



## China's Corn Processing Industry Rebounding

China's corn processing industry has been growing amazingly in the last few years, except in 2009 when the global economic crisis seriously impacted this industry. China's most corn products, such as VC, citric acid and xylitol, are exported-oriented and the crisis have depressed overseas demand and the products' prices as well. At the same time, corn processors had to face the pressure from the rising corn price. Therefore, many corn processors have suffered great profit loss in 2009, which have thus driven many small-scale companies to withdraw from corn processing industry. However, some leading companies with strong financial ability survived or became even stronger.

China's corn processing industry is expected to rebound rapidly in 2010, as global economy is recovering gradually. But as China promises to cut 40%~45% GDP unit carbon emission by 2020 compared to that in 2005, development of environmentally friendly products like PLA and fuel ethanol will be intensely encouraged by the government and those with high pollution and overcapacity such as VC, MSG, citric acid and sorbitol will be restrained. The new kinds of corn processing products will bring many new business opportunities in the future.

As predicted that the corn industrial consumption will amount to at least 45 million tonnes in 2010, accounting for 40% of the total corn consumption, corn deep processing products have a great market potential in China in the following aspects:

- ▲ Cornstarch and its derivatives occupy the largest proportion of corn products, up to 80%. In 2009, the cornstarch output in China was 13 million tonnes, while the demand was 19 million tonnes. In the next few years, the demand will increase with AGR of 20%. And 80% of the demand for cornstarch is from food industry. The fast growing food industry, with AGR of 20%, will boost the development of corn processing sector.
- ▲ The output of starch sugars including glucose, maltose syrup, HFCS and sorbitol was 7.2 million tonnes in 2009, increasing rapidly with AGR of about 35% from 2002. And it will be increasing with AGR of about 25% in next few years. Meanwhile, China has become the largest sorbitol producer in the world, and China's sorbitol production capacity exceeded 1 million tonnes in 2009. With the ban on the use of diglycol in toothpaste, demand for sorbitol used in toothpaste will swell since 2007.
- ▲ Biodegradable corn products including PHA, PHBV and polylactic acid (PLA) are also a very promising field for corn processing, with the encouragement by government policies on environmental friendliness. The demand for biodegradable materials in China was up to 6.5 million tonnes in 2006, and 19.5 million tonnes of starch was needed. The demand for biodegradable material in China will increase to 13 million tonnes in 2010, valuing RMB150 billion, with AGR of 20%.

What's to be noted is the field of fuel alcohol. Though the demand and output of fuel alcohol with corn had been growing very rapidly in the past years, with the total output of fuel alcohol from corn soaring from 70 kilotonnes in 2003 to 1,320 kilotonnes in 2006, cautions should be taken towards investment in fuel alcohol with corn in China. That's because the production of fuel alcohol with grain including corn may threaten the food safety in China. And the price rise of grain in 2007 in China proved that fuel alcohol has become a contributing factor. Chinese government becomes increasingly tight in approving such projects (see the renewable energy source longterm plan). The AGR of fuel alcohol output, therefore, is expected to drop to 6% from 2007 to 2010.

Foreign companies attracted by the fast-growing demand, low labour cost and big profit of corn processing industry in China are increasingly concerned with the price fluctuation. The foreign companies can invest in China's corn processing industry directly or by cooperation with Chinese companies, to occupy the expanding Chinese market, and even to supply their customers in Europe, Southeast Asia, Japan and South Korea.

### Corn Products China News

brings you the latest information on new price fluctuation, new market trends and intelligence, new legislations and policies, new technologies, new area dynamics and new corn supply that are shaping the market.

## **Main contents**

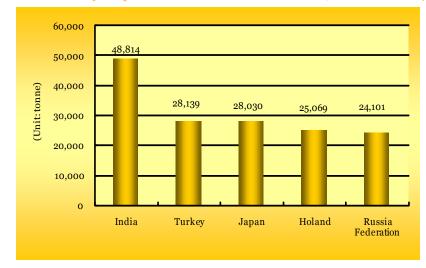
### Supply & Demand

Cover the latest information of supply and demand for corn and important corn products, like corn starch, glucose, citric acid, alcohol, etc. Analyse the factors influencing supply and demand, including import and export, capacity expansion, actual output, and domestic demand. Meanwhile, anti-dumping issues over corn products are also involved in this section.

- ▲ Figure out the monthly supply and demand of corn or certain corn product in China or in some province(s) of China, shown in FIGURES. Like FIGURE 1.
- ▲ Find out the factors influencing supply and demand,

- such as raw materials supply, demand from downstream industries, impact of governmental policies, and so on.
- ▲ Analyse how the factors influence the supply and demand. And figure out the supply and demand trends in
- the near future in China.
- ▲ If necessary, the supply and demand of competing products will be analysed.
- ▲ Analyse the impacts caused by anti-dumping measures on corn products and figure out solutions to cope with it.

FIGURE 1: Major export destinations of Chinese citric acid, Jan. ~ Nov. 2009



Source: CCM International

### Price Update

Provide the latest FOB price of corn and important corn products every month in China or in certain province or key company. Figure out the factors behind the price fluctuations, including the dynamics of supply and demand, raw materials—supply and price, and policies, etc.

▲ Figures showing price trends of corn or corn products in recent months, when it falls? When it rises? What is the degree of price drop or rise? CCM will update the price every month and add it into figures and tables. Like FIGURE

TABLE 1:Ex-factory prices of corn products in Jan. 2010

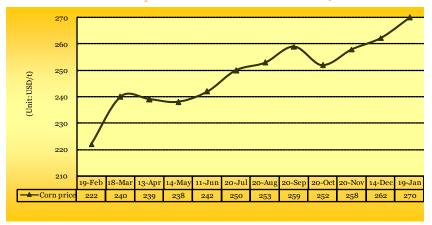
Products	Price in January 2010		Price in December 2009	
	(USD/t)	(RMB/t)	(USD/t)	(RMB/t)
Corn starch (North China)	374	2,550	359	2,450
Corn starch (South China)	409	2,790	394	2,690
Ethanol (Industrial grade)	615	4,200	586	4,000
Ethanol (Food grade)	842	5,750	828	5,650
80% Maltose syrup	396	2,700	374	2,550
70% Sorbitol	549	3,750	535	3,650
Monohydrate citric acid	791	5,400	755	5,150
Oxidized starch(Food grade)	821	5,600	821	5,600
68% Xylitol (Liquid)	842	5,750	850	5,800
HFCS (Fructose: 42%)	396	2,700	381	2,600
HFCS (Fructose: 55%)	498	3,400	498	3,400
Crystal Isomaltitol	3,326	22,700	3,179	21,700
Maltodextrin	527	3,600	462	3,150
75% Maltitol (Liquid )	784	5,350	777	5,300
Anhydrous glucose (Food grade)	718	4,900	703	4,800
Glucose Monohydrate	549	3,750	491	3,350

Source: CCM International

#### 2, and TABLE 1.

- ▲ Analysis of the factors influencing price fluctuation and how the factors work.
- ▲ Exclusive prediction of the price trend in the near future in China or in certain province of China.
- ▲ If necessary, the price fluctuation of competing products will be provided.

FIGURE 2: FOB corn price in Dalian Port from Feb. 2009 ~ Jan. 2010



Source: CCM International

### ♦ Market & Company Dynamic

Cover the updated information on corn processing industry. Analyse what the impact of a new investment is, how and why the demand and consumption of deep processing corn products such as HFCS, sodium glutamate and citric acid change, and forecast the trends in the future.

Cover market spotlights and large projects, which have a long-time impact. Analyse how policies, events and other factors affect the market trend.

Cover the openings of new production lines, company expansions, merger, cooperation, closures and stories behind such movements, and indepth interviews with large Chinese corn products producers. Analyse their strategies for the future and the impact of these commercial activities.

Provide breaking news on end users of corn

products including food industry, chemical industry, pharmaceutical industry, plastics and textile industry, construction industry, papermaking industry and so on. Analyse how they influence the demand and development of corresponding corn processing sector.

### How to organise:

- ▲ A latest event occurred in markets or companies.
- ▲ Driven forces behind the event including policies, corn supply, demand from various uses and so on, and how they affect the event.
- ▲ Potential and current influence of the event.
- ▲ Companies responses, actions and strategies or associations opinions.
- Market trend for the future.

### Competitiveness

Analyse the competition between corn products and other non-corn products, for instance, fructose and sucrose; the competition between the same corn products from different sources, for instance, fuel alcohols from corn and from cassava; the competition between new corn products and the old ones.

### How to organise:

▲ Comparisons between several products: cost, price, market share, advantages and disadvantages

and so on.

- ▲ Why choose these products? --- their similarity, uniqueness and prevalence.
- ▲ Current situation of them: which is dominant, which is promising and which is declining.
- ▲ Viewpoints of companies or associations or experts.
- ▲ Development trend of them in the future.

### Corn Supply

Cover the supply of corn and analyse the influencing factors including natural disasters, events, import & export, seed, corn harvest, corn stock and corn's relationship with wheat and soybean, and how they influence the development of corn processing sector.

#### How to organise:

▲ A new event or the changes of some influencing

▲ Influence on corn supply brought by the event or changing factors.

factors including policies, natural disasters, corn

harvest and so on.

- ▲ How they affect the production of corn products? --- opinions from companies and associations.
- ▲ Trend of corn supply in the near future.

### ♦ New Technology & New Products & R&D

Discover new promising corn products, and new applications of traditional corn products, and their latest technological progress, and research development. Analyse what the sales and production are and why some certain corn products have a potential market.

### How to organise:

▲ Introduction of a new technology or a new corn

product or a new project in research.

- ▲ Why it is promising?---Reasons of companies or associations or research institutes.
- ▲ Current situation of product promotions in the market or its production in companies or its research process.
- ▲ Companies strategies to popularise it for the future.

# What is the scope?

- △ Corn
- Cornstarch
- ▲ Starch sugar including glucose, glucose syrup, maltose syrup, maltodextrin, HFCS, etc.
- ▲ Sugar alcohols including sorbitol, isomaltitol, maltitol, and so on
- Modified cornstarch
- ▲ Fermented products including enzyme preparations, sodium glutamate, xanthan gum, and so on
- ▲ Bioproducts including fuel alcohol (or ethanol), lysine, threonine and tryptophan, amino acids, vitamins, food gums and organic acids, e.g. lactic acid, citric acid, itaconic acid
- ▲ Feed products including corn gluten meal, steepwater, corn gluten feed and so on
- ▲ Others including polylactic acid, inositol, corn oil etc.
- ▲ Uses of corn and corn-based products include food and beverage, feed, pharmaceutical, plastics and textile, construction, chemical, paper-making, and etc.

# Why to subscribe?

- ▲ To trace the price trend of corn and corn products, for calculating the cost impact
- ▲ To grasp the latest information of supply and demand of various corn products in Chinese market
- ▲ To help make investment decision: where and when?
- ▲ To seize the market development in China and abroad, and take the opportunity to occupy the market
- ▲ To know government policies and legislations, and better understand the direction of corn products development, to analyse the investment risks
- ▲ To discover what Chinese companies are seeking for investment
- ▲ To understand the new status and trend of import and export of corn in China
- ▲ To gain the new intelligence on corn supply and natural disasters in China
- ▲ To keep track of your competitors' actions in China ahead of the competition

## Who needs to subscribe?

- ▲ Corn products producers paying close attention to corn supply, planning to invest in China or looking for Chinese partners
- ▲ Producers of food ingredients, starch sugar, fuel alcohol, cornstarch, corn oil and feedstuff looking to develop Chinese market of corn products
- ▲ End-users in the food, pharmaceutical, paper making and packing industries
- ▲ Equipment suppliers targeting China with high quality production and processing machinery and lines and testing and quality control systems
- ▲ Research institutes who desire to know the market development of corn products
- ▲ Analysts and consultants trying to gain insight into the Chinese fast-growing market for corn products

## **Methodology**

### **▲** Telephone interview

Telephone to production bases, producers, traders, distributors, end-users, associations, governments and so on to gain first-hand information.

Establish long-term cooperative relationships with domestic companies including producers, traders, end-users and so on. CCM would provide them free advertisement or free intelligence, and they offer the latest information on prices, company strategies at the same time.

▲ Face-to-face interview (site visit)

Carry out a face-to-face interview with experts, record the talk and make in-depth analysis & comment. Before the interview, CCM would clearly line up the topics. Introduction to the development of one well-known enterprise is also available. Establish friendly relations through telephone or face-to-face interviews for long-term cooperation.

#### ▲ Database

CCM would buy some data from CIQ, associations and other organizations to create a database about corn products and corn prices, production and consumption, import and export and so on for the past 5 years.

#### ▲ Internet

Register to be a member of some authoritative, professional or well-known websites, to obtain the information available to members only, to discover new applications of corn products, latest company dynamics, current events, new policies and so on.

### ▲ Expert consulting

Establish long-term friendly relationships with experts within the industry via payment or information exchanges, and they would termly contribute stories to CCM.

#### **▲** Exhibition

Attend some exhibitions to obtain updated information on new line openings, new technologies, new equipments launches, new company development and so on.

#### ▲ Investigation

CCM would make investigations into some companies, analyse the trend of production and consumption.

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