The Office of Agricultural Affairs (OAA/Beijing) forecasts China’s fresh potato production in MY2012/13 at 83.5 million metric tons (MMT), a decrease of two percent from last year, resulting in 450,000 MT in potato starch production. Frozen French Fry production continues an upward growth trend in response to growing domestic demand from an expanding fast food industry. Consumption expectations for potato and potato products in China remain strong which will support continued US Frozen French Fry exports to China. Market access for fresh US potatoes remains under technical discussion. Lower potato starch imports are attributable to additional duties placed on EU-origin products. The majority of China’s Frozen French Fry exports to Japan, its major market, are re-exports from the United States.
Commodities:
Potato Products, Frozen

Production

China is the world’s largest potato producer, accounting for more than 20 percent of total production and 25 percent of total acreage, but suffers from a relatively low potato yield – about one-third that of the United States due to poor seed potato quality.

Fresh potatoes

OAA/Beijing estimates that China’s MY2012/13 fresh potato production (harmonized schedule (HS) 070190) will fall by two percent to 83.5MMT as low potato prices last year resulted in an acreage decline. According to China’s Ministry of Agriculture (MOA), Sichuan, Gansu, Inner Mongolia, Yunnan and Guizhou provinces are China’s top potato producing provinces, accounting for over 50 percent of total domestic production.

Processed potatoes

Although China’s potato processing sector accounts for less than 10 percent of total production, China is targeting a 20 percent rate by 2015. Shepody and Atlantic are the two most popular varieties. Starch, chips, frozen french fries (FFF), and dehydrated potatoes are the most prominent products. China reportedly has over 5,000 potato processing enterprises of which 140 are considered large scale integrated operations. These enterprises are located primarily in Heilongjiang, Inner Mongolia, Ningxia, Gansu, Yunnan, and Guizhou provinces.

Potato starch

China’s potato starch production is forecast at 450,000 MT in MY2012/13, a drop of nearly 14 percent from last year, due to lower domestic potato production, according to the Potato Food Committee of China’s National Food Industry Association. This decline in raw material compounds the potato processing industry, which currently operates at less than half its 1MMT processing capacity. China’s potato starch processing capacity began expanding after China imposed antidumping duties on European potato starch imports in 2007. Low capital and technology requirements for potato starch production have contributed to further expansion in processing capacity. Industry sources claim there are thousands of potato starch plants of varying size, with 90 percent considered small operations.

Potato starch demand is supported by the food processing sector and other industrial sectors such as textiles, paper milling, chemical, and pharmaceutical products.
Frozen French Fries (FFF)

OAA/Beijing forecasts China’s FFF production (HS 200410) in MY2012/13 at 130,000 MT. Production for MY2011/12 reached 100,000 MT, a 10 percent decrease from the previous year due to an outbreak of potato late blight disease in 2011 which destroyed significant resources held in storage. FFF production growth is expected to continue an upward growth trend over the next few years. For example, a new processing line with a production capacity of 50,000 MT was built in Inner Mongolia and is expected to produce in the new season.

Potato Chips

In response to strong market demand, potato chip production has increased rapidly over the last few years. Post estimates that China’s production of sliced potato chips and fabricated potato chips is 160,000 MT and 180,000 MT respectively in MY2012/13, a 15 percent and 20 percent increase from the previous year. Sources note that China has over 50 sliced potato chip processing lines and 60 fabricated potato chip processing lines.

Consumption

Potatoes are an inexpensive and popular vegetable in China. OAA/Beijing forecasts among fresh potatoes, 60 percent are for table consumption, 10 percent for feed, 10 percent for processing, 15 percent damaged from storage and transportation, and 5 percent for seed potatoes. “Favorite” is the most popular table variety, especially in Southern China.

The popularity of western-style food has created strong market demand for FFF and other potato based products. Western-based fast food outlets, such as KFC and McDonalds, are the largest FFF consumers in China, accounting for 75 percent of total FFF consumption. Industry estimates that FFF consumption will continue annual increases of 25 percent due to China’s rapid fast food industry development. Along with global outlets like KFC and McDonalds, large numbers of small local fast food restaurants are also increasing. For example, CNHLS, a Fujian-based fast food restaurant chain, which mainly serves hamburgers and French fries, has established about 1,500 outlets in China’s 23 provinces since 2007. Most CNHLS outlets have been built in medium-to-small sized cities.

The food processing sector is the major consumer of potato starch along with other industrial sectors such as textiles, paper milling, chemical, and pharmaceutical products. Fabricated potato chip makers are the major users of dehydrated potatoes; dehydrated potatoes are also used in other snack foods and in Western style dishes like mashed potatoes.

Imports
Potato Starch: OAA/Beijing forecasts China’s potato starch (H.S. code: 11081300) imports will fall to 18,500 MT in MY2012/13, a 20 percent decrease from last year, due to China’s imposition of antidumping duties on EU potato starch, which came into effect on September 17, 2011. China’s potato starch imports declined in MY2011/12 to 23,349 MT, representing a 57 percent decrease from MY2010/11, largely due to the rebound of domestic production and the impact of new duties.

Background on the Antidumping Case

![Graph: Trade Impact from China's Antidumping Duties on EU Potato Starch Import]

Despite China’s anti-dumping duties, ranging from 17 to 35 percent imposed on most European Union (EU) potato starch products since February 2007, record level imports continue. In response to concerns raised by China’s potato industry China’s Ministry of Commerce (MOFCOM) launched an anti-subsidy investigation on EU-origin potato starch. On September 16, 2011, MOFCOM ruled that European Union exports of subsidized potato starch products negatively affect domestic producers. As a result, China imposed additional duties from 7.5 to 12.4 percent on EU potato starch effective on September 17, 2011. This was China's first anti-subsidy probe into imports from the European Union.

Frozen French Fries (FFF): OAA/Beijing forecasts China’s FFF imports (H.S. Code: 20041000) at 145,000 MT in MY2012/13, a 15 percent increase from the MY2011/12 of 123,543 MT, largely due to the growing fast food outlet demands. The United States continues to dominate China’s FFF imports sector, accounting for about 80 percent of total imports, with Belgium, the Netherlands, and Canada supplying the remaining 20 percent.

China’s rapidly expanding import demand for FFF products is attributable to three factors:
• Rapid development of fast food outlets: Consumption has averaged a 20-25 percent annual increase since 2008 due to fast food outlet growth, including KFC, McDonalds, and local fast food chain restaurants. Local fast food service outlets source primarily from domestic production.

• Supply Gap: Domestic production in MY2011/12 declined by 10 percent; with a 15 percent increase in demand, the supply gap was filled by imports.

• Price Gap: According to industry sources, the price gap between imported FFF and locally-produced FFF has narrowed to around 10 percent from over 40 percent two years ago, in response to appreciation of the Chinese Yuan and rising domestic production costs. The narrowing price gap makes imported FFF more price competitive with locally produced FFF.

Fresh Potatoes: Securing market access for fresh potatoes is a top priority for the US potato industry. While China’s General Administration of Quality Supervision, Inspection, and Quarantine (AQSIQ) has initiated a pest risk assessment and ongoing technical discussions, very little progress has been made. No other country has access to China’s fresh potato market.

Exports

OAA/Beijing forecasts China’s MY12/13 fresh potato and potato product exports at 350,000 MT, down from a revised 356,657 MT in MY 11/12. Malaysia, Vietnam, and Russia are China’s three largest export markets. OAA/Beijing estimates that China’s FFF exports in MY2012/13 will reach 16,000 MT, as strong domestic demand continues to support an export recovery from a slump two years ago, regaining export volume of 15, 506 MT in MY 11/12. Japan is the largest market for China’s FFF, accounting for over 70 percent of total exports. The majority of China’s FFF exports are re-exports of U.S. FFF.

Policy

Domestic Policy: China plans to expand potato acreage to 8 million hectares with production of 150 million metric tons (MT) by 2015, according to the Potato Processing Industry Development Plan (2011-2015) from the Ministry of Industry and Information Technology and the Ministry of Agriculture (MOA). Projected yields are also expected to reach 20 MT/ha (from a reported 15.7 MT/ha in 2010). The yield increase will be accomplished by expanding the application of virus-free seed potatoes to cover more than 50 percent of total potato acreage by 2015.

Standards: The Frozen French Fries Industry Standard was drafted by the Potato Food Committee of China’s National Food Industry Association and leading FFF producers in China, (SB／T10631- 2011) and approved by MOFCOM on December 1, 2011. See Appendix I for a full translation. On July 18, 2012, the Standardization Administration of China (SAC) notified to the World Trade Organization a
National Standard of the People’s Republic of China on Seed Potatoes as G/TBT/N/CHN/920. This version revised the previous standard, GB 18133-2000, which was released in 2000. This standard applies to seed potatoes production, inspection, trade, and supervision. The report on this standard can be found under related GAIN reports below.

**China’s Tariff Rates**

<table>
<thead>
<tr>
<th>HS Code</th>
<th>Potato Imports</th>
<th>Trade Agreement Partner Nations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0701.1000</td>
<td>Fresh, (including seed) 13% MFN*</td>
<td>ASEAN 6.5% Pakistan 0% Chile 0% New Zealand 0% VAT* 13%</td>
</tr>
<tr>
<td>0701.9000</td>
<td>Fresh (not elsewhere specified (NESOI), except seed) 13% MFN*</td>
<td>ASEAN 5% Pakistan 0% Chile 0% New Zealand 0% VAT* 13%</td>
</tr>
<tr>
<td>0710.1000</td>
<td>Frozen un/cooked by steaming or boiled in water 13% MFN*</td>
<td>ASEAN 6.5% Pakistan 0% Chile 0% New Zealand 0% VAT* 13%</td>
</tr>
<tr>
<td>2004.1000</td>
<td>Frozen (prepared or preserved (not by vinegar or acetic acid)) <em>includes FFF 13% MFN</em></td>
<td>ASEAN 8.7% Pakistan 6.5% Chile 0% New Zealand 5.2% VAT* 17%</td>
</tr>
<tr>
<td>1105.1000</td>
<td>Flour, meal and powder 15% MFN*</td>
<td>ASEAN 12% Pakistan 0% Chile 0% New Zealand 0% VAT* 17%</td>
</tr>
<tr>
<td>1105.2000</td>
<td>Flakes, granules and pellets 15% MFN*</td>
<td>ASEAN 12% Pakistan 4.5% Chile 0% New Zealand 0% VAT* 17%</td>
</tr>
<tr>
<td>1108.1300</td>
<td>Starch 15% MFN*</td>
<td>ASEAN 12% Pakistan 0% Chile 0% New Zealand 0% VAT* 17%</td>
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</tbody>
</table>

*MFN, Most Favored Nation; VAT, Value-Added Tax
Source: China’s Tariff Schedule 2012

**Production, Supply and Demand Tables**

<table>
<thead>
<tr>
<th>Fresh Potatoes</th>
<th>2010 Revised</th>
<th>2011 Estimate</th>
<th>2012 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Year Begin</td>
<td>09-2010</td>
<td>09-2010</td>
<td>09-2011</td>
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<tr>
<td>Area Planted</td>
<td>0</td>
<td>4,850,000</td>
<td>5,205,000</td>
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<tr>
<td>Area Harvested</td>
<td>0</td>
<td>4,850,000</td>
<td>5,205,000</td>
</tr>
<tr>
<td>Beginning Stocks</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Production, Commercial</td>
<td>0</td>
<td>73,000,000</td>
<td>81,535,000</td>
</tr>
<tr>
<td>Imports</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Supply</td>
<td>0</td>
<td>73,000,000</td>
<td>81,535,000</td>
</tr>
<tr>
<td>Exports, Fresh</td>
<td>0</td>
<td>400,000</td>
<td>320,000</td>
</tr>
<tr>
<td>Processing</td>
<td>0</td>
<td>7,300,000</td>
<td>8,150,000</td>
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<tr>
<td>Domestic Fresh Market</td>
<td>0</td>
<td>44,000,000</td>
<td>48,900,000</td>
</tr>
<tr>
<td>Feed Waste</td>
<td>0</td>
<td>21,300,000</td>
<td>24,165,000</td>
</tr>
<tr>
<td>Total Dom. Consumption</td>
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<td>72,600,000</td>
<td>81,535,000</td>
</tr>
<tr>
<td>Ending Stocks</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Distribution</td>
<td>0</td>
<td>73,000,000</td>
<td>81,535,000</td>
</tr>
</tbody>
</table>
## Potato Products, Frozen

<table>
<thead>
<tr>
<th></th>
<th>2010 Revised</th>
<th>2011 Estimate</th>
<th>2012 Post Estimate</th>
<th>MT 2012 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>USDA Official Post</td>
<td>09-2010</td>
<td>09-2011</td>
<td>09-2012</td>
<td>09-2012</td>
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<tr>
<td>Sales Estimate</td>
<td>09-2010</td>
<td>09-2011</td>
<td>09-2012</td>
<td>09-2012</td>
</tr>
<tr>
<td>New</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Production</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Imports</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Supply</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Exports</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Domestic Consumption</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ending Stocks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Distribution</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Beginning Stocks

- **2010**: 0
- **2011**: 0
- **2012**: 0

### Production

- **2010**: 0
- **2011**: 0
- **2012**: 0

### Imports

- **2010**: 0
- **2011**: 0
- **2012**: 0

### Total Supply

- **2010**: 0
- **2011**: 0
- **2012**: 0

### Exports

- **2010**: 0
- **2011**: 0
- **2012**: 0

### Domestic Consumption

- **2010**: 0
- **2011**: 0
- **2012**: 0

### Ending Stocks

- **2010**: 0
- **2011**: 0
- **2012**: 0

### Total Distribution

- **2010**: 0
- **2011**: 0
- **2012**: 0

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### Related GAIN Reports:

- **National Standard of Seed Potatoes**:

- **Potato Annual 2010 (includes information on China’s seed subsidy program)**:
Appendix I

ICS 97.130.20
J 73
Record No.: 33702—2011

Industrial Standard for Domestic Trade of the People's Republic of China

SB/T 10631—2011

Frozen French Fries

Date of Issue: August 10, 2011       Date of Effectiveness: December 1, 2011

Issued By the Ministry of Commerce of the People's Republic of China
Preface

This standard is drafted according to GB/T 1.1-2009.
This standard is proposed by Potato Products Profession Committee of China Food Industry Association put forward.
This standard is identified by Commerce Department of the People's Republic of China.
Drafted by: Landun Xumei Food Co., Ltd, Liaoning Shenbo Biotechnology Co. Ltd, Inner Mongolia Hengyuan Agriculture Co. Ltd
Draftsman: Wang Wei, Xu Kaisheng, Zhang Jingyu, Hao Xu, Huang Yanmei, Huang Weijing, Zhang Lei, Guo Biao, Jia Xiaohong, Li Yuehui

Frozen Potato French Fries

1 Scope
This standard stimulates terms and definitions, requirements, test methods, inspection rules, logo, packaging, transportation and storage of frozen potato French fries.
This standard is applied to the frozen potato fries defined in 3.1.

2 Normative reference
The following documents are indispensable for the application of this document. Only the versions of the references noted with date are suitable for the document. The latest versions (including all the revised lists) of those without noting date are applied to this standard.

- GB/T 191 Logos for packing, storage and transportation
- GB 2716 Hygienic standards of edible vegetable oil
- GB 2760 National food safety standards Food additives use standards
- GB 2762 Contaminants limit in food
- GB 2763 Maximum pesticide residue limit in food
- GB 4789.4 National food safety standards Food hygiene microbiology examination Salmonella inspection
- GB 4789.10 National food safety standards Food hygiene microbiology examination Staphylococcus aureus inspection
- GB 5009.12 National food safety standards Determination of lead in food
- GB/T 5009.37 Methods for analysis on health standards for edible vegetable oil
- GB/T 5009.56 Methods for analysis on health standards for pastries
- GB 5749 Sanitary standard for drinking water
- GB 7718 National food safety standards General rules for prepackaged food labels
- GB 10146 Hygienic standard for eligible animals oil and fat
- GB 14881 Food enterprises general health norms
- GB 19295 National food safety standards Quick-freezing flour and rice products
- NY/T 1605 Potatoes for processing Fried
- No. 75 (2005) Management methods for quantitatively-packed commodities metrological supervision issued by China's General Administration of Quality Supervision, Inspection and Quarantine

3. Terms and definitions
3.1 Frozen potato french fries
Fresh potatoes are made to products through being cleaned, peeled, cut to strips, bleached and scalded, dried, fried, and pre-cooled, frozen, low temperature stored, and then transported and marketed under freezing conditions, and then re-heated before eating.

4 Requirements
4.1 Raw materials potatoes
Potatoes shall conform to the speculations of NY/T 1605.

4.2 Auxiliary materials
4.2.1 Edible oil
It shall conform to regulations of GB 2716, GB 10146.

4.2.2 Production water supply
It shall conform to regulations of GB 5749.

4.2.3 Other auxiliary materials
National related standards shall be followed.

4.3 Food additives
4.3.1 Quality should comply with the requirements of relevant national standards or industry standards.

4.3.2 Application scope and dosage shall conform to regulations of GB 2760.

4.4 Sense organ requirements
Sense requirements shall conform to the regulations of table 1

<table>
<thead>
<tr>
<th>Items</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td>Bar-type is complete without obvious debris</td>
</tr>
<tr>
<td>Color and lustre</td>
<td>Color is basically balanced without fried and parched color</td>
</tr>
<tr>
<td>Flavor</td>
<td>natural flavor of this product without abnormal odor</td>
</tr>
<tr>
<td>Impurities</td>
<td>Without visible impurities and foreign body</td>
</tr>
</tbody>
</table>

4.5 Health indicators
4.5.1 Limit of contaminants and limit shall conform to regulations of grains and their products in GB 2762.
4.5.2 Staphylococcus aureus, salmonella limited in microorganism shall conform to the provisions of GB 19295 microorganism products.

5. Hygiene requirements for products processing
GB 14881 shall be conformed to.
6 Test methods

6.1 Sense organ inspection

Put the samples in a clean and dry white porcelain plate, and cut them apart with a knife in quartering; conduct color, shape and impurities inspection with visual method in natural light. Inspect the inherent potato fragrance which shall not have abnormal odor through smelling. Please have a taste and make evaluations.

6.2 Health indicator inspections

6.2.1 Lead

Implement it according to the methods specified in GB 5009.12.

6.2.2 Staphylococcus aureus

Implement it in line with the methods specified in GB 4789.10 plate count method.

6.2.3 Salmonella

Implement it in line with the methods specified in GB 4789.4.

7 Inspection rules

7.1 Batch

The products belong to the same batch with the same divisions of production and packing, varieties, levels, and net content.

7.2 Sampling

Take samples from each batch of products at random, and the amount of sampling shall not be less than 2kg.

7.3 Ex-factory inspection

Each batch of products shall be inspected by inspection department of the production enterprises in accordance with this standard, and can be delivered with qualified inspection and qualified product certificate being issued. The items for ex-factory inspection include: sense, net content, staphylococcus aureus and salmonella.

7.4 Type inspection

7.4.1 In normal production conditions, a type inspection shall be conducted every half year, and the tests shall also be conducted in one of the following conditions:

a) Identification of new products;
b) After being put into products, if the great changes of raw materials and production process may influence the product quality;
c) When the production is restored after stopping more than half a year;
d) When there are great differences between the results of ex-factory inspection and previous type inspection;

e) When there are requirements proposed by national quality supervisory organs.

7.4.2 Type inspection items contain all items specified in the standard.

7.5 Decision rules

7.5.1 The products can be identified to be qualified products when the items for ex-factory inspection or type examination can conform to the standards.

7.5.2 If microorganism index in the inspection results cannot meet the standards, re-inspection is forbidden, and the products shall be identified as qualified products.

7.5.3 If there is any of the items for ex-factory inspection or type inspection cannot meet the standards, sampling review must be redoubled. If the standard cannot be followed after re-inspection, the products are identified to be non-qualified products.

8 Packing

8.1 Packing containers and materials shall comply with the relevant national health standards and regulations.

8.2 The net content of the quantitatively packed commodities shall conform to Metrological Supervision and Management Methods for Quantitative Packing Goods.

9 Labels and identifications

9.1 The Labels of one-piece packaging products should be consistent with GB 7718 and relevant state regulations.

9.2 Transportation signs should comply with requirements of GB/T 191.

10 Storage

Products shall be stored in the -18 °C ± 2 °C refrigerator which is clean and dry, and shall be stored in line with varieties, so as to avoid extrusion and other damages.

11 Transportation

Products shall be shipped in special product food boxes, and food refrigerator shall be used during transportation; the highest temperature during the transportation process shall not be higher than -12 °C, and keep the compartments clean, dry, without abnormal odor and pollution-free; avoid sunlight and rain during transportation; products shall not be transported with those which are poisonous and harmful and have peculiar smell or influence on products quality.