

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## China - Peoples Republic of

**Post:** Guangzhou

### **U.S. DDGS dashes for China. Mostly to the feed mills of Guangdong**

**Report Categories:**

Grain and Feed

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#### **Report Highlights:**

In 2008, U.S. DDGS exports to China climbed significantly to 6,007 tons valued over US\$2.18 million, 78 percent was bound for Guangdong province, the largest feed producer in China. As Chinese government limits domestic ethanol production, U.S. DDGS has great market potential because of its high and consistent quality, free of mycotoxins, and stable supply. The *U.S. Grains Council* offers assistance to U.S. suppliers to help register products with the China's *Ministry of Agriculture* (MOA) and promotes DDGS use among Chinese millers and livestock farmers.

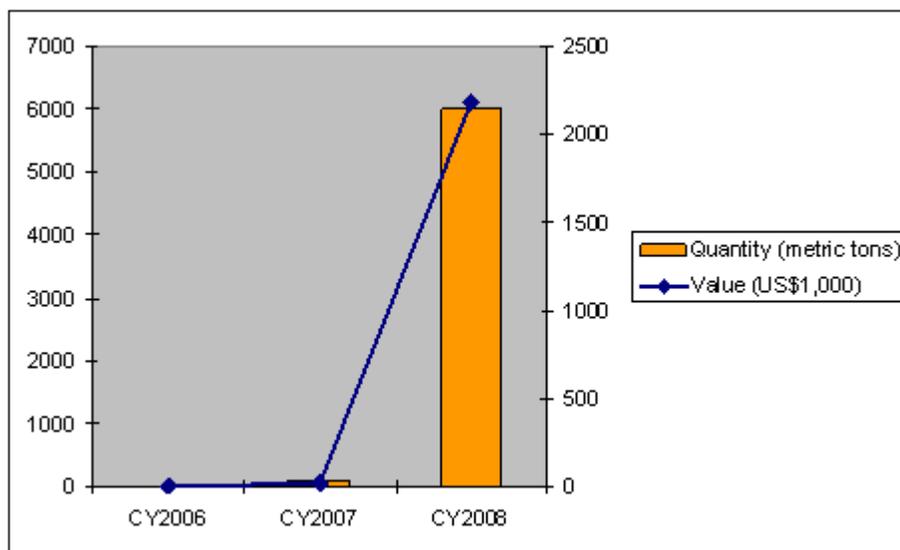
#### **General Information:**

This report provides a snapshot of the recent trade situation as well as market outlook for U.S. DDGS exports to South China based on ATO Guangzhou talks during June 2009 with key Distiller's Dried Grains with Solubles (DDGS) importers and industry tour members to feed mills that utilize the product.

It began as a trickle in 2007. Since then, U.S. DDGS exports to China have climbed dramatically to 6,007 tons valued over US\$2.2 million in 2008.

#### China's Imports of U.S. Distillers' Grains

	CY 2006	CY 2007	CY 2008
Quantity (metric tons)	0	101	6,007
Value (US\$1,000)	0	15	2,183



Source: World Trade Atlas; China Customs data, Commodity Code: 2303.3000

The upward market trend continues in 2009. According to *China Customs* data, from January to April, China bought 4,492 tons U.S. DDGS valued US\$983,000. According to *U.S. Grains Council (USGC)*, the US exported 10,000 tons valued US\$1.9 million to China in the first five months of 2009, already exceeding 2008 trade volumes.

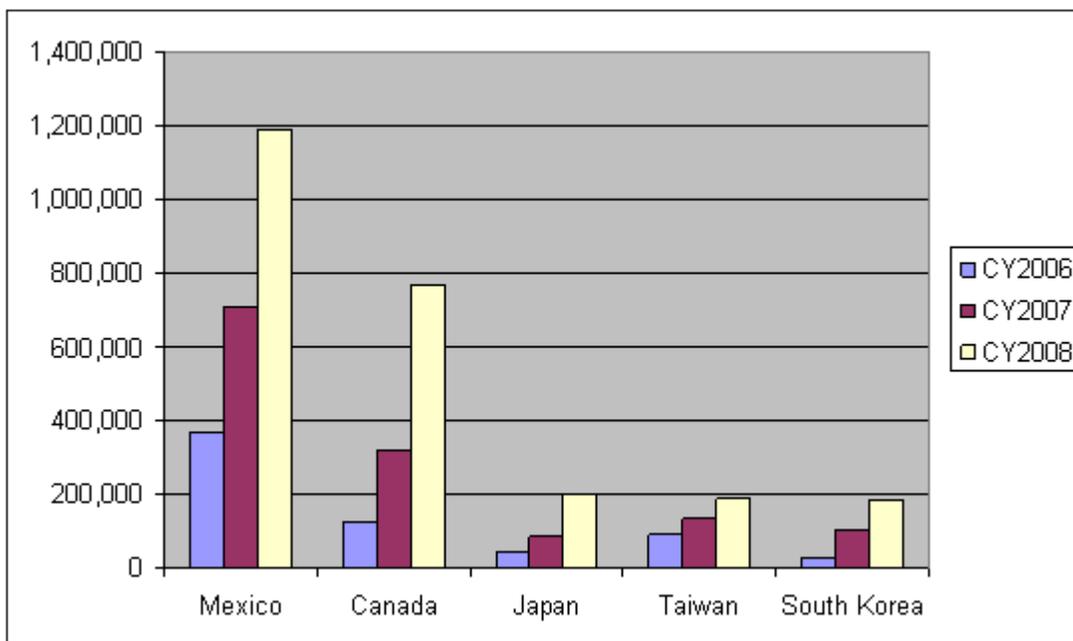
After purchasing the first ever U.S. DDGS shipment to China in 2007, Guangdong continues to lead with imports. According to *China Customs*, 78 percent of U.S. DDGS enters Guangdong via the Huangpu port. Qingdao ranks second accounting for 15 percent. The rest enter Beijing, Nanjing, Ningbo and Shanghai ports.

Despite the leap in imports, China still accounts for a small percentage of U.S. DDGS exports which reached 4.5 million tons in 2008. Mexico and Canada are the largest importers because their rail systems

are connected with U.S. ones. Shipments can be easily transported directly from U.S. ethanol plants to Mexican and Canadian feed mills. Across the Pacific Ocean, the largest Asian buyers are Japan, Taiwan and South Korea. Each bought over 180,000 tons in 2008.

**U.S. Exports of Distillers Grains: CY 2006-2008 in metric tons**

	<b>CY 2006</b>	<b>CY 2007</b>	<b>CY 2008</b>
Mexico	367,386	708,216	1,188,766
Canada	123,022	318,864	771,791
Japan	45,248	83,586	198,014
Taiwan	92,824	134,404	189,451
South Korea	24,587	102,529	184,723
<b>World Total</b>	<b>1,253,653</b>	<b>2,358,248</b>	<b>4,510,383</b>



*(Source: BICO; Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics)*

Given its large population, growing economy and limited arable land, China has voracious appetite for protein feed ingredients. In 2008, it imported 37.4 million tons of soybeans to produce oil for human consumption and soymeal for livestock feeds. In China, **Guangdong is the largest feed producer**. It produces 15 million tons of feed per year and requires 600,000 tons DDGS as ingredients. U.S. DDGS has 25-32 percent protein and 10 percent fat. It is a good source of protein, energy and fat as well as phosphorus and fiber for livestock and aquaculture.

***So, what keeps China from buying more U.S. DDGS, and what should the U.S. industry do about it?***

**Competition from Chinese DDGS**

In 2008, China produced over 150 million tons of corn. According to a veteran Chinese DDGS trader, China can produce 4 million tons of corn based distillers grains yearly. However, due to inefficiency and low profit, in 2008, China only produced 3 million tons. The key production area is in Northeast China,

comprised of Jilin province (highest quality), Heilongjiang and Liaoning. The largest ethanol plant is the *Jilin Fuel Alcohol Company* which can annually process 1.3 million tons corn producing 400,000 tons fuel and 320,000 high quality DDGS.

### Chinese DDGS vs. American DDGS

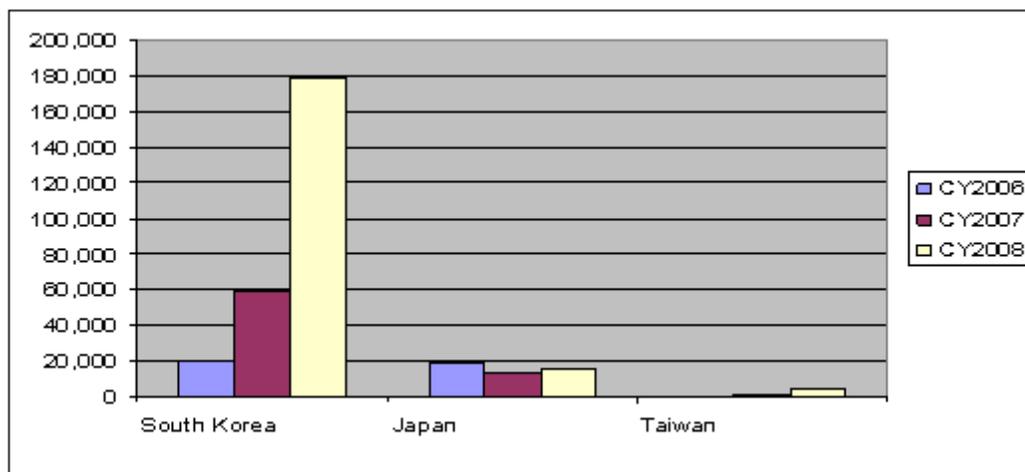
	Chinese DDGS	American DDGS
Production: current and future outlook	<b>4 million tons</b> capacity, but actual production is 3 million; corn or grain based ethanol production is limited by the Chinese government which needs to ensure food supply.	Now 31 million tons Should increase 7 million tons Total <b>38 million tons</b>
Quality	<b>A few are good quality:</b> 28 percent protein, 7 percent fat. A large percentage is poor due to heat damage during processing: dark color with smell of smoke.	<b>Most are good quality:</b> 25-32 percent protein, 10 percent fat; golden color (highly digestible amino acid); desirable smell like freshly made bread. Note: Some quality U.S. DDGS have dark color resulting from excessive solubles added to DDG.
Mycotoxins	<b>Very high</b> for those grown in Henan, Hebei and Shandong, due to high moisture and rainfall during harvest seasons. It limits DDGS usage in swine feed. Mycotoxins may affect sow's fertility and cause piglet deaths.	<b>Very low.</b> Thanks to cold and dry weather in U.S. corn belt areas.
Supply	<b>Unstable</b> , due to inefficient production and capped production. <b>Supply will be short in summers</b> when ethanol plants run out of corn.	<b>Stable</b>
Mode of transportation to Guangdong	<b>From the North:</b> at ethanol plants all DDGS are bagged (50 kg or 110 pounds each), then loaded into containers at plants. <ul style="list-style-type: none"> <li>Ethanol plants to Dalian or other northern ports: in containers by rail or truck</li> <li>Northern ports to Guangzhou ports: in containers by vessel</li> <li>Guangzhou ports to mills: in containers by truck or barge (bagged DDGS may be unloaded at ports or at mills)</li> </ul> <b>From the central and east</b> (Henan, Hebei and Shandong): all DDGS are bagged and transported by truck	All U.S. DDGS are exported to China by containers in bulk so far. <ul style="list-style-type: none"> <li>Some containers are loaded in the Midwest such as Chicago and Kansas City</li> <li>Some DDGS are sent by train in bulk to western ports, then loaded into the containers</li> <li>U.S. ports to Guangzhou: by vessel</li> <li>Guangzhou ports to mills: by truck (unloaded and bagged at port; or unloaded from containers at mills)</li> </ul> <b>Future alternative:</b> U.S. ports to Chinese ports : by large bulk vessels such as Panamax bulk ships
Transportation time	From the North: <b>20 to 30 days</b> From the Central and East: <b>2-3 days</b>	<b>40 – 60 days</b>
Costs per ton (US\$):	<ul style="list-style-type: none"> <li>Ex Workshop in the North: \$ 235</li> </ul>	<ul style="list-style-type: none"> <li>Ex Workshop: \$ 170</li> <li>U.S. inland transport: 30</li> </ul>

1US\$=RMB6.82 (Note: These are individual transactions in May 2009. They may not reflect actual market prices on average)	<ul style="list-style-type: none"> <li>• Transportation: 51</li> </ul> <b>Total : \$286</b>	<ul style="list-style-type: none"> <li>• Ocean freight: 50</li> <li>• Tariff (5% of CIF): 13</li> <li>• Misc.(Chinese port fees, inspection fee &amp; transport to mills): 30</li> </ul> <b>Total: \$ 293</b>
	(Guangdong avoids buying DDGS from the Central and East due to high mycotoxins levels.)	(by container; if by bulk vessel, prices could be reduced) (If DDGS is unloaded and bagged at Guangzhou ports, it costs US\$10.26 per ton.)

It is also noteworthy that in 2008 China exported 203,826 tons DDGS valued US\$44.7 million, of which 88 percent (178,511 tons DDGS valued US\$37.9 million) went to South Korea which approximates Northeast China. The rest are mostly shipped to Japan, Taiwan and Southeast Asia.

**China's Exports of Distillers Grains: CY 2006-2008 in metric tons**

	<b>CY 2006</b>	<b>CY 2007</b>	<b>CY 2008</b>
South Korea	19,416	59,234	178,511
Japan	19,181	13,076	15,757
Taiwan	143	684	3,980
<b>World Total</b>	<b>39,838</b>	<b>79,108</b>	<b>203,826</b>

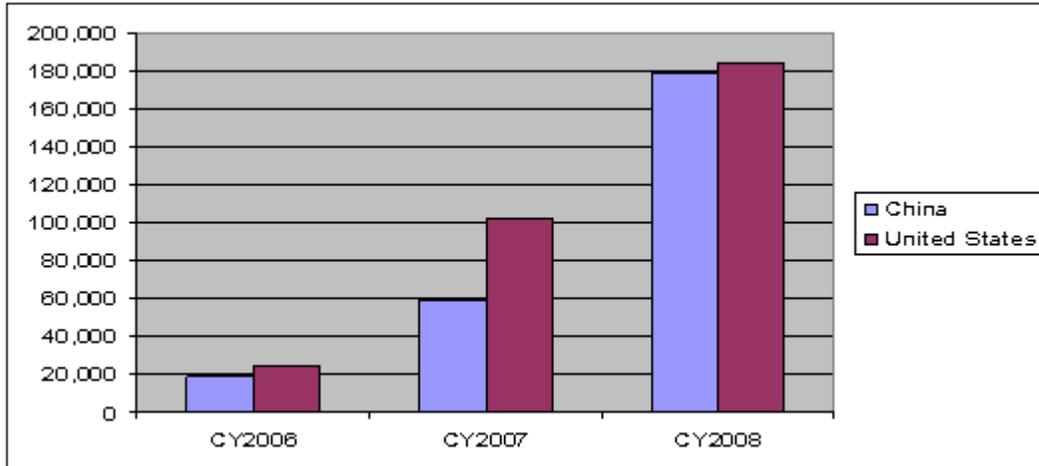


(Source: World Trade Atlas; China Customs)

China's exports to South Korea can even compete with the US, but U.S. prices have become more competitive.

**South Korea's Imports of Distillers Grains: CY 2006-2008 in metric tons**

	<b>CY 2006</b>	<b>CY 2007</b>	<b>CY 2008</b>
China	19,416	59,234	178,511
United States	24,587	102,529	184,723



*(China's Data Source: World Trade Atlas; China Customs; U.S. Data Source: BICO; Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics)*

To conclude, in South China, U.S. DDGS, in general, is more competitive than normal Chinese counterparts in terms of quality, appearance, nutritional value and mycotoxin levels. Given Chinese government limits on domestic ethanol production and demand from other Chinese regions and South Korea, U.S. DDGS can outpace Chinese ones (even high quality competitors) in Guangdong with consistent and stable supply.

**Shortage of containers**

The economic slowdown has impacted U.S. consumer demand for Chinese imported industrial products; as a result, fewer containers are available to ship U.S. agricultural products back to China.

According to two U.S. exporters, they can only quote for shipments three months ahead of time because of uncertain container supply and ocean freight prices.

The ultimate solution is to ship DDGS to China by bulk vessels, as for soybeans and wheat to slash shipping costs and further elevate U.S. DDGS competitiveness.



### **MOA feed registration**

According to USGC, under Chinese law, regulated and administered by the *Ministry of Agriculture* (MOA), processed feed grains products/ingredients like DDGS must have MOA registration approval before they can be legally imported. Thus, U.S. DDGS producers who want to export to China must follow up with an official application, product review, approval and registration process.

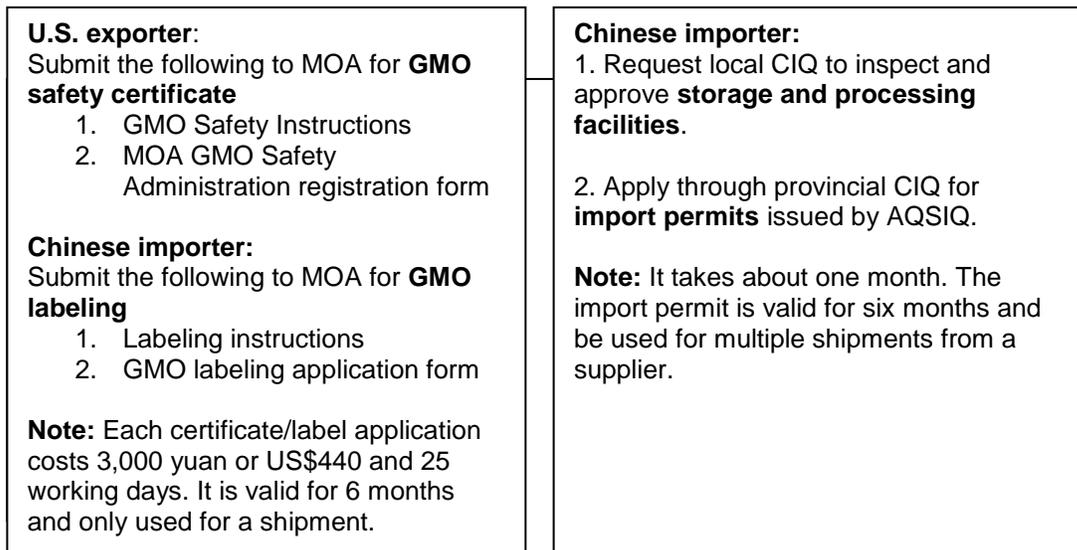
After the first shipment to China in 2007, U.S. DDGS has been traded in small and containerized shipments without proper MOA feed registration. However, neither U.S. sellers nor Chinese buyers are likely to assume much greater risk associated with possible rejection of unregistered bulk shipments.

This registration requirement presents a significant challenge for future and larger DDGS trade with China.

In response, USGC initiated a service, as of June 1, 2009, to assist member U.S. DDGS suppliers who want to obtain MOA registration. Interested members may contact Mike Callahan, USGC senior director of international operations for Asia, at [mcallahan@grains.org](mailto:mcallahan@grains.org), or Kim Karst, USGC manager of

international operations for Asia, at [kkarst@grains.org](mailto:kkarst@grains.org).

### Import procedures based on Guangdong trader information



**U.S. exporter:**  
Submit the following to MOA for **GMO safety certificate**

1. GMO Safety Instructions
2. MOA GMO Safety Administration registration form

**Chinese importer:**  
Submit the following to MOA for **GMO labeling**

1. Labeling instructions
2. GMO labeling application form

**Note:** Each certificate/label application costs 3,000 yuan or US\$440 and 25 working days. It is valid for 6 months and only used for a shipment.

**Chinese importer:**

1. Request local CIQ to inspect and approve **storage and processing facilities**.
2. Apply through provincial CIQ for **import permits** issued by AQSIQ.

**Note:** It takes about one month. The import permit is valid for six months and be used for multiple shipments from a supplier.

After purchase contracts are signed and shipments initiated, U.S. exporters provide Chinese importers the following **importation documents**: Bill of Lading; Packing List; Commercial Invoice; Weight Certificate; Certificate of Analysis; Phytosanitary Certificate; Certificate of Origin and Insurance Policy.

Seven to ten days before shipments arrive at Chinese ports, importers should apply with local Customs for the **exemption of value added tax (VAT, 13%)**.

After arrival, it generally takes three days for **Customs clearance** and five days for **document submission to CIQ** which needs 15 days to complete **testing on GMO and melamine**. Before CIQ testing results are ready, DDGS containers may be released and stored in importers/millers' facilities approved by CIQ.

**14 days free demurrage period** is needed; a demurrage day costs RMB200 or US\$29.



Millers are recommended to build a slope for containers trucks to ride on. It helps DDGS with unloading.  
Once all testing results are cleared, CIQ notify millers that may proceed to use imported DDGS.

**Outlook and promotion**

Once MOA registration has been successful, U.S. DDGS market potential shows great promise, particularly in Guangdong and other South China regions. The most important factor impacting sales would be **price** subject to:

1. **U.S. domestic demand:** Given U.S. livestock farmers are the largest consumers, they have the most influence on DDGS market prices. For instance, recent DDGS prices are high mainly because U.S. swine farmers use more DDGS in rations to substitute soymeal.
2. **Demand from Mexico and Canada:** as above mentioned, they are main buyers of U.S. DDGS.
3. **Soybean meal and other feed ingredients prices:** Because DDGS provides protein, energy and fat, its price is influenced by soybean meal (mostly from U.S. beans, crushed in coastal Chinese cities), corn (mostly from Northeast China), cotton seed meal (Hunan, Hubei and some from Xinjiang), rapeseed meal (Hunan, Hubei and Canada) and yellow grease (from all over China).
4. **Ocean freight:** petroleum prices and the recovery of international trade will impact ocean freights.
5. **Chinese DDGS prices:** According to a trader, millers usually are willing to pay a premium of RMB50 or US\$7.33 for U.S. DDGS over same quality Chinese ones.



Another factor would be the **Chinese government's attitude** towards U.S. DDGS imports. Media reports on waves of criticism about U.S. imported soybeans dominating the China market. As a result, the government has become cautious and sensitive about grain imports such as corn and DDGS. If repeated attempts to obtain MOA registration for U.S. DDGS prove futile, that could point to Chinese government intent to curb imports.

Given DDGS is a relatively new feed ingredient, **promotion activities are key** to educate millers/livestock farmers as well as boost sales.

**DDGS use in feed rations**

	<b>Swine</b>	<b>Poultry</b>	<b>Aquaculture</b>	<b>Ruminant</b>
Current usage %	1.5	5	5	10
USGC recommended %	10-20	10-15	10-30	20-40

The above chart indicates there is big room for additional DDGS usage in feed. In South China, promotion focus should be on swine and poultry (particularly yellow feather broiler chicken) which consume most manufactured feed. USGC has obtained USDA funds to establish a swine raising technical extension center in South China.

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