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## China, Peoples Republic of

Tomatoes and Products
Annual Report
2008

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## Report Highlights:

In marketing year 2008/09, China's total tomato production is forecast at 37.5 million MT, a three-percent increase over the previous year and represents a recovery from MY 2007/08, when an estimated 0.3 million MT of Inner Mongolia's processing tomato plants were lost as a result of a blight outbreak, almost half of the expected harvest. Production of processing tomato is expected to reach 5.2 million MT in MY 2008/09, an increase of 15 percent over MY 2007/08. China's exports of tomato paste continue to grow and account for about 90 percent of China's total tomato and tomato product exports. MY 2008/09 exports of tomato paste are forecast at $700,000 \mathrm{MT}$, an increase of 14 percent over the previous year.

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## Executive Summary

China is the largest producer of tomatoes and the largest exporter of processed tomato paste. China's marketing year 2008/09 (MY July-J une) total tomato production is forecast at 37.5 million metric tons (MT), a three- percent increase over the previous year and represents a recovery from MY 2007/08, when an estimated 0.3 million MT of Inner Mongolia's processing tomato plants were lost as a result of a blight outbreak, almost half of the expected harvest. Production of processing tomato is expected to reach 5.2 million MT in MY 2008/09, an increase of 15 percent over MY 2007/08.
China's exports of tomato paste continue to grow and account for about 90 percent of China's total tomato and tomato product exports. MY 2008/09 exports of tomato paste (HS 2009010) are forecast at $700,000 \mathrm{MT}$, an increase of 14 percent over MY 2007/08.

## Production

Blight in Inner Mongolia Resulted in Lower Production
China's marketing year 2008/09 (MY July-June) total tomato production is forecast at 37.5 million metric tons (MT), a three-percent increase over the previous year and represents a recovery from MY 2007/08, when Inner Mongolia suffered damage to its processing tomato crop from blight as a result of heavy rains followed by extreme temperatures nearing the harvest season (see photo below depicting the blight). An estimated 0.3 million MT of tomato plants were lost as a result of the blight, almost half of the expected harvest. Total MY 2007/08 production is also revised down two percent to 36.5 million MT as a result of the blight. However, the production of processing tomato is expected to reach 5.2 million MT in MY 2008/09, an increase of 15 percent over the revised MY 2007/08 figure. The increase is mostly attributed to Inner Mongolia's recovery. To prevent against future pest and disease outbreaks, growers in Inner Mongolia are beginning to implement crop rotation and better planting techniques like decreased planting density and more widespread use of greenhouses, and precision farming techniques such as drip irrigation and plastic sheets.

Fresh tomatoes are produced in most provinces, but the main production areas are located in
 Shandong, Hebei, Xinjiang, Henan, and Jiangsu Provinces. Processing tomatoes are confined to China's Northern provinces, mainly in Xinjiang, Inner Mongolia, and Gansu. These three provinces represent 90 percent of China's total processing tomato production.

China's Processing Capacity Limited only by Availability Availability of tomatoes for processing limits China's tomato paste production. According to industry sources, there are 67 tomato paste processors in China; 40 located in Xinjiang, 19 located in Inner Mongolia, and the other 8 located in Gansu Province. Total annual producing capacity amounts to approximately one million MT of paste and requires six to seven million MT of fresh tomatoes. However, China's MY 2008/09 production for tomato paste is well below capacity with 4.9 million MT forecast to be delivered to processors.

Inner Mongolia's processing tomato acreage has expanded continuously since 2004 as producers from Xinjiang Province move processing factories into Inner Mongolia's Hetao plain because of its proximity to Tianjin's port, China's largest processed tomato port of export. MY 2008/09 processing tomato acreage in Inner Mongolia is forecast at 24,667 hectares, 4,667 hectares above MY 2007/08. Ba Yan Nao Er city in the Hetao plain is now China's second largest processing region, with 20,000 hectares of planted acreage in MY 2007/08, and Wu Yuan County of Ba Yan Nao Er city is the biggest processing tomato planting county in China, with 9,000 hectares in MY 2007/08.

Short Harvest Season Leads to Increased Costs
Tomatoes for processing are planted in April and harvested in July each year. Tomato paste is produced from mid July to mid September. The short planting season places additional financial pressure on farmers to market their crops and this added cost is eventually absorbed by consumers in the form of higher retail prices. The required increase in temporary labor needed to manage the short harvest period and short shelf life of the fruit creates additional labor costs for farmers. Additionally, farmers have an incentive to deliver their product to processing companies as quickly as possible, before the tomatoes spoil in the summer heat. According to industry sources, it takes five to seven days for growers to transport their product to buyers, whether it be a wholesaler, broker, or processing company. Post reporting travel revealed that most growers are forced to queue for long periods of time for processors' quality control checks, occasionally resulting in spoiled product and a loss for the grower.

## Increased use of Greenhouses

The use of greenhouses or plastic sheds for growing tomato seedlings from April to May is a common practice throughout China. A traditional greenhouse is about 0.5 Mu ( 0.03 hectare) and can hold 2,200 plates of 281,600 individual tomato seedlings (see photo at left). After

one month of controlled growing conditions the seedlings can be transplanted to outdoor fields. Just 16 greenhouse grown plates of seedlings can fill one mu ( 0.06 hectares) of outdoor farmland. Greenhouses are also a stable profit yielding investment for farmers. The earnings for one month of tomato seedling production average U.S. \$289 or 2,000 RMB, and the greenhouses can also be used to produce other vegetables peppers, eggplant, and cucumbers - for the remaining 11 months of the year. Even with the promise of financial returns, the majority of China's tomato farmers cannot afford to both own a greenhouse or and purchase seedlings to produce tomatoes independently. These growers typically purchase greenhouse- grown seedlings from better- off neighbors. In both Xinjiang and Inner Mongolia the local government and the city's Academy of Agricultural Sciences, the research arm of the Ministry of Agriculture, has established demonstration plots and greenhouses to provide farmers with technical support and extension services. Local government agencies on occasion will rent local greenhouses and use them as hands- on classrooms to educate local growers on proper nurturing techniques for healthy seedlings for processing. Improved farm management
techniques, fertilizer application, and growing standards are among the main topics taught through these extension service programs.

## Trade

China's exports of tomato paste continue to grow (see chart below), and account for about 90 percent of China's total tomato and tomato product exports. MY 2008/09 exports of tomato paste (HS 2009010) are forecast at 700,000 MT, an increase of 14 percent over the revised MY 2007/08 estimate of 610,000 MT. MY 2007/08 exports are revised down, due to short processing tomato supplies following the blight outbreak in Inner Mongolia in 2007. According to China Customs data, from January to April 2008, China has exported 318,781 MT of tomato paste, valued at U.S. $\$ 216$ million, a 30 -percent increase over the same four months in 2007.


Source: China Customs
Italy, Russia, Japan - Top Three Buyers
Italy, Russia, and Japan have historically been the top three buyers of China's tomato paste. From July 2007 - April 2008 Russia has already imported 129,053 MT, valued at U.S. \$80 million. This is a 47-percent increase in volume and 12 -percent increase in value over the entire MY 2006/07 amount. Over the same time period, Italy has imported 94,096 MT, valued at U.S. $\$ 58.3$ million, an increase of one percent by volume and 18 percent by value. In 2006, Italy imposed a regulatory restriction on imports of China's tomato paste (see CH $\underline{6024}$ for more information on Italy's policy), but excess rainfall prior to the 2007 harvest and an outbreak of Peronospera resulted in a sharp increase in Italy's paste imports in order to meet domestic demand. The table below lists China's top buyers of tomato paste in 2007.

Major I mporters of China's Tomato Paste
(Volume in MT)

|  | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | 2006/07 <br> Change |
| :--- | ---: | ---: | ---: | ---: |
| Russia | 112,322 | 126,997 | 142,208 | $12 \%$ |
| Italy | 93,902 | 62,274 | 120,392 | $93 \%$ |
| Japan | 44,492 | 49,994 | 57,184 | $14 \%$ |
| Ghana | 49,271 | 35,666 | 40,499 | $14 \%$ |
| United Arab Emirates | 35,031 | 36,017 | 36,620 | $2 \%$ |
| Nigeria | 332 | 7,705 | 28,558 | $271 \%$ |
| Saudi Arabia | 21,306 | 25,779 | 24,918 | $-3 \%$ |


| United States | 1,633 | 9,876 | 9,022 | $-9 \%$ |
| :--- | ---: | ---: | ---: | ---: |

Source: Ministry of Agriculture
Xinjiang Produces Majority of China's Paste Exports
Although Inner Mongolia is poised to catch up to production in Xinjiang Province, Xinjiang remains China's largest supplier of tomato paste for export, providing 528,000 MT in MY 2007/08, a 40-percent increase over the previous year, and representing 62 percent of China's total tomato paste exports in MY 2007/08.

China completed its WTO accession tariff reductions for tomatoes and tomato products in 2005. There are no changes to the tomato and tomato products' tariff schedule.

| Tomato and Tomato Products I mport Tariff and VAT Rates for 2008 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| H.S. Code | Description | Tariff | VAT | Export <br> Drawback |
| 070200 | Tomatoes, fresh or chilled | 13 | 13 | 5 |
| 20021010 | Tomatoes, prepared or preserved, whole <br> or in pieces in airtight containers | 19 | 17 | 13 |
| 20021090 | Tomatoes, prepared or preserved, whole <br> or in pieces, other | 25 | 17 | 13 |
| 20029010 | Tomatoes, prepared or preserved, paste, <br> in airtight containers | 20 | 17 | 13 |
| 20029090 | Tomatoes, Prepared or Preserved, Other | 18 | 17 | 13 |
| 21032000 | Tomato ketchup and other tomato sauces | 15 | 17 | 13 |

Source: China Customs
Tianjin Established itself as Industry Base for Deep Processing
Tianjin port, about an hour southwest of Beijing, is a significant export port for tomato paste and other commodities in North China. Over the last few years, this area has been developing as an industry base for deep processing and repackaging of tomatoes, and has successfully attracted some larger paste producers to further process paste and fresh tomatoes into different tomato end-products like peeled whole tomatoes, tomato chunks, and tomato powder. Between 2004 and 2007, the area's deep processing ability increased from 8,000 MT to 200,000 MT per year, and established itself as the largest region for small package tomato paste in Asia.

Price Increase the Result of Decreased Supply and Increased Overall Food Inflation World tomato production is mainly concentrated in the Mediterranean Sea area, North America, China, Australia, Japan, South Africa, Argentina, and Chile. In recent years, China has become an important tomato processing and exporting country. Rigorous quality standards and favorable labor and capital input prices allow China to compete in the world market. In 2006, the world's top tomato paste producers, the United States, Italy, and Spain, suffered poor harvests due to adverse weather conditions. The decrease in world supply in major producing countries led to tight world supplies and higher prices.


Source: China Customs
China's Imports
China is also a tomato paste importer, about 100-200 MT per year with just over 80 percent being imported from the United States. Although small in quantity, there are opportunities for U.S. exporters to expand niche markets as China's domestic tomato and tomato products consumption is expected to double by 2010.

## Policy

Although maintaining its rank as the world's largest exporter of tomato paste is important to China, most agricultural support goes to grain and pork production rather than cash crops (fruits and vegetables). However, in January 2007, the Ministry of Agriculture (MOA) released the $11^{\text {th }}$ Five-Year Plan for the Agricultural Products Processing Industry, which includes further developing China's tomato processing industry as a priority. To help accomplish this goal the central government removed all agricultural taxes for growers and highlighted Xinjiang, Inner Mongolia, Gansu, and Ningxia Provinces as the best suited growing areas for tomato paste production. Xinjiang, Inner Mongolia and Gansu Provinces combined represent 90 percent of China's total processing tomato production.

## Marketing and Consumption

Room for Growth in Per Capita Consumption of Processed Tomatoes
China's annual per capita consumption of processed tomato products is extremely low-less than 0.5 lbs ( 0.2 kilograms), compared with 7 lbs ( 3 kilograms) in the United States, and 51 lbs ( 23 kilograms) on average in the European Union countries. Processed tomato products in China are mainly sold to restaurants and hotels. Annual per capita consumption of fresh tomatoes, on the other hand, is more than 46 lbs ( 21 kilograms) as fresh tomatoes are a common ingredient in the Chinese diet. Spring and summer are the peak consumption seasons for fresh tomatoes, when open field tomatoes are plentiful and reasonably priced throughout China. Despite this consumption structure, China's processed tomato products have more potential for growth in consumption. As the world's largest emerging middle class continues to pay greater attention to healthy lifestyles and incomes continue to rise, China's consumption of processed tomatoes is expected to grow. Studies suggesting that processed tomatoes provide more lycopene than fresh tomatoes are being made available to consumers. In addition, more research is being conducted in China to determine the benefits
of lycopene in the fields of medical health care, food additives, cosmetics, and food pigmentation.


Source: Ministry of Agriculture
Food Safety an Increasing Consumer Concern
Food safety is also another important concern for producers. Quality controls begin from the planting of the fruit and continue through production of the end-product. Food safety issues are of increasing importance to both producers and consumers. Consumers are demanding quality products that are safe and healthy, with demand for organics on the rise. To the producer, these demands often translate into increased production costs for crop rotation, soil maintenance, and improved planting techniques. However, wholesale distribution centers have been under increasing pressure from the Central Government to raise the bar on food safety and test requirements are now mandatory in most major marketing and distribution centers.

Opportunities for U.S. Products in China
The United States cannot compete with China's tomato products in price, but rather in quality and reputation. To increase market share of tomatoes and products in China, U.S. exporters and traders should focus on educating Chinese consumers on the health functions of tomato and tomato products, conduct seminars on how to include tomatoes in daily menus, and improve presentation and packaging designs to appeal to Chinese consumer taste. The largest consuming entity of tomato products in China is the foreign fast food restaurant industry, followed by star hotels and family kitchens. Due to their superior quality and good reputation, U.S. tomato products are most competitive in major and mid-sized coastal cities (Beijing, Dalian, Qingdao, Shenzhen, Guangzhou and Shanghai), high-end consumer markets, western supermarkets, and value-added food processing sectors.

## Statistics Tables

Table 1 Fresh Tomatoes PS\&D Table

| PSD Table |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | China, Peoples Republic of |  |  |  |  |  |  |  |  |
| Commodity | Fresh Tomatoes |  |  |  |  |  | (HA) (MT) |  |  |
|  | 2006 Revised |  |  | 2007 Estimate |  |  | 2008 Forecast |  |  |
|  | USDA <br> Official | Post Estimate | $\begin{gathered} \text { Post } \\ \text { Estimate } \\ \text { New } \end{gathered}$ | USDA <br> Official | Post Estimate | Post Estimate New | USDA Official | $\begin{aligned} & \text { Post } \\ & \text { Estimat } \\ & e \\ & \hline \end{aligned}$ | Post Estimate New |
| Market Year Begin |  | 07/2006 | 07/2006 |  | 07/2007 | 07/2007 |  | 07/2008 | 07/2008 |
| Plant For Fresh Consump | 0 | 766000 | 767000 | 0 | 768000 | 768600 | 0 | 0 | 769000 |
| $\begin{aligned} & \hline \text { Plant For } \\ & \text { Processing } \\ & \hline \end{aligned}$ | 0 | 73000 | 73000 | 0 | 77000 | 77330 | 0 | 0 | 82000 |
| Total Area Planted | 0 | 839000 | 840000 | 0 | 845000 | 845930 | 0 | 0 | 851000 |
| Harv. For Fresh Cons. | 0 | 766000 | 767000 | 0 | 768000 | 768600 | 0 | 0 | 769000 |
| Harv. For Processing | 0 | 83000 | 73000 | 0 | 77000 | 67330 | 0 | 0 | 82000 |
| Total Area Harvested | 0 | 849000 | 840000 | 0 | 845000 | 835930 | 0 | 0 | 851000 |
| Fresh Sale Production | 0 | 32550000 | 31700000 | 0 | 32000000 | 32020000 | 0 | 0 | 32298000 |
| Processing Production | 0 | 3900000 | 4800000 | 0 | 5200000 | 4540000 | 0 | 0 | 5221000 |
| Total Production | 0 | 36450000 | 36500000 | 0 | 37200000 | 36560000 | 0 | 0 | 37519000 |
| Total Supply | 0 | 36450000 | 36500000 | 0 | 37200000 | 36560000 | 0 | 0 | 37519000 |

Table 2 Tomato paste PSD table

| PSD Table |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | China, Peoples Republic of |  |  |  |  |  |  |  |  |
| Commodity | Tomato Paste,28-30\% TSS Basis |  |  |  |  |  | (MT)(MT, Net Weight) |  |  |
|  | 2006 Revised |  |  | 2007 Estimate |  |  | 2008 Forecast |  |  |
|  | USDA Official | Post <br> Estimate | Post Estimate New | USDA <br> Official | Post Estimate | $\begin{aligned} & \text { Post } \\ & \text { Estimate } \\ & \text { New } \end{aligned}$ | USDA <br> Official | Post <br> Estimate | Post Estimate New |
| Market Year Begin |  | 07/2006 | 07/2006 |  | 07/2007 | 07/2007 |  | 07/2008 | 07/2008 |
| Deliv. To Processors | 3900000 | 3900000 | 4300000 | 4600000 | 4600000 | 4086000 | 0 | 0 | 4981500 |
| Beginning Stocks | 21250 | 21250 | 63163 | 31313 | 31313 | 31313 | 0 | 0 | 39493 |
| Production | 600000 | 600000 | 715000 | 750000 | 750000 | 681000 | 0 | 0 | 749100 |
| Imports | 800 | 800 | 150 | 200 | 200 | 180 | 0 | 0 | 100 |
| Total Supply | 622050 | 622050 | 778313 | 781513 | 781513 | 712493 | 0 | 0 | 788693 |
| Exports | 525000 | 525000 | 675000 | 650000 | 650000 | 610000 | 0 | 0 | 700000 |
| Domestic Consumption | 85000 | 85000 | 72000 | 80000 | 80000 | 63000 | 0 | 0 | 85000 |
| Ending Stocks | 12050 | 12050 | 31313 | 51513 | 51513 | 39493 | 0 | 0 | 3693 |
| Total Distribution | 622050 | 622050 | 778313 | 781513 | 781513 | 712493 | 0 | 0 | 788693 |

