

### III-3 Major producer's information

#### ✓ Sorbitol

According to CCM's investigation, ■ enterprises produce or ever produced sorbitol in China. By the end of May 2010,

- ■ producers stopped;
- ■ producers are idle;
- ■ producers are active.

At present, there are 2 types of sorbitol in China, 70% syrup sorbitol and crystalline sorbitol.

Because transportation cost of syrup sorbitol is high and it's easily freezing in winter, the production of 50% syrup sorbitol has stopped recently.

About ■ producers use cornstarch, a major raw material of sorbitol production. For others, ■ producers use sorbitol syrup and the other ■ use glucose and tapioca.

#### ✓ Mannitol

Currently, there are ■ active mannitol producers in China, among which ■ adopt chemical synthesis method with glucose, only one producer still adopt the traditional method.

Hebei Huaxu Pharmaceutical Co., Ltd. is the top producer of mannitol in China with capacity of ■ t/a, whose output reaches ■ tonnes in 2009. Jiangsu Lianyungang Zhongda Seaweed Industrial Co., Ltd. (Lianyungang Zhongda) is the only producer adopting traditional method with annual capacity of ■ tonnes in 2009. More and more companies choose synthesis method. The output of mannitol produced by traditional method will be less and less till it is completely replaced by synthetic method with glucose.

Some companies stopped mannitol production for insufficient capital to pass GMP certification, and mannitol production is strictly limits by national requirements. These companies include Qingdao Gather Great Ocean Seaweed Industry Co., Ltd., Lianyungang Huarui Chemical Co., Ltd., Jiuyang Alga Industry Bio-engineering Co., Ltd. and so on.

Only 8 active producers have gained GMP certificate. Lianyungang Zhongda and Shandong Lianmeng are claimed to pass GMP certification in August 2007. Henan Jincheng doesn't pass GMP certification, and it can only supply mannitol to these food consumers or for export.

Table III-3.4 List of China's mannitol producers, 2010

No.	Producer	Status	Raw material	Capacity, 2010 (t/a)	Output, 2009 (t)	Price (USD/t)
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1	Shandong Qingdao Bright Moon Seaweed Industry Co., Ltd.	Active	■	■	■	Food grade: ■ Medicine grade: ■
2	■	■	■	■	■	■
3	■	■	■	■	■	■
4	■	■	■	■	■	■
5	■	■	■	■	■	■
6	■	■	■	■	■	■
7	■	■	■	■	■	■
8	Yantai Xinwang Seaweed Industry Co., Ltd.	■	■	■	■	■

Source: CCM International