

## The African Swine Fever Epidemic in China: Implications for U.S. Exports

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Reports of African Swine Fever (ASF) outbreaks have been increasing since August 2018, and the potential impact on the Chinese pork industry could be substantive. This EBOT provides an overview of the disease, a brief history of its spread in Asia, and its potential significant direct and indirect implications for U.S. exports.

### General Background

African Swine Fever (ASF) is a highly contagious and deadly virus that affects both domesticated and wild swine. The virus spreads directly through contact of animal body fluids and ticks, but also indirectly through contaminated vehicles or clothing or the consumption of infected feed items such as food scraps. Once a pig has ASF, it typically shows high fever, followed by anorexia and lethargy, leading to hemorrhaging and ultimately the animal's death in 7-10 days. There is no commercially available treatment or vaccine for ASF, and processing into consumer goods such as sausages do not necessarily inactivate the virus. Thus, the only way to stop African Swine Fever is to depopulate all affected or exposed herds, making it a very difficult disease to contain and control. ASF does not have any impact on human health, and cannot be transmitted from pigs or pork to humans.<sup>1</sup>

### ASF spreads throughout Asia

China first reported an ASF outbreak in the Liaoning province to the World Organization for Animal Health (OIE) in August 2018. Liaoning province in the northeast is one of China's largest hubs for swine production (figure 1). Since August 2018, ASF has quickly spread to other parts of the country, including the major producing regions in the South. In response, the Chinese authorities



Source: FAO, Accessed April 7, 2019. Mongolia: WAHIS, China: MARA, Viet Nam: MARD & media information. Cambodia: MAFF.

have set a quarantine on infected regions and have banned feeding of food scraps, creating a surplus of pork in the north and a deficit in the south. Despite these efforts, year-to-date, there have been 118 ASF cases reported to OIE in 28 provinces in China, resulting in about 1 million pigs being culled to limit the spread.<sup>2</sup>

<sup>1</sup> Further information available at USDA [Animal and Plant Health Inspection Service](#) and [World Organisation for Animal Health](#).

<sup>2</sup> [ASF Situation in Asia Update](#), Agriculture and Consumer Protection Department, FAO, April 2019. Actual number of animals affected by ASF may reach 200 million. (Rabobank, 2019)

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In addition to China, there is increasing evidence of ASF spreading throughout Southeast Asia. Mongolia reported its first outbreak in January 2019; Vietnam reported its first cases of ASF in February; and Cambodia reported its first case of ASF in March, continuing the disease spread throughout the region.

### **Direct Impact of ASF: Tailwinds for U.S. Pork**

Due to a production shortfall, China is expected to sharply increase imports of pork to satisfy domestic demand. USDA projects China to remain the world's largest pork producer and consumer in 2019, at 48.5 million tons and 50.5 million tons, respectively. While the share of reported Chinese culling in response to ASF is relatively small, aggressive liquidation and slaughter of hogs in response to the disease have led to a substantial impact on the global market, given the large size of China's pig herd. The Chinese government has reported a year-over-year 18.8 percent drop in pig herd, and industry expert estimates of the domestic supply shock reach 35 percent, representing a shortage of up to 17 million tons.<sup>3</sup> If the latter is realized, this could double the size of total world exports projected in 2019.<sup>4</sup> Overall pork demand in China may shrink, continuing a longer-term trend, but is unlikely to offset the potential supply shock of ASF.<sup>5</sup> Imports from the European Union, Canada, and Brazil are likely to fill China's demand, as U.S. pork products currently face higher tariffs totaling 62 percent due to retaliatory tariffs. The global shortage of pork may provide opportunities for U.S. exporters and support U.S. prices while the Chinese market continues to adjust to the ongoing impact of ASF.

### **Indirect Impacts of ASF – headwind for feedstuffs, but tailwind for other meats**

ASF could have further implications on non-pork U.S. exporters as well. First, any significant disruption to pork production is likely to reduce feed consumption,<sup>6</sup> potentially reducing the import demand for U.S. feedstuffs.<sup>7</sup> Reports indicate feed purchases are falling, and experts acknowledge that the reduction is ASF-related.<sup>8</sup> Lower Chinese demand may result in diversion of competing South American soybeans to other key markets, further dampening the global market share of U.S. soybeans. Additionally, exporters of alternative proteins such as chicken and beef may benefit. Reportedly, chicken meat is experiencing a spike in prices and demand, and beef consumption in high-income, urban areas is growing as well in China.<sup>9</sup> While the U.S. is a fringe player in the Chinese import market for both poultry and beef,<sup>10</sup> this shift in consumption patterns may provide additional opportunities through shifting trade flows.

**Sources:** [PSD Online database](#), Foreign Agricultural Service/USDA, accessed April 2019; [Global Trade Atlas](#), IHS Connect, Accessed April 2019; [ASF Hits Company Finances](#), Dim Sums blog post, 2019, [How will ASF Impact China Demand for U.S. Pork?](#), Hoosier Ag Today, 2019, [Spotlight on ASF: Impact on Chinese Meat Consumption](#), AHDB Pork, 2019; [Current and Potential Losses to the U.S. Red Meat Industry](#), U.S. Meat Export Federation, 2019; [Chinese feed companies report 20% demand slump: govt agency](#), AgriCensus, March 2019; [Rising African Swine Fever Losses](#), Rabobank, 2019; Livestock and Poultry GAIN Reports, Foreign Agricultural Service/USDA, March 2019.

<sup>3</sup> McCracken et al., [Rising African Swine Fever Losses](#), Rabobank, 2019

<sup>4</sup> Calculations based on industry report estimates (Rabobank, 2019) and USDA projections ([PSD Online](#), 2019).

<sup>5</sup> [Livestock and Poultry: World Markets and Trade](#), FAS/USDA, April 2019

<sup>6</sup> USDA April 2019 estimates show China's total protein meal consumption at 86.7 million tons, soybean meal equivalent, in 2018-19, down 2 percent from the previous marketing year.

<sup>7</sup> China's vertically integrated feed industry is the main consumer of imported feedstuffs such as soybeans and dried distillers' grains with solubles (DDGS).

<sup>8</sup> [Market Perspectives](#), U.S. Grains Council, March 2019

<sup>9</sup> Livestock and Products Semi-Annual, Foreign Agricultural Service GAIN Report, USDA, March 2019

<sup>10</sup> China does not import U.S. poultry based on an avian influenza ban since 2015. While the [BSE related ban was lifted](#) in June 2017, The U.S. is a minor player in the Chinese imported beef market and currently faces retaliatory tariffs.

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