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China, Peoples Republic of Frozen Potato Products Annual 2006

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Report Highlights:

Table potato production and consumption is down, but processed potato products enjoy excellent market expansion opportunities, driven by western-style and fast food outlet expansion and increased consumption of snacks and other prepared foods. Media reports of the health risks associated with fried potato products hurt MY 05/06 FFF and potato based snack food consumption. Consumption is forecast to rebound 10 percent to 86,000 tons in MY06/07, however. Despite 68 million metric tons of potato production, potatoes for processing are in short supply.

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Executive Summary

Table potato production and consumption is down, but processed potato products enjoy excellent market expansion opportunities, driven by western-style and fast food outlet expansion and increased consumption of snacks and other prepared foods. As consumer incomes continue to increase and lifestyles change, potato chip and dehydrated potato flake consumption is estimated to grow by about 15-20% annually in cities. While there is a sustained increase in the demand for processed potato products, domestic supply is insufficient to meet this rising demand. Imports have increased despite production shortages in Australia, Canada and the U.S., and prices are up.

Media reports of the health risks associated with fried potato products hurt marketing year (MY)05/06 frozen French fry (FFF) and potato based snack food consumption. As a result, MY05/06 FFF consumption is estimated down 6 percent. Consumption is forecast to rebound 10 percent to 86,000 tons in MY06/07, however. Menu promotions and educational campaigns marketing the potato as a healthy food and part of a balanced diet will help rebuild consumer acceptance of frozen potato products. A key component of the marketing message is science and objectivity in media reporting on food safety related issues.

Production

Potatoes are the fourth largest and most important staple crop in China after wheat, rice and corn. However, most fresh potatoes produced are of inferior quality and unusable in potato chip and FFF processing. This is due primarily to being crowded off of fertile lands by other cash crops, antiquated management practices, varietal shortcomings and other quality control measures. Inner Mongolia, Gansu, Yunnan, Guizhou, Sichuan and Heilongjiang are the top potato producers, collectively accounting for more than 60 percent of China's total potato production.

Fresh Potato Production Stable in MY06/07

Droughts in Inner Mongolia and Gansu provinces during both the planting and growing seasons negatively affected 2006 yields. Consequently, China's MY06/07 fresh potato production is forecast to reach 68 million tons, down 4 percent from 71 million tons in MY05/06. The MY06/07 potato production area is forecast to grow slightly in MY05/06 to 4.9 million ha while production forecast to be down slightly as farmers shift production to lower productivity land.

Six Percent of Domestically Produced Fresh Potatoes Processed

Processed potatoes consume about six percent of total potato production, with potato starch, potato chips, FFF and dehydrated potatoes being the most prominent users. Starch milling accounts for five percent of total potato production while potato chips, dehydrated potatoes and frozen French fries collectively account for about one percent of total potato production.

Industry sources estimate that about 50 percent of fresh potatoes are consumed as a staple food. This is especially relevant in Northern and Western China, where the comparatively cold climates are less suitable for grain production, and potatoes are widely produced. Chinese potato dishes, generally steamed or baked, are a cheap and popular part of regional cuisine.

The remainder of fresh potato production is used as animal feed, as seed, or lost to waste. Loss due to spoiling during storage and transportation is estimated to amount to 14 percent of total potato production, according to industry sources.

| Potato Use in Food and Processing Sector (%) | | | | | | |
|--|---------------|--------------------|----------|--------|--|--|
| Food staple | Processed for | Processed for FFF, | Feed and | Losses | | |
| and Vegetable | Starch | Chips and Dehys | Seed | | | |
| 50 % | 5% | 1% | 30% | 14% | | |

Sources: Post survey on industry sources

To meet the processing sector's growing demand, seed researchers and farmers are experimenting with different potato varieties. The two most highly valued qualities of processing potatoes are high starch content (for starch milling) and low sugar content (for FFF and chip production).

Potato Chip Production Relies on Local Chipping Potato Production

China's 2005/06 fried potato chip production is estimated at 45,000 tons, requiring an equivalent of 180,000 tons of potatoes for chipping. Industry sources estimate that there are approximately 25 potato chip producers in operation in 2006. Several of these also produce pressed (fabricated) potato chip products. To ensure chipping potatoes meet quality standards, most processors usually contract with individual farms and offer seeds and technical assistance to producers. In order to guarantee year-round potato supply, some large potato chip (and FFF) producers have set up regional production bases in both Northern and Southern China. Additionally, these producers have also invested in storage facilities. In recent years, major chip processors have increasingly funded seed research programs in production regions to improve crop quality. Minor potato chip producers, in contrast, are generally incapable of providing technical assistance or investing in storage facilities, satisfying their needs through supply contracts and direct purchasing at local markets.

Starch and Dehydrated Used in Both Traditional and Western Foods

Potato starch production in MY06/06 is estimated at 450,000 tons, requiring the equivalent of 3.6 million tons of fresh potato. Industry sources estimate that potato starch production will grow 10-15% annually driven by rapid growth in food processing and industrial sectors like textiles and paper milling.

The food-processing sector is a major consumer of potato starch. An example of this is vermicelli, whose popularity as an ingredient in Chinese "hot pot" dishes has led to increased starch demand. Dehydrated potato production in MY05/06 is estimated at 15,000 tons in MY06/06. Most is used in the manufacturing of compressed chips. A smaller portion is used in Western-style mashed potatoes. Due to increasing consumer acceptance of potato-based snack foods and Western fast food, dehydrated potato production is projected to expand by at least 15-20 percent annually.

Quality Potato Shortages Peel Away Frozen French Fry Production Capacity

Potatoes dedicated to the production of frozen French fries in MY05/06 are estimated at 70,000 tons. Processing requirements reduce this to 35,000 tons of FFF. Currently, four production lines are in operation and are located in Beijing, HeilongJiang, Shanxi, Gansu and Yunnan. Industry estimates are that FFF production capacity exceeds 100,000 tons annually. Aggregate production is less than 35 percent of capacity due to an inadequate supply of quality processing potatoes. None of the four primary production lines, the newest of which opened in 2005 in Heilongjiang, are running at capacity and industry sources report that the lack of quality potatoes limited the processing season at some plants to three or four months.

Assuming potato quality can meet FFF production requirements, the production forecast for MY06/07 is up almost 30 percent from the previous year to 45,000 tons.

Potatoes in potato chip and FFF processing have specific requirements, including variety, starch/sugar content, size and shape. Such quality-specific potatoes require tailored growing conditions and appropriate irrigation and fertilizer. The result is that potato chip and FFF-grade potatoes compete with grains and other cash crops for fertile land.

Large international producers of processed potato products have established potato plantations in both Northern and Southern China which include storage facilities to ensure a reliable and high-quality potato supply. Minor chip producers generally lack the expertise required to properly store crops.

Fresh Potato Production Support Minimal

Potato producers receive no government support. In areas dominated by grain production, however, the government discourages potato production by encouraging farmers to increase grain output through production support. In such regions, including Central and Southern China, potato acreage is forecast to decrease from MY05/06. Potato expansion is projected to occur primarily in Inner Mongolia, Gansu and Guizhou provinces, due to better profitability compared with competing crops. This trend will continue as research institutes in Mongolia, Gansu and Guizhou develop and introduce higher yielding virus-free potatoes.

Food Service Sector Drive French Fry and Dehy Potato Consumption

China's food service sector has enjoyed double-digit growth for 15 years, a trend expected to continue as income rises. From 2004 to 2005, China's food service sector revenue rose 18 percent to \$111.1 billion (RMB888.7 billion). Estimates for 2006 surpass \$125 billion (RMB1000 billion). Fast food, especially Western-style fast food, is one of the fastest growing sectors, led by Kentucky Fried Chicken (KFC) and McDonalds. By February 2006, KFC had opened over 1500 restaurants in China compared to 1,200 restaurants at the end of 2004 and will open 300-400 in 2006. McDonald's had about 600 restaurants in China by February 2006 and moved its Chinese headquarters from Hong Kong to Shanghai at the beginning of 2005 to better develop its business in mainland China.

While FFF are available at certain retail outlets, at-home consumption of FFF will be negligible. Depending on the marketing efforts, at-home dehy potato consumption could increase significantly, but from a very small base.

FFF Consumption will Expand Despite Health Scare

China's domestic FFF consumption is estimated at 78,000 tons in MY05/06. Western style food outlets are the largest FFF consumers in China, accounting for 75 percent of total consumption. The remainder is marketed through HRI outlets and retail stores (20 percent and 5 percent, respectively). MY05/06 FFF consumption is estimated to decline by 6 percent from MY04/05, mainly the result of health concerns following reports linking acrylamide to eating fried food. MY06/07 FFF consumption is forecast to rebound 10 percent to 86,000 tons. Market participants are optimistic the trend will continue as per-capita FFF and potato chip consumption is low in China. Growing incomes and the increased availability of processed and snack potato products should bolster long-term demand growth despite the short-term supply situation.

Consumer Awareness Piqued by Media Stories

The media has played a vital role in raising Chinese consumer awareness of the importance of healthy eating and maintaining a healthy lifestyle. In March 2005, Chinese media cited FAO/WHO reports that starch-based foods, such as potato chips and French fries, can contain acrylamide, a carcinogen, when cooked at high temperatures. In response, on April 13, 2005, China's Ministry of Heath (MOH) suggested that Chinese consumers avoid eating excessive amounts of fried food. In addition, MOH provided consumers with a list of high acrylamide content foods; fried potato products ranked first (followed by fried cereal food, baked cereal food, instant coffee, barley tea and corn tea). Total FFF consumption dropped, compounded by some fast food outlets replacing French fries with alternate menu choices.

Separately, a 2006 primetime TV advertisement promoting non-fried instant noodles as a healthy alternative to the traditional fried instant noodle also negatively affected potato chip popular perception and sales. The advertisement reflects growing consumer sentiment that fried foods, and especially French fries, are unhealthy and the cause of a significant portion of childhood obesity. As a result, leading potato chip manufacturers are now developing non-fried potato-based snacks.

As health concerns increasingly factor into U.S. potato product's target consumers, building an effective response will be a key overall marketing message. Getting the message that potato products are an important part of a balanced diet and a component of a healthy lifestyle will require targeting marketing channels through seminars, media events, media missions and educational material for intermediate consumers and end users.

Trade

Numerous Phytosanitary Issues Limit U.S. Fresh Potato Opportunities

Except for Alaska seed potatoes (discussed below), U.S. potatoes face numerous phytosanitary import barriers. The U.S. has requested China perform a pest risk assessment. While technical discussions continue between U.S. and Chinese regulators, numerous obstacles remain and there is no target date for overcoming them and developing an import protocol. During recent discussions, however, the government of China suggested pursuing a risk assessment for potatoes for processing indicated the greater opportunity to mitigate risks on potatoes for processing make it easier and less time consuming to develop an import protocol.

China's Fresh Potato Exports Take Sprout

China's fresh potato exports for table consumption have been growing rapidly in recent years as the Chinese government works to establish closer trade ties with its neighbors. In MY05/06, China's fresh potato exports rose 60% from the previous year to 329,000 metric tons. The strong export growth is attributed to the following factors: a comparatively low production cost, seed improvement, and freight rate advantages to nearby markets. Trade sources report that Chinese fresh potato exports to neighboring Asian countries is forecast to expand rapidly, albeit from a small base.

| China Fresh Potato Exports by Destination 2001-2006 (in 1,000 metric tons) | | | | | | | | |
|--|---------------|----------------|----------------|----------------|----------------|--|--|--|
| HS (0701) | Sep 01-Aug 02 | Sept 02-Aug 03 | Sept 03-Aug 04 | Sept 04-Aug 05 | Sept 05-Aug 06 | | | |
| World | 109 | 140 | 180 | 206 | 329 | | | |
| 1 Malaysia | 43 | 53 | 73 | 77 | 102 | | | |
| 2 Russia | 5 | 10 | 17 | 39 | 72 | | | |
| 3 Vietnam | 7 | 26 | 37 | 39 | 69 | | | |
| 4 Mongolia | 27 | 28 | 27 | 29 | 44 | | | |

| 5 Singapore | 15 | 14 | 10 | 10 | 13 |
|-------------|----|----|----|----|----|
| 6 Hong Kong | 0 | 2 | 2 | 2 | 12 |
| 7 Thailand | 1 | 2 | 8 | 4 | 6 |
| Others | 10 | 5 | 6 | 6 | 11 |

Potato Chips Imports Stable...

Chinese Customs data does not specifically cover potato chip imports, Post analysis suggests that despite domestic demand, imports are not expected to increase significantly, even as consumers become less price conscious about their snack food purchasing decisions. Imported potato chips represent about 15 percent of the potato chip market, most of which are pressed potato chips. An estimated 60,000 tons of potato chips (including the compressed varieties) were sold in China in MY06/06. Of this, compressed varieties accounted for 30 percent of the chip market, about 50 percent of which were imported. Trade sources estimate that imported potato chips (including compressed varieties) account for less than 5 percent of the processed potato market in China.

Starch and Dehydrated Potato Imports Continue to Expand

Potato starch and modified starch products' wide range of applications in food processing, pharmaceutical, textile and paper milling industries helped China's potato starch imports double in MY05/06. This trend is forecast to continue in coming years as a result of continued growth in the food processing and industrial sectors and domestic supply limitations. The import of dehydrated potatoes, an important ingredient in Western food, particularly mashed potatoes, is also expected to rise in coming years.

| | China Potato Starch Imports in metic tons (HS code 110803) | | | | | | | | | | |
|----|--|--------|--|--------|---------------|--|--|--|--|--|--|
| | Country Sep 02-Aug 03 | | Country Sep 02-Aug 03 Sep 03-Aug 04 Sep 04-A | | Sep 05-Aug 06 | | | | | | |
| 0 | World | 25,732 | 21,874 | 43,126 | 95,839 | | | | | | |
| 1 | Netherlands | 9,339 | 4,267 | 16,790 | 37,862 | | | | | | |
| 2 | Germany | 7,739 | 2,787 | 10,637 | 29,395 | | | | | | |
| 3 | Denmark | 4,061 | 7,908 | 6,551 | 10,762 | | | | | | |
| 4 | France | 1,800 | 4,692 | 2,938 | 8,538 | | | | | | |
| 5 | Poland | 1,943 | 1,318 | 3,504 | 7,064 | | | | | | |
| 6 | Sweden | 15 | 0 | 1,777 | 1,187 | | | | | | |
| 7 | Korea, North | 250 | 308 | 651 | 676 | | | | | | |
| 8 | Japan | 271 | 341 | 251 | 285 | | | | | | |
| 9 | Thailand | 5 | 39 | 16 | 44 | | | | | | |
| 10 | United States | 4 | 25 | 0 | 19 | | | | | | |
| | Others | 306 | 189 | 12 | 6 | | | | | | |

| | China Dehydrated Potato Imports in metric tons (HS Code 110510.110520) | | | | | | | | | | |
|---|--|---------------|---------------|---------------|---------------|--|--|--|--|--|--|
| | Country | Sep 02-Aug 03 | Sep 03-Aug 04 | Sep 04-Aug 05 | Sep 05-Aug 06 | | | | | | |
| C | World | 1,597 | 1,830 | 2,121 | 3,813 | | | | | | |
| 1 | Germany | 808 | 1,449 | 1,594 | 1,282 | | | | | | |
| 2 | United States | 296 | 240 | 185 | 951 | | | | | | |
| 3 | France | 0 | 0 | 0 | 600 | | | | | | |
| 4 | Poland | 0 | 0 | 0 | 270 | | | | | | |
| 5 | Denmark | 64 | 0 | 18 | 252 | | | | | | |

| 6 Netherlands | 360 | 51 | 270 | 210 |
|-----------------|-----|----|-----|-----|
| 7 Belgium | 0 | 0 | 0 | 170 |
| 8 Spain | 31 | 20 | 29 | 29 |
| 9 Canada | 26 | 0 | 0 | 22 |
| Others | 11 | 70 | 25 | 29 |

Short Crop Leaves FFF Exporters Unable to Meet Demand

FFF imports accounted for about 70 percent of total frozen potato product consumption in 05/06 (H.S. Code: 20041000), estimated at 54,782 tons. While FFF consumption is forecast to increase in MY06/07, China's MY06/07 FFF imports are forecast to remain unchanged from the previous year. This is due to a short 2006 potato crop in major FFF exporting countries, including the Australia, Canada, and the U.S.

According to China Customs data, the United States is China's dominant FFF supplier, accounting for 61 percent of China's total MY05/06 frozen potato imports. Competition, however, is intensifying between the U.S. and lower-priced product from Canada, the Benelux countries, and New Zealand. Canada's aggressive sales techniques and low transportation costs increased Canada's share of the FFF market to 29 percent (16,146 tons) in MY05/06, up from 21 percent (13,131 tons) in MY04/05. Most of the gain came at U.S. expense. The U.S. share of China's FFF imports in MY05/06 decreased to 61 percent (33,662 tons) from 67 percent (41,452 tons) in MY04/05.

If new Chinese plants can be supplied sufficient quantities of quality raw potatoes to meet their designed output capacity, some companies hope to expand their market share in China or export to other Asian markets, like Japan and South Korea. While expanded production will depend on the limited ability to expand processed potato production, China's MY05/06 FFF exports increased 30 percent from MY04/05 to 11,552 tons, of which 11,350 tons went to Japan. China's MY06/07 FFF exports are forecast to increase 12 percent due to significant Japanese demand.

Limited Cold Chain Distribution Cools FFF Import Competitiveness

FFF distribution costs from China's ports to its vast and poorly serviced interior, requiring either refrigerated railcars or trucks, drives up the cost of imported FFF in interior cities. Precisely because of this freight disadvantage, FFF imports are most competitive in affluent and populous coastal cities. The reach of fresh potatoes, dehydrated potato products, and potato chips is less constrained due to their minimal shipping requirements.

Alaska Seed Potato Introduction to China

With the exception of Alaskan seed potatoes, China does not allow fresh potato imports in order to prevent the introduction of disease and pests into China.

China approved Alaskan seed potato imports in 2003. The first shipment, which arrived in 2005, was suspended due to reports of finding diseases while in quarantine. Seed potatoes from Alaska were re-introduced to China in early 2006 and are now being tested for planting in Yunnan province. According to researchers, no quarantined diseases were found in any of these potatoes. There are also similar tests and collaboration programs with seed potato research in major production regions, including Inner Mongolia and Heilongjiang. As farming methods evolve and seed research progresses, potato yields and quality will continue to improve, to the benefit of FFF and chip processors.

| H.S. Code | Products | Import duty | | Import VAT | |
|-----------|--------------------------------|-------------|------|------------|------|
| n.s. code | ode Products | | 2006 | 2005 | 2006 |
| 07101000 | Potatoes, frozen | 13% | 13% | 13% | 13% |
| 20041000 | Potatoes, preserved o/t by | 13% | 13% | 17% | 17% |
| | vinegar or acetic acid, frozen | | | | |

Marketing

While demand for processed potato products is growing at between 10 to 30 percent, depending on the product, as consumption shifts away from table potatoes, total potato consumption declines.

Table Potatoes the "Inferior" Vegetable

The "main course" of any Chinese meal is either rice or noodles, complemented by meat and vegetable side dishes. As incomes increase, this traditional notion of rice or noodles as the centerpiece of Chinese meals is changing. Even outside the context of Western food, in some circumstances, like large banquets, Chinese consumers are beginning to think of meat as the main course. Still, outside of Western cuisine, potatoes will complement not replace rice or noodles.

As incomes rise in both rural and urban China, even in the north, where there is a traditionally a higher consumption of starchy foods, table potato consumption is down, reflecting the fact that it is an inferior good – that is, as incomes rise, consumption declines.

As a traditional part of the Chinese diet, table potatoes are not marketed by domestic concerns and there are significant phytosanitary market access issues for non-Chinese table potatoes.

Starch and Dehy

Demand for industrial- and food-use potato starch and dehydrated potatoes for processed potato products has expanded in response to increased demand for processed products. While industrial starch is mostly price driven, Demand for food starch and dehydrated products has expanded in response to increased demand for snack foods and mashed potatoes at food service outlets. While locally produced dehy potatoes are reportedly of reasonable quality, domestic demand has not been able to keep up with growth, estimated at 15-20 percent, and with production down after poor crops in Australia, Canada and the U.S., U.S. exports of dehy potatoes were up to China almost 500 percent and prices have been high during the later half of the MY05/06 marketing year.

Targeting the affluent Shanghai market, where tastes are more "flexible" and consumers more willing to diverge from traditional Chinese flavors, ready to eat mashed potatoes in single serving sizes, called "Magic Potato" are a new-to-market product that has sold quite well. After initial market promotion in Shanghai, Magic Potatoes are now being marketed in Northern China as well.

As with all new-to-market products, the three key components to an effective marketing campaign are 1) adequate research to know your target market, 2) well placed advertising and strategic public relations and marketing efforts, and 3) a well developed distribution channel.

Potato chip's world-wide popularity are reflected in China, but Post notes that anecdotal reports are that the brisk sales and consumer acceptance gained by the Magic Potato suggest market opportunities for healthy and nutritious, easy to eat products, like dehydrated potatoes.

Snack foods...the Booming Demand for Potato Chips

Snack foods are a "luxury good" that have responded to China's unprecedented economic expansion and the commensurate increase in the demand for higher value products. Demand for snack foods are increasing by 15-20 percent annually, driven by a shift away from traditional, and less convenient, snack foods like fruit and unshelled nuts, to processed, easy to eat foods.

Demographics and taste preferences influence the penetration of potato chips in the snack market. First, The North China palette, where potatoes are regularly consumed and food is traditionally made with more salt and more oil, are particularly suited to marketing potato chips. Second, young consumers, including the 20-somethings and only-children still living at home are excellent target consumers. They are more likely to adopt potato chips as a regular snack food and have a longer consumption life. Chinese parents with only one-child are particularly susceptible to product marketing, purchasing products that make their child happy. Third, the most popular potato chips are those with flavors that are engineered for the local palette.

Consistent with global trends, potato chips are one of the most popular snack foods in China, even in the South where sweet snacks compete with potato chips, and grazing, public snacking, and eating on the run are less prevalent; last year's growth is estimated at 30-40 percent. So-called Asian flavored chips, including shrimp and BBQ (which suits the Chinese taste for spicy food, have sold increasingly well as the novelty of more traditional Western flavors, plain or onion and sour cream, have worn off.

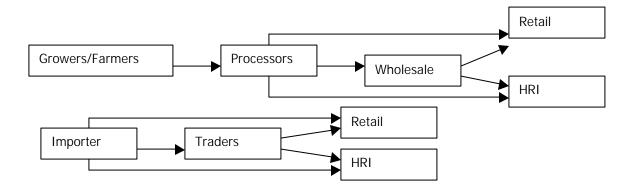
In response to booming demand, domestic production of potato chips has exploded. International brands, including Pringles which has been in the market over 15 years and is dominant in the pressed chip market, Lays, and the Philippine based Oishii dominate the market. In the last 2 years, however, smaller local competitors are increasingly eating into the growth opportunities the larger players have enjoyed.

The international players developed their market through imported potato chips, but except for Pringles, have migrated to a domestic production model. Imported chips, if they are shipped in bags, have a tendency to break in transit, have a shorter shelf life, and can be more expensive.

Market opportunities abound in a retail sector where growth of 15 percent is considered normal and distributors target 30-50 percent to keep products on the shelf. New products and new flavors, tailored to the regional and generational differences, including the small but growing interest in "healthy foods," will drive consumption. Marketing potato chips as an adjunct to lunch is virtually untapped.

As noted above, the three key components to an effective marketing campaign are research, effective marketing, and distribution. Probably the single most important constraint on the market development of potato chips is the shortage of potatoes for chipping.

Distribution channel for potato chips (chart)



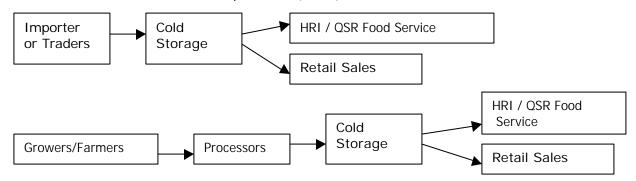
The Ubiquitous Fried Potato

Frozen Potatoes are primarily used in the HRI sector, principally in Western style facilities. As product innovations bring new shapes and flavors to market, competing products are further expanding this growing sector. Most expansion is in the Western style food sector. This sector would benefit from marketing support communicating that potatoes are an important part of a health lifestyle.

Frozen French fries have not been marketed significantly to the traditional Chinese HRI sector. While standard cut French fries are not on the Chinese menu, specialty cuts, slivers (for dudousi) and chunks served with stewed beef (for tudou xiao niurou) are served in many Chinese restaurants. In addition, there are opportunities for new menu items, such as ganbian tudousi (spicy shredded potatoes), now ubiquitous yet virtually unknown 5 years ago.

HRI continues to be the most direct channel for introducing products to consumers. Although retail sales are growing as well it is a small and difficult market as Chinese kitchens are not adapted to cooking French fries.

The distribution channels for frozen potatoes (chart)



Product Acceptance and Market Development

French Fries and dehy potatoes, to a lesser extent, find a ready market in the expanding Western style food service outlets, from French fries and mashed potatoes in fast food outlets to frozen baked potatoes in Western style steak houses. The greatest market potential, however, lay in the use of potato products in traditional Chinese cooking.

A three-stage approach to market development includes insuring that there is a distribution channel, developing menus incorporating the new products, and commercializing the new product through consumer education. Once there is a distribution channel, critical is educating the hotel, restaurant and institutional food service providers about new products and new uses of existing products, and providing marketing support to promote the new products or new uses in their venues. Once products have been accepted, consumer education on use in the home can pull demand into the home.

The best marketing opportunities are best determined by effective market research, but possible product introductions include substituting individually quick frozen (IQF) potato shreds into traditional "tudousi," incorporating potato starch or dehydrated potatoes into institutional food services facilities to improve flavor and nutrition, and reduce costs. As consumers have less time for cooking, opportunities exist to develop other ready-to-eat potato based products for the newly affluent.

Developing markets for potatoes in traditional Chinese cooking will require training chefs and food service establishments on how to develop new products or how to incorporate new ingredients into traditional menu items. In addition to effective training for the new users to insure quality menu items, consumers must be rewarded for trying the new food product (through product sales and introductory offers, and of course, better flavor). Effective marketing at the consumer level requires the key elements outlined in previous sections.

Intellectual Property Rights: Protecting your Brand

While at the HRI sector, intellectual property rights is not currently a major issue for imported and processed potato products, products at the retail sector are. Products marketed at the retail level require the full use of available trademark and patent protections, including trademark, logo, and Internet domain registration. Registrations should be completed with the Chinese Trademark Office in Beijing.

Marketing Contacts

For marketing assistance for U.S. potato products contact:

U.S. Potato Board's Mr. Daniel Chan PR Consultants Ltd. Room 436, Shanghai Center 1376 Nanjing Xi Lu, Shanghai 200040 Tel: (86-21)62798668 Fax: (86-21)62798669

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Or, for more information about marketing and new developments related to potatoes in China, contact the following USDA Agricultural Trade Offices:

| USDA ATO Beijing | USDA ATO Guangzhou | USDA ATO Shanghai |
|----------------------------|------------------------------|-----------------------------|
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| Tel: 86-10-8529-6418 | Tel: 86-20-8667-7553 | Tel: 86-21-6279-8622 |
| Fax: 86-10-8529-6692 | Fax: 86-20-8666-0703 | Fax: 86-21-6279-8336 |
| Email: ATOBeijing@usda.gov | Email: ATOGuangzhou@usda.gov | Email: ATOShanghai@usda.gov |

Statistics Tables

Beginning Stocks of fresh potatoes in PS&D Table is zero, not consistent with previous year because Post uses September replacing January as the beginning of the Marketing Year.

Table 1. Fresh Potatoes PS&D Table

| Country | China, Peoples Republic of | | | | | | | |
|------------------------|----------------------------|---------------------------------|----------------|-------------|----------|------------|--|--|
| Commodity | Fresh P | resh Potatoes | | | | | | |
| | 2004 | 2004 Revised 2005 Estimate 2006 | | | | | | |
| | USDA | Post | USDA | Post | USDA | Post | | |
| | Official | Estimate[Ne | Official [Old] | Estimate[Ne | Official | Estimate[N | | |
| | [Old] | w] | | w] | [Old] | ew] | | |
| Market Year Begin | | 09/2004 | | 09/2005 | | 09/2006 | | |
| Area Planted | 0 | 4596700 | 0 | 4880900 | 0 | 4900000 | | |
| Area Harvested | 0 | 4596700 | 0 | 4880900 | 0 | 4900000 | | |
| Beginning Stocks | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Production, Commercial | 0 | 72220 | 0 | 70865 | 0 | 68000 | | |
| Imports | 0 | 0 | 0 | 0 | 0 | 0 | | |
| TOTAL SUPPLY | 0 | 72220 | 0 | 70865 | 0 | 68000 | | |
| Exports, Fresh | 0 | 206 | 0 | 329 | 0 | 400 | | |
| Processing | 0 | 18000 | 0 | 17800 | 0 | 17000 | | |
| Domestic Fresh Market | 0 | 46792 | 0 | 45650 | 0 | 43800 | | |
| Feed Waste | 0 | 7222 | 0 | 7086 | 0 | 6800 | | |
| TOTAL Dom. | 0 | | | | | | | |
| Consumption | | 72014 | 0 | 70536 | 0 | 67600 | | |
| Ending Stocks | 0 | 0 | 0 | 0 | 0 | 0 | | |
| TOTAL DISTRIBUTION | 0 | 72220 | 0 | 70865 | 0 | 68000 | | |

Table 2. Frozen Potato Products PS&D Table

| Country | China, F | China, Peoples Republic of | | | | | |
|----------------------|----------|----------------------------|----------------------|------------|----------|--------------|--|
| Commodity | Potato F | Products | (MT)(MT, Net Weight) | | | | |
| | 2004 | Revised | 2005 | Estimate | 2006 | Forecast | |
| | USDA | Post | USDA | Post | USDA | Post | |
| | Official | Estimate[N | Official [Old] | Estimate[N | Official | Estimate[New | |
| | [Old] | ew] | | ew] | [Old] |] | |
| Market Year Begin | | 09/2004 | | 09/2005 | | 09/2006 | |
| Deliv. To Processors | 105000 | 90000 | 150000 | 105000 | 0 | 120000 | |
| Beginning Stocks | 0 | 0 | 0 | 0 | 0 | 0 | |
| Production | 35000 | 30000 | 50000 | 35000 | 0 | 45000 | |
| Imports | 70600 | 61782 | 84500 | 54782 | 0 | 54000 | |
| TOTAL SUPPLY | 105600 | 91782 | 134500 | 89782 | 0 | 99000 | |

| Exports | 8980 | 8866 | 12500 | 11552 | 0 | 13000 |
|----------------------|--------|-------|--------|-------|---|-------|
| Domestic Consumption | 96620 | 82916 | 122000 | 78230 | 0 | 86000 |
| Ending Stocks | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL DISTRIBUTION | 105600 | 91782 | 134500 | 89782 | 0 | 99000 |

Table 3. Frozen Potato Products Imports (Volume)

| (Metric Tons) H.S. 200410 | | | | | |
|---------------------------|--------|--------|--------|--------|--------|
| | | | | | |
| World | 15,172 | 11,036 | 10,416 | 14,637 | 19,727 |
| United States | 9,329 | 5,257 | 7,099 | 9,177 | 13,528 |
| Canada | 4,463 | 3,714 | 2,775 | 4,533 | 5,094 |
| New Zealand | 423 | 633 | 153 | 448 | 661 |
| Belgium | 798 | 1,060 | 248 | 301 | 285 |
| Egypt | 67 | 108 | 0 | 129 | 96 |
| Japan | 72 | 264 | 120 | 48 | 40 |
| Australia | O | 0 | 0 | 1 | 22 |
| France | 0 | 0 | 0 | 0 | 1 |
| Germany | O | 0 | 0 | 0 | 0 |
| United Kingdom | O | 0 | 0 | 0 | 0 |
| Others | 21 | 0 | 22 | 0 | 0 |