

A COMPARISON OF CHINA'S SUGAR CANE TECHNOLOGY WITH AUSTRALIAN INDUSTRY STANDARDS

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CHINA has approximately 183 sugar cane mills in the three main cane growing regions of Guangxi, Guangdong and Yunnan. The crushing rate of these mills ranges from 1000 tonnes per day (45 tcph) to 10 000 tonnes per day (450 tcph). Almost all milling units in China are run by electric drives, factory steam efficiencies are typically 45% on cane and direct white sugar of 100–200 ICU is made.

Chinese sugar production is primarily limited to supply of the domestic market. The Chinese industry is currently undergoing major restructuring due to entry into the World Trade Organisation and privatisation of mills. Although China's demand for sugar is steadily growing, the government has closed many of the smaller mills, while the larger mills are seeking to upgrade equipment and automate processes.

The Australian industry's standard mode of operation is to separate raw sugar production from refining. Chinese mills uniformly include all processing from crushing to direct consumption white sugar through the use of a two-step sulphitation and/or carbonatation of mixed juice and liquor. There is currently a push to reduce or eliminate sulphitation and make higher quality white sugar products through the addition of refinery processes. The experiences being gained in this technology shift have potential relevance to the Australian sugar industry.

The major differences which set China's sugar industry apart from the Australian sugar industry are low labour costs and low capital cost of equipment. This gives rise to more frequent replacement of equipment and therefore more frequent opportunity for upgrading technology.

The poster paper shows a summary of the differences between Chinese and Australian sugar technology and highlights experiences and technologies that could have application in Australia.