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**Report Name:** Taiwan Food Security Situation Overview

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**Report Highlights:**

Since Taiwan's economy started taking off in the 1980s, larger disposable incomes have led Taiwan consumers to gradually demand diversification and broader options for their daily diets. This has led Taiwan to increasingly rely on imports to satisfy its growing demand for agricultural commodities for both human consumption and animal husbandry. To address the issue, on June 3rd, 2024, the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office in the United States (TECRO) signed a Memorandum of Cooperation (MOC) in Washington, D.C. to facilitate cooperation between the USDA's Foreign Agricultural Service (FAS) and Taiwan's Ministry of Agriculture (MOA) on expanding food security related cooperation and exchanges.

## **Taiwan's Agricultural Import Situation**

Since Taiwan's economy started taking off in the 1980s, larger disposable incomes have led Taiwan consumers to gradually demand diversification and broader options for their daily diets. This has led Taiwan to increasingly rely on imports to satisfy its growing demand for agricultural commodities for both human consumption and animal husbandry. Even with investments in modern farming technologies and practices, Taiwan will never be self-sufficient in all the commodities its consumer base demands. Limited farmland, water availability heavily dependent on yearly replenishment from unpredictable typhoon seasons, and the need to import fertilizers and planting seeds are all major limiting factors to significantly increasing domestic production.

In 2023, Taiwan agricultural and related imports stood at \$18.9 billion against exports of \$5.4 billion. Major import categories include soybeans (\$1.6 billion), beef and products (\$1.3 billion), corn (\$1.3 billion), dairy products (\$1.1 billion), fresh fruits (\$728 million), processed vegetables (\$579 million) and wheat (\$483 million). Taiwan also imports bulk commodities including sugar, palm oil, hay, cotton, rice, sesame, sorghum, barley, malt and oats.

In terms of product origin, the United States is the largest supplier (at \$3.9 billion, accounting for 21 percent of all imports) followed by Brazil (\$1.7 billion, 9 percent), China (\$1.4 billion, 7 percent), Japan (\$1.1 billion, 6 percent) and New Zealand (\$1 billion, 5 percent). The United States supplies both bulk and consumer-oriented products. Brazil mainly supplies bulk products. Japan and New Zealand, on the other hand, supply mostly consumer-oriented products.

## **Taiwan's Food Security Situation**

By Taiwan's Ministry of Agriculture (MOA) calculation, Taiwan's energy-weighted food self-sufficiency ratio (SSR) stood at 31 percent in 2022, which was the lowest in 10 years, while the price-weighted SSR stood at 59 percent. (See Appendix for details).

However, both ratios may underestimate Taiwan's actual reliance on imports. For example, domestic poultry and hog production which are shown to have high self-sufficiency ratios rely on imported grains and feed to maintain production. Taiwan is also a net importer for fertilizers. Thus, Taiwan's domestically grown crops including vegetables and fruits rely heavily on imported chemical fertilizers including potassium chloride, urea and monoammonium phosphate.

Rice is the only staple grain under MOA's support policy. According to Food Administration Act and Domestic Rice Safety Stock Standards, Taiwan's Agriculture and Food Agency (AFA) within the Ministry of Agriculture are required to maintain rice stocks equal to three months of Taiwan's annual consumption. However, with Taiwan consumers' diets increasingly being "westernized" and their demand for a wider variety of choices increasing, Taiwan's per capita rice consumption has been declining while wheat and meat consumption has increased. In 2022, per capita rice consumption was at

43kg, while per capita wheat flour consumption was at 38kg. It also marked the first year in record that meat consumption per capita (88kg) has surpassed grains consumption (87kg).

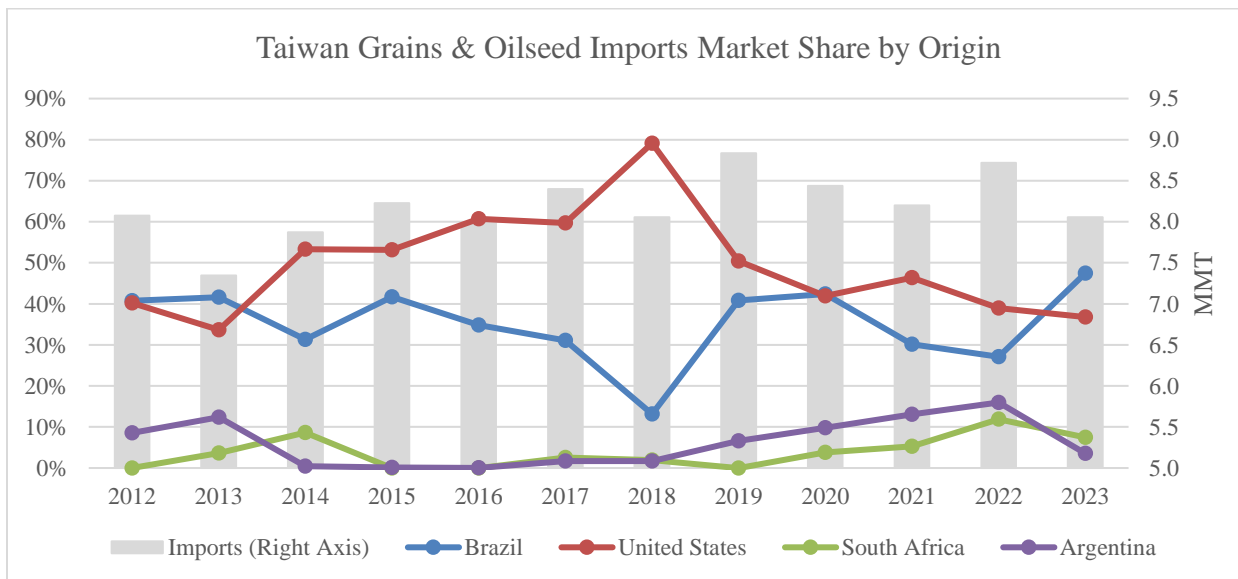
In recent decades, rice production has consistently exceeded consumption, creating excess stocks. MOA has been encouraging farmers to switch from rice to other stable crops including corn, soybean, wheat, and sorghum with varying degrees of success. However, even with subsidies the cost of production is still not always competitive with import alternatives.

Taiwan’s water availability is also a challenge to maintain a stable crop production. With extreme weather events becoming more common and Taiwan’s reliance on rainfalls and the typhoon season to replenish water availability in reservoirs, the possibility of water shortages is often only one two crop cycle away.

### Taiwan’s Demand for Grains & Oilseeds Imports

On average, Taiwan imports over 8 million metric tons (MMT) of grains & oilseeds annually, including approximately 4.0 MMT of corn, 2.6 MMT of soybeans, and 1.3 MMT of wheat. Taiwan historically relied on the U.S. to supply its agricultural commodity needs. However, import patterns have shifted in the past decade as crop production, especially in corn and soybeans, has continually expanded outside of North America. Brazil, Argentina, and South Africa are active sellers and Taiwan’s buyers have increasingly purchased from those suppliers when U.S. commodity prices are less competitive. As a result, the U.S. annual share of Taiwan’s grains and oilseeds imports have fluctuated between a wide range of 35 to 80 percent in the last ten years. (See Exhibit 1)

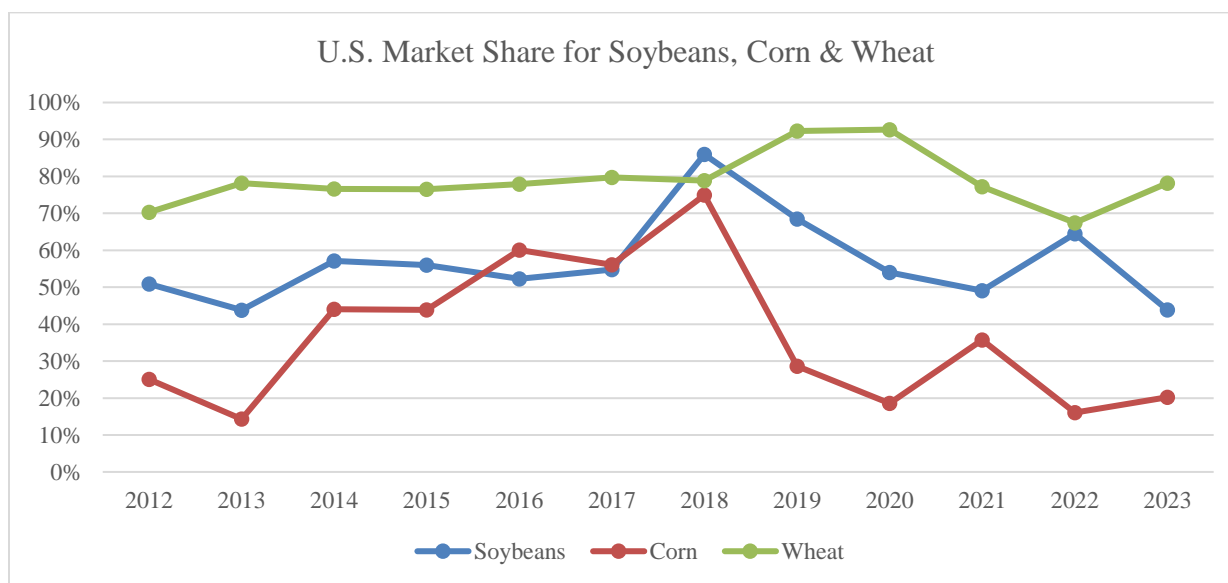
Exhibit 1: Taiwan Grains & Oilseeds Imports



Source: Taiwan Customs; Trade Data Monitor, LLC

Supply chain issues such reduced shipping volumes through the Panama Canal (which is critical for bulk shipment from the U.S. Gulf Coast to Taiwan) and containerized shipping availability (which can offer advantages for those shipping from the U.S. pacific coast) also play into shifting purchasing origins from year to year. Out of three major crops, the United States only consistently leads in market-share for wheat. (See Exhibit 2)

Exhibit 2: U.S. Market Share for Soybeans, Corn & Wheat



Source: Taiwan Customs; Trade Data Monitor, LLC

With limited storage for commodities other than rice on the island, Taiwan buyers rely on regularly scheduled bulk shipments coming in monthly to minimize storage requirements. On average there are 2.5 soybean, five corn, and 1.5 wheat vessels discharging product in Taiwan each month.

### Memorandum of Cooperation on Food Security between U.S. and Taiwan

With the memory of logistical disruptions during the Covid-19 pandemic still fresh, production challenges related to climate change, and the potential for disruptions due to geopolitical tensions in North Asia and the wider Indo-Pacific region, food security has again become a front and center concern.

To address the issue, on June 3<sup>rd</sup>, 2024, the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office in the United States (TECRO) signed a Memorandum of Cooperation (MOC) in Washington, D.C. to facilitate cooperation between the USDA's Foreign Agricultural Service (FAS) and Taiwan's Ministry of Agriculture (MOA) on expanding food security related cooperation and exchanges.

The United States and Taiwan will establish a bilateral mechanism and dialogue platform to exchange relevant information on production, supply, and demand through the public and private sectors, discuss strategies to strengthen food security and related trade practices, ensure Taiwan has a stable and continuous supply of grains, and promote bilateral agricultural trade and ensure food security.

## Appendix: Taiwan Food Security in Statistics

Exhibit 3: Selected Statistics from Taiwan's Food Balance Sheet (2022)

	Domestic production (kt)	Imports (kt)	Exports (kt)	Food supply per capita per year (kg)	Energy weighted SSR	Price weighted SSR
<b>1. Cereal</b>	<b>1,417</b>	<b>6,586</b>	<b>309</b>	<b>87</b>	<b>27%</b>	<b>38%</b>
Rice	1,252	154	169	43	104%	104%
Wheat	1	1,415	80	38	-	-
Corn	162	4,733	1	6	3%	3%
Sorghum	1	50	0		3%	3%
<b>2. Starchy roots</b>	<b>301</b>	<b>1,573</b>	<b>211</b>	<b>30</b>	<b>24%</b>	<b>21%</b>
Sweet Potato	224	1	1	8	100%	100%
Cassava	1	1,293	178	8	-	-
Potatoes	61	271	1	14	17%	17%
<b>3. Sugars &amp; honey</b>	<b>53</b>	<b>604</b>	<b>47</b>	<b>25</b>	<b>9%</b>	<b>22%</b>
<b>4. Pulses and oilseeds</b>	<b>67</b>	<b>2,919</b>	<b>14</b>	<b>19</b>	<b>3%</b>	<b>6%</b>
Soybeans	6	2,752	8	13	-	-
Peanuts	51	13	0	1	80%	80%
Sesame	2	38	0		5%	5%
<b>5. Vegetables</b>	<b>2,371</b>	<b>452</b>	<b>74</b>	<b>106</b>	<b>85%</b>	<b>83%</b>
<b>6. Fruits</b>	<b>2,490</b>	<b>626</b>	<b>131</b>	<b>115</b>	<b>83%</b>	<b>78%</b>
<b>7. Meat</b>	<b>1,632</b>	<b>557</b>	<b>8</b>	<b>88</b>	<b>74%</b>	<b>56%</b>
Pork	838	123	5	36	89%	88%
Beef	8	168	1	7	5%	5%
Poultry	784	243	1	43	76%	76%
<b>8. Eggs</b>	<b>483</b>	<b>4</b>	<b>2</b>	<b>20</b>	<b>100%</b>	<b>100%</b>
<b>9. Fish &amp; seafood</b>	<b>875</b>	<b>516</b>	<b>618</b>	<b>31</b>	<b>132%</b>	<b>83%</b>
<b>10. Milk</b>	<b>474</b>	<b>232</b>	<b>5</b>	<b>30</b>	<b>35%</b>	<b>35%</b>
<b>11. Oils and fats</b>	<b>396</b>	<b>390</b>	<b>40</b>	<b>22</b>	<b>n/a</b>	<b>n/a</b>
Vegetable	360	323	36	19	n/a	n/a
Animal	36	67	4	3	n/a	n/a
<b>Total</b>					<b>31%</b>	<b>59%</b>

Source: MOA's Food Balance Sheet (2022)

\* According to MOA, Food Self-Sufficiency Ratio (SSR) indicates the extent (percentage) to which domestic food consumption (including edible and inedible portion) relies on its own production resources and supplies. Price-weighted SSR utilizes a three-year moving average of farm prices and imported prices.

### Attachments:

No Attachments.