

## CASE STUDY

## Improving raw material quality for millers

When China discovered that they were losing a significant amount of harvested crop through poor storage, it was decided that something at a national level had to be done about it; that's what is happening there today

by Roger Gilbert for Milling and Grain

Unlike many developed countries, where quality deterioration of crops can see three to five percent of stored materials become unusable, the figure in China can be as high as 15 percent. Government recognition of the problem has resulted in support for farmers, starting from immediate post-harvesting, to ensure drying is carried out successfully.

One milling industry player has stepped forward to provide the equipment necessary for such a change in handling methods, and that company is Satake.

"In China a lot of rice is damaged in storage due to humidity and this is particularly an issue on farms where farmers do not have the machinery to dry," says Satake Manufacturing (Suzhou) Co Ltd General Manager Nagafuchi Eiichiro.

"Many are still using radiant heat from the sun, which is extremely primitive, to do the job and this leads to a lot of waste."

China's agricultural department is now convinced that farmers should be using machinery to dry their crops. "While we are still concentrating on our flour milling and colour sorting business, we want to diversify, so we are also entering the agricultural industries so-called pre-harvest area in rice and other crop drying."

With equipment now to hand it's just a matter of farmers receiving the governmental subsidy in order for the sales to be made, he added.

### Think Satake ... think sorter

When you think Satake you think colour sorters and as an industry leader, it was very much appreciated when they invited Milling and Grain to visit the company's Suzhou factory to tour its facilities late last year.

General Manager Nagafuchi Eiichiro, Tanak Toshiyuki and their team of specialists, which included our guide for the afternoon, hosted us.

Satake established its manufacturing operation in China in 1997

Colour sorters of all shapes and descriptions are completed on the production line at Satake's factory in Suzhou, China

and started production a year later in 1998. 2017 will mark its first 20 years in the country at its location on Jinfeng Road in the new district of Suzhou City in Jiangsu Province is in excellent condition. Today, it employs 260 people including five Japanese nationals at the factory.

Satake System Manufacturing (Suzhou) Co Lt started out manufacturing rice-milling equipment, which accounted for 70-80 percent of production, to meet early demand for this type of machinery in the country 20 years ago.

However, the introduction of colour sorting in recent years has seen a significant switch to providing the grain and rice milling sectors throughout China and the Asian region, with what has become an essential piece of milling equipment; with sales in 2015 achieving a turnover of 290 million RMB with a profit margin in the region of 20 million RMB.

For a foreign company working in China, turnover is not the only guide to success. The exchange rate has an ever-present impact on profitability and the appreciating Yuan - which has improved from 8Yuan:US\$1 some 10 years ago to 6.25Yuan:US\$1 today - means that it's increasingly more difficult to do business within and from China.

"This is an overall appreciation of the Yuan of between 30-40 percent and that has had an important effect on exports to other Asian countries," says Mr Nagafuchi Eiichiro.

"We export about 50 percent of our production from Suzhou to other Asian countries, namely India, Thailand, Vietnam, etc. We are affected by the RMB appreciation very much."

However, this has not overshadowed the complete success of Satake's strategy of building a production hub in China to meet the demand from its local and international marketing departments.

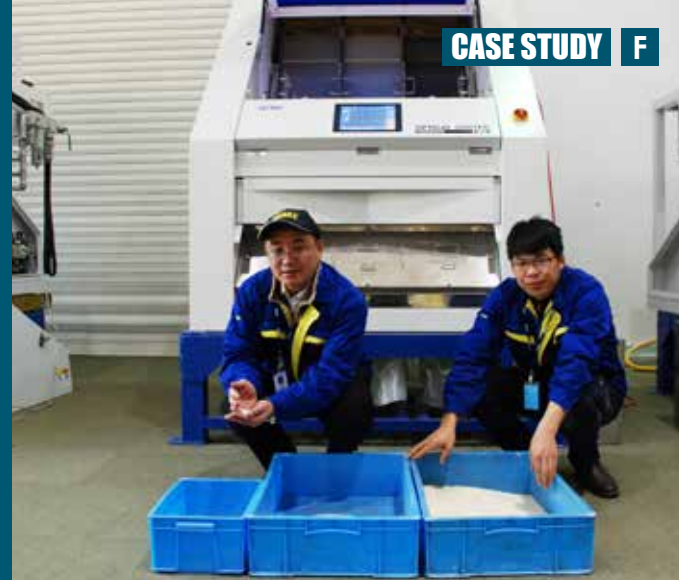
"Our research and development is carried out in Japan and that brings to us the technology which we then manufacture for the market commercially and economically," adds Mr Nagafuchi Eiichiro. Orders for overseas markets come via the company's Japanese head office.

"Ten years ago, China had a competitive advantage - but that's no longer the case," stated Mr Nagafuchi Eiichiro, who also added that, "Today, Government regulation is very strict particularly on environmental requirements which can effect such things as our painting lines through smell, noise and chemical materials we use."

Mr Nagafuchi Eiichiro recognises that there are a number of competitors in the market providing this type of equipment, with many of the smaller competitors located in Wuhan and Ampire provinces, but the main competitors in this high technology sector



The range of grains and cereals plus other products that can be successfully sorted is ever increasing



Yimin Tang, Satake System Manufacturing's optical sorting development, with Zhao Bin demonstrating the sorting capabilities of the Satake machines in the demonstration facility

in China are AMD and Meyers colour sorters.

“We calculate that there are over 40 different major colour sorter manufacturers operating in China today,” says Mr Nagafuchi Eiichiro, who added that, “Many of these companies started out imitating our machinery, but they are now getting stronger. This is why we target the top companies in each of the sectors we supply. However, we continue to support colour machines which provide higher performance and lower prices to compete with these low-cost, mass producers in China.”

Other foreign equipment manufacturers have also formed

subsidiaries in China to exploit the market with low-end colour sorters. According to research carried out by the company, shorter grain rice is grown in the north of the country alongside Japanese-style production and where the farms are relatively very big.

“As a result we have concentrated on the markets in the north,” says Mr Nagafuchi Eiichiro, “Southern rice is longer and farms are smaller and that is what we are trying to modify/customize our machines to their process,” adding that, “Many of our customers are located in the northern areas of the country where our equipment the most suited.”

**Factory tour and testing**

Mr Yimin Tang, Satake System Manufacturing’s optical sorting development manager - for products other than rice - was kind enough to show us around the company’s laboratory and its testing and research facilities on the Jinfeng Road site in Suzhou.

According to Mr Yimin Tang, “These machines are capable of processing rice, wheat, corn and cereals such as millets, etc; there are special machines for coffee beans and for finished flours.”

However, he also stated that, “The more difficult to process products are nuts, peanuts and frozen blueberries; all products that have a high retail value. After these products are sorted they can achieve a higher price in the marketplace making the return on investment in this equipment higher than you can achieve from the standard machines.”

Mr Nagafuchi Eiichiro, agreed with this statement by suggesting that, “Colour sorters are more profitable when processing higher-valued products,” he then went on to say that, “while 100 percent of all Japanese rice is colour sorted prior to processing, China is also experiencing a revolution in rice quality with has shown marked improvements as the country has become richer.”

But according to Mr Nagafuchi Eiichiro, “The Japanese are concerned about the quality and taste of rice and any small, broken rice is of concern to the Japanese consumer. That’s not the case here in China, but things are changing rapidly.”

Mr Nagafuchi Eiichiro then stated that in his opinion, “appearance is everything,” and that, “Traditionally speaking, we need to polish and polish rice to enhance the appearance but that doesn’t mean it’s more healthy. That’s why we have develop the GABA rice process.”

In the south west of China consumers “prefer the long-grain rice,” according to Mr Nagafuchi Eiichiro, while the majority of Chinese eat short-grain rice. As a result machine set-ups are different. Smaller capacity machines, such as the ones we were shown in the demonstration area process coffee and other

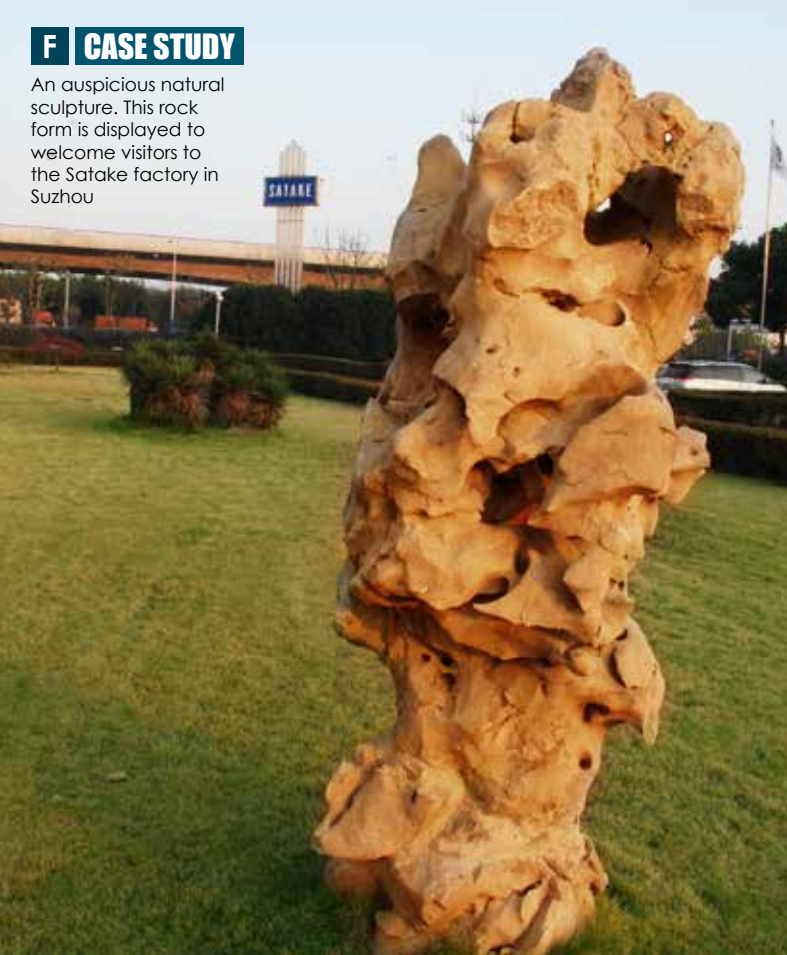


Laboratory equipment for testing rice samples supplied by customers in its laboratory facility on the factory site



Zhao Bin keeps an eye on the sorting process in the testing facility

An auspicious natural sculpture. This rock form is displayed to welcome visitors to the Satake factory in Suzhou



General Manager Nagafuchi Eiichiro (right) with Yimin Tang, Satake's optical sorting development manager - for products other than rice - were kind enough to host Milling and Grain during our visit



high-valued products and were also popular among university laboratories.

**Hands across the oceans**

The most recent milling liaison involving Satake of Japan, and the one that has gained most headlines, is the working agreement signed between it and Alapala of Turkey, which aims to see more Satake equipment sold into that country, and through Alapala's global network.

However, sales of Alapala equipment, via Satake, into China are also a possibility, stated Mr Nagafuchi Eiichiro, General Manager of Satake Systems Engineering (Suzhou) Co Ltd of China. Satake will be providing flour-milling equipment to the Turkish industry through its new arrangement with Alapala, "... and it may well that the we also import Alapala equipment into China for the industry here," he added.

However, this is not the only arrangement Satake has agreed over the past year or so that involves the milling sector. Satake Corporation, Hiroshima, Japan purchased 100 percent of renowned silo and bulk handling supplier Dennys Silo and Engineering of Allora, Queensland with the deal finalised at a signing ceremony in Bangkok, Thailand in mid-June, 2015.

**THE GABA RICE REVOLUTION**

At the beginning of 2012 Satake launched rinse-free GABA rice. GABA stands for an amino acid, gamma amino butyric acid. That may be an amino acid unfamiliar to most of us but it carries many health claims with a key one being the lowering of anxiety in the consumer. This specially-processed rice increases the amount of gamma aminobutyric acid from brown rice, producing a softer grain.



GABA (gamma amino butyric acid) is a functional component found in high quantities in germinated brown rice. The germination process adds a variety of nutrients through the activation of dormant enzymes, while also softening the bran layer. The rice kernel is germinated until the flavour and nutritional benefits are maximised; with GABA rice is an easy way to introduce this important amino acid into a daily diet.

Satake's long experience with rice processing technology enabled it to develop the 'Rinse-Free GABA Rice' production process in 2009 and introduce 'Rinse-Free GABA Rice' to the world.

Once milled this rice contains 13mg of GABA per 100g of rice, there is also 10 times more GABA in the sprouted brown rice than found in traditional white rice, and three times more GABA than in regular brown rice. 'Rinse-Free GABA Rice' also has the same taste and texture as milled rice.

Growing consumer demand in Japan encouraged Satake to begin selling its 'Rinse-Free GABA Rice' through the Omusubino-GABA store and then making it available through its website. The consumer product comes in two package sizes - 1kg and 5kg packs. Annual sales target in the first year was 7000 packs.

"We sold two GABA processing plants in 2015 and we expect more this year. Consumers are increasingly concerned about health and food security," stated Mr Nagafuchi Eiichiro, "Today we are producing five million tonnes of GABA rice annually."

The acquisition of Dennys provides a multi-faceted benefit to both organisations - it gives Dennys access to a new global and expanded domestic sales network with particular focus on South East Asia and the Pacific Region, providing the perfect growth platform for Dennys to take advantage of opportunities in the much-touted "Asian Century".

The deal provides Satake access to world-class bulk handling and storage equipment, further enhancing their capabilities as the leading Asian supplier of rice and grain handling solutions in the world.

The purchase of Denny's by Satake looks to be incredibly beneficial for both parties as Dennys will continue to operate normally with a strong focus from both sides that the nature of the existing business is to be preserved. Retaining the elements that made Dennys a successful business over several generations. All staff were retained in the change of ownership process, with Mr Denny continuing in the business as Head of Sales and Special Advisor to Satake.

Satake Australia will enhance their sales portfolio through their existing network of sales staff and agents, with existing presence in Queensland, New South Wales, Victoria, Tasmania and New Zealand. International sales will be coordinated through Thailand and Japan. ☺