

Notes: Key data/information is included in the complete report while hidden in this sample page.

1 Modified starch

China has become the second largest modified starch production base worldwide, following the US. With the booming economy and increasing demand in China, domestic output of modified starch reached ■■■ million tonnes in 2011. Modified starch production is widely distributed in different areas in China, especially in the regions with stable supply of raw materials. Shandong Linqing Deneng, Zhucheng Xingmao and China Sun are the largest modified starch manufacturers in China, with total output of ■■■■ tonnes in 2011, accounting for ■■■% of China's total output.

Manufacturers adopt wet method or dry method in modified starch production in China. Although state-owned modified starch manufacturers still capture the largest market share in China, more and more foreign investments have entered the modified starch industry in recent years. Global financial crisis has hit the downstream industries of modified starch such as papermaking and textile. The most important downstream industries of modified starch were industrial-field industries and food industry, with consumption volume of ■■■ million tonnes and ■■■ million tonnes respectively in 2011.

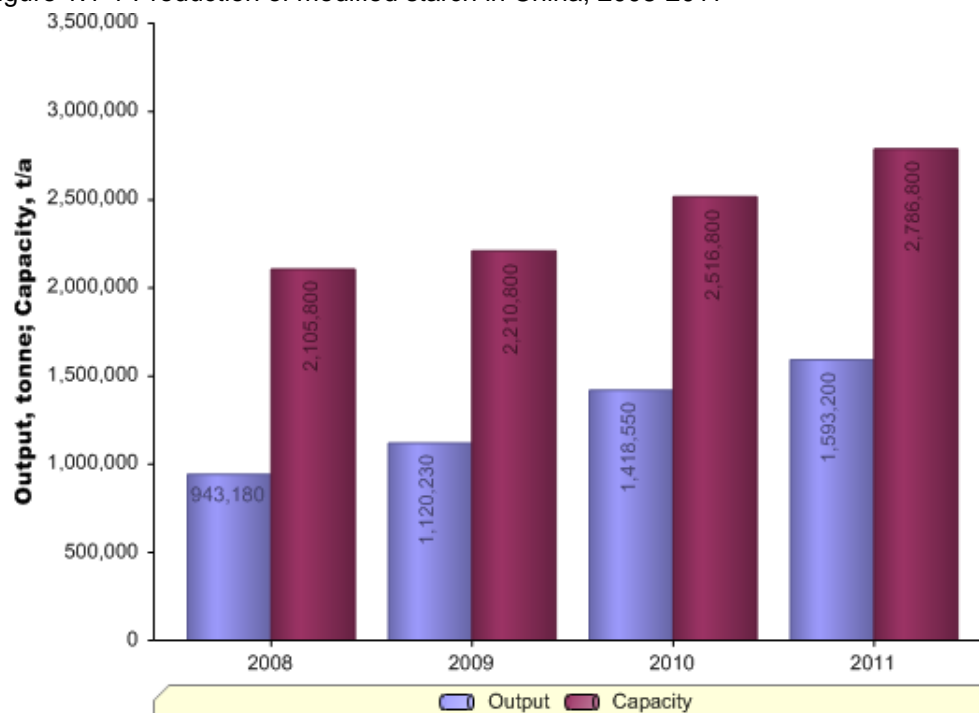
1.1 Production (output, capacity, producers, price, technology, manufacturing cost)

- Production and capacity development

Driven by flourishing downstream industries, China's modified starch industry witnesses great development in recent years. China has become the second largest modified starch production base in the world, following the US. With the booming economy and increasing demand in recent years in China, the output of modified starch has reached ■■■ million tonnes in 2011, with the growth rate of around ■■■%. In near years, the output and capacity of modified starch have increased due to the domestic demand has risen. In addition, the capacity has expanded to ■■■ million t/a in 2011. Corn modified starch captures the largest market share of modified starch industry in China, taking up about ■■■% of the total output of modified starch in 2011, mainly thanks to the abundant raw material.

In China, the manufacturers of modified starch can produce various product of modified starch in general. It is probably divided into three categories, such as industrial grade, food grade, pharmaceutical grade. Currently, most of modified starch is used in food.

Figure 1.1-1 Production of modified starch in China, 2008-2011



Source: CCM

Table 1.1-1 Basic information about main modified starch manufacturers in China

No.	Manufacturer	Abbreviation	Location
1	Shandong Linqing Deneng Biological Technology Co., Ltd.	Shandong Linqing Deneng	Shandong
...
54	Shandong Qingzhou Beilian Starch Co., Ltd.	Qingzhou Beilian	Shandong

Source: CCM

1.3 Consumption (by application area)

Due to the various characteristics, modified starch is widely applied in industrial field industries (papermaking, textile, etc.), pharmaceutical industry and food industry in China. Industrial field industries and food industry are the most important downstream industries of modified starch, taking up ■■■■% of the total consumption volume in 2011. Currently, the application amount of modified starch in pharmaceutical was less.

In 2008-2011, the consumption of industrial field industries and food industry has been increasing rapidly, contributing to the continuous growth of population in China and the rapid development of industry economy. The consumption volume in industrial fields and food industry were ■■■■ million tonnes and ■■■■ million tonnes, with ■■■■% and ■■■■% of CAGR in 2008-2011, respectively. In addition, the total consumption of modified starch has been

continuously rising with a CAGR of [REDACTED] % in 2008-2011.

Table 1.3-1 Consumption structure of modified starch by volume in China, 2008-2011

Year	Industrial-field industries	Food industry	Other industries	Total
2008	666,503	[REDACTED]	[REDACTED]	[REDACTED]
2009	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2010	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2011	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Note: Industrial-field industries include papermaking industry, textile industry, etc

Source: CCM