant the current percentage of exports to China by other countries, China would have a shortfall of approximately 38.3 MMT in 2028/2029.
- » (U//FOUO) Brazil would have to undertake significant investment to increase land area planted to soy, thereby, increasing soybean production. As most of the available arable land in key producing states has been utilized and soybeans account for more than half of all cultivated area in Brazil, attempts to significantly increase production would involve converting degraded pastureland, requiring several years to be productive.¹³ USDA officials in Brazil further estimate growth in land planted to soy in Brazil is limited to 2 percent for the 2019-2020 growing season due to uncertainty surrounding soybean demand from China.¹⁴ Therefore, for the span of another growing season, Brazil's ability to replace US soybeans is largely limited to fluctuations in yield on land currently utilized, by the diverting of exports typically sent to other countries, or by reducing domestic consumption.

(U) Analysis of Alternatives

(U//FOUO) One alternative assessment could involve the following: in response to ongoing Chinese dependence on US soybean exports, China launches a nationalistic propaganda campaign emphasizing the need to strengthen self-sufficiency in certain areas and resist US attempts to "keep China down." Aiming to convince a domestic audience by invoking the cultural maxim to "eat bitterness" (chi ku) and the specter of a foreign threat, China seeks to lower pork consumption and therefore soybean imports. Ultimately, China is successful in overcoming cultural, materialistic, and nutritional pressures to consume pork. This substantially lowers the present and future dependence on US soybeans, potentially allowing continued demand to be met solely by other providers such as Brazil and Argentina. An additional alternative assessment could involve permanent changes in tariff structures in China that would favor the use of land to produce soybeans over currently favored grain crops could also lower demand of US soybeans.

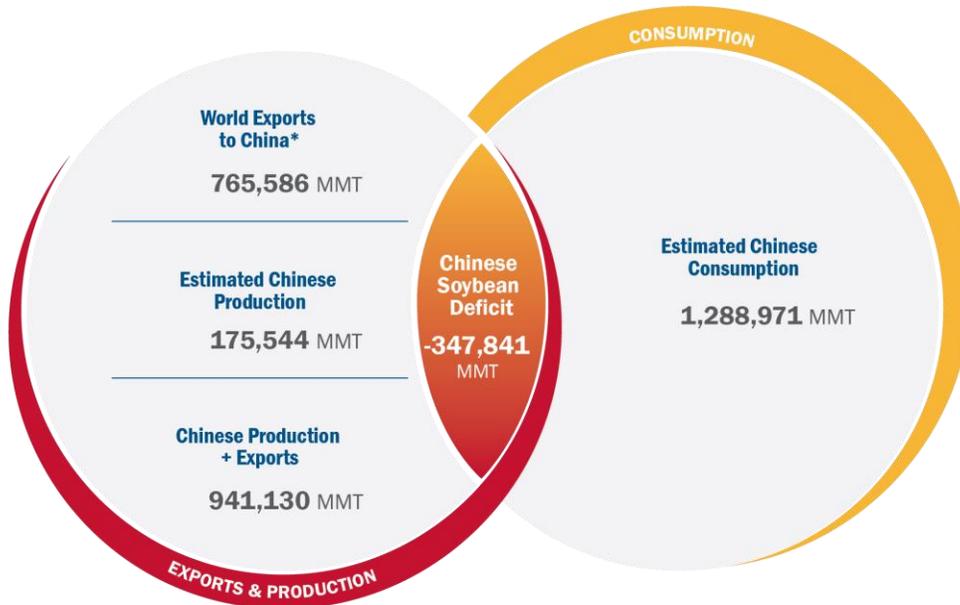
(U) Tracked by: HSEC-4

^a (U) Average exports of soybeans to China over the calendar years of 2009-2017/2018

^b (U//FOUO) These projections assume Chinese tariffs on US agricultural products continue indefinitely and production levels in the rest of the world respond accordingly.

(U) Estimated Supply of Soybeans Available to China 2019-2029

This visualization shows the estimated supply of soybeans available to China from domestic production, and imports, from all countries excluding the United States. This supply is then compared to estimated Chinese demand for soybeans, showing the estimated deficit.



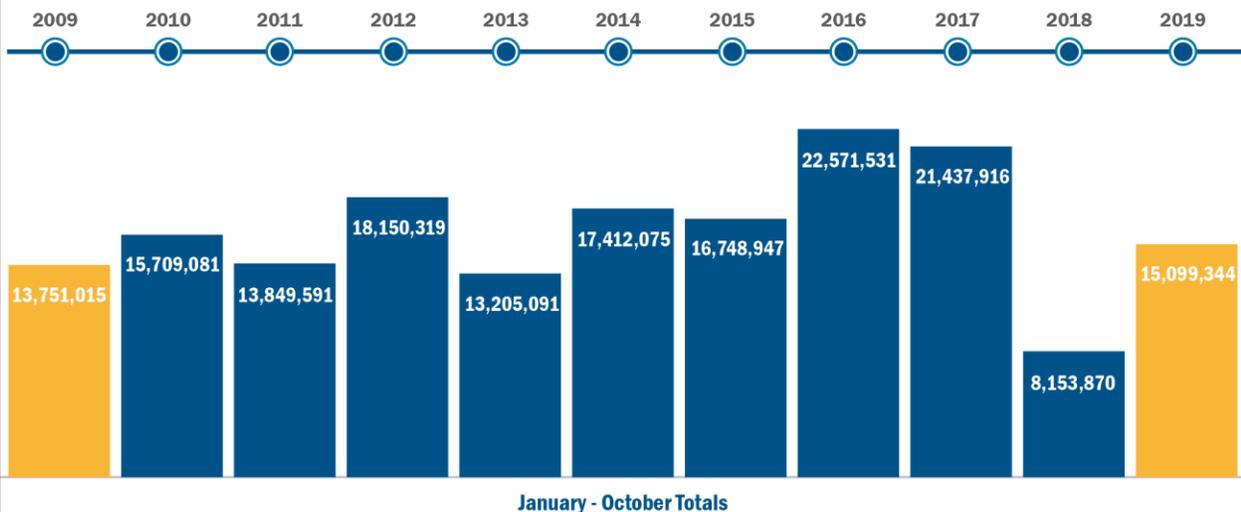
MMT = Unit of Measurements in Million Metric Tons

*Does not include the United States

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(U) US Exports of Soybeans to China from 2009 to 2019

This visualization shows the total US exports of soybeans to China from 2009 to 2018 between the months of January and October. These are then compared to the exports for January to October of 2019, showing that exports for this year are within a normal range.



Unit of Measurements in Metric Tons

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(U) Source Summary Statement

(U//FOUO) We assess with **medium confidence** that China is unlikely to fully substitute imports of US soybeans with imports from other countries due to the limited availability of other sources. This analysis relies heavily on a body of open-source data showing historical import and export data, USDA estimates of future supply and demand, and reports which communicate China's actions. Our confidence in our assessment would be elevated if there was longer time series data showing US soybean exports to China as well as during a year without high-impact low-probability events impacting demand such as the outbreak of African Swine Flu.

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- ³ (U) | AP | China Buys More US Soybeans As Trade Talks Kick Off | DOP: 28 MAR 2019 | <https://www.reuters.com/article/us-usa-trade-china-soybeans/china-buys-more-us-soybeans-as-trade-talks-kick-off-traders-idUSKCN1R925C>
- ⁴ (U) | Bloomberg News | China Puts US Soy Purchases On Hold As Tariff War Escalates | DOP: 30 MAY 2019 | <https://www.bloomberg.com/news/articles/2019-05-30/china-puts-u-s-soy-purchases-on-hold-as-tariff-war-escalates>
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- ⁶ (U) | United States Department of Agriculture – Economic Research Service | Interdependence of China, United States, and Brazil in Soybean Trade | DOP: 4 June 2019 | <https://www.ers.usda.gov/webdocs/publications/93390/ocs-19f-01.pdf?v=3881>
- ⁷ (U) | Congressional Research Service | Retaliatory Tariffs and U.S. Agriculture | DOP: 13 SEPT 2019 | URL: <https://fas.orgsgp/crs/misc/R45903.pdf>
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- ¹¹ (U) | United States Department of Agriculture – Economic Research Service | World Agricultural Supply and Demand Estimates (WASDE) | Accessed: 25 NOV 2019 | <https://apps.ers.usda.gov>
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- ¹⁴ (U) | United States Department of Agriculture – Foreign Agricultural Service | Brazil Oilseeds and Products Update: Soybean Harvest Forecast to Set Another Record, Exports to Rebound in 2019/20 | DOP: 19 June 2019 | https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=oilseedsandproductsupdate_Brasilia_Brazil_6-19-2019.pdf