



CTH MILLS

A FLOUR MILLING INDUSTRY THAT'S BASED ON FRIENDSHIPS AND PATRIOTISM

Milling and Grain reports on its visit to the latest new build in Taiwan - CTH Mills - that has the industry talking throughout South East Asia

Taiwan has not always been the graceful, peaceful and plentiful country it is today. There was a time following the Second World War when the country was in a poor state and conditions were tough for a population that had not long annexed itself from the Chinese mainland, and was relying on its own dedication and resources to establish a new beginning and to feed itself.

“My great grandfather built our original flour mill here in Taipei in 1953 – over 60 years ago. He had been working in Thailand prior to the war and operated a gold shop business in Bangkok’s Chinatown” says Brian Lin Suphananonta, who is in his early-30s and is now operating the family milling business which owns the newest flour mill in Taiwan.

Mr Suphananonta is a fourth generation flour miller at his family-owned Chiao Thai Hsing Enterprise Company where he has worked since 2012. He speaks excellent English and has studied at Boston University, USA, when he gained an undergraduate degree in finance and operation.

He has completed the IAOM Fundamental Milling Course, has attended the OCRIM Milling Training Course and has a KSU/IGP Milling Specialist Credential.

In his role as ‘Assistant to the Chairman’, he oversees the day-to-day operation of the new mill, which is in the Yangmei District of Taoyuan on the outskirts of Taipei. He is supported by Plant Manager Cheng, who has worked in the family business for more than 50 years and is the second-longest serving employee. Alongside Mr Cheng is Leon Huang, who joined the company at the start of the new build in 2011, and is extremely knowledgeable about the new operating systems within the mill.

The government had asked skilled men “to do something in Taiwan for the food industry,” he adds.

“After the war the Taiwan government asked businessmen who

had gone abroad to invest in Taiwan and a lot of patriotic people like my great grandfather came back. He built one of the first flour mills in Taiwan.”

Today, the family business ‘tops-and-tails’ the flour milling industry in Taiwan; having built the earliest mill in the country and now the newest mill.

The family business is known locally as CTH Mills and is processing over 1000 tonnes of wheat per day for the Taiwanese market.

The original mills is located in downtown Taipei and accounts for 30 percent of total production while the new CTH Mill, at Taoyuan, makes up the remaining 70 percent.

The new mill was built and equipped by Ocrim and is attracting attention not only from within the country but also from throughout South East Asia as visiting flour millers come from as far afield as Indonesia and the Philippines can testify.

Whilst the old mill was destined to close in 2016 it still continues to process wheat at 300 tonnes per day today, while the new mill processes 760 tonnes per day from its two production lines.

“This is the most technologically-advanced flour mill in the region,” says Mr Suphananonta. “It is fully computerised and highly automated.”

Friendships in flour milling

What strikes the visitor as unusual is that the CTH Mill not only stands right beside the company’s main competitor in the marketplace, but it has a high-level conveyor link which joins the two companies’ production facilities.

“We are very friendly with our neighbor,” says Mr Suphananonta proudly.

It’s the LH Mill and is the country’s number one flour production unit in terms of volume. The location and linkage is all about Taiwanese businesses helping each other, which reflects the spirit of communal effort that has allowed the country to



survive independently in the South China Sea.

“There’s personal friendships involved and a synergy between production units of the two mills. We share the future and on occasion when wheat supplies demand it we can readily supply each other. We also offer each other technical support,” he adds.

Taiwan has a population of some 23 million inhabitants supported by just 20 flour mills of varying capacities and qualities. In the past the country had built 30-40 mills but many were not efficient and have closed.

“Today’s consumers are looking for higher quality foodstuffs

and safety compliance. Older mills cannot achieve what new mills can in these terms, he adds.

“We see these older mills being phased out over time. There is also over-capacity in our marketplace and a lot of the smaller mills are running at just 10-20 percent.

“We try to deliver quality and a value-added services to win over customers, but this is difficult in a marketplace where personal relationships are important.”

Many mills have been family-operated for two or three generations like ours and have loyal customers. They are not

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losing money and have enough production to sustain themselves, but over the next five to 10 years we will see the next generation unable to take over their families' operations and there will be a better opportunity for prosperity among the new facilities being built," he explains.

In the future the milling industry will have to be able to meet increasing regulation requirements, he points out.

"We have had our share of scandals around food safety and oil production caused by people cutting corners.

"With stricter regulations and consumers becoming more sensitive to what they are putting on their tables, we will need people in our industry who are dedicated to safety and quality."

Equipped for the future

CTH Mills has the first optical colour sorters to be installed in Taiwan and all incoming wheat passes through them. Both are 20-tonne-per-hour capacity machines.

Without the colour sorters one of the problems had been toxin contamination, where damaged and discoloured grains and cereals were finding their way into the production system. The new Ocrim equipment takes care of this aspect of quality control.

The mill also has automated moisture monitoring, which controls tempering and provides consistent tempering percentages. The flour milling process also sees little bran taken out on the paddles and the loss-in-weight weighers means that

each batch is accurately measured and is significantly better than traditional mechanical systems.

In addition, the mill has more modern purifiers. An advancement, says Mr Suphananonta is that there is now an extra set to do detailed particle separation from the outer layer of the grain.

The mill itself is positively pressurised to pharmaceutical standards, so it is set up to keep outside air and foreign particles from entering the building. This is in addition to a central vacuum systems that operates through one combined system for the entire mill.

Separate from the mill itself are the brand-new stone grinding mills and this is where the mill is looking to expand its production in future.

"Overall flour standards in the country are high compared to less developed countries in the region.

"We hope to be a pioneer of healthy flour products, with products produced from spelts milled from ancient wheat varieties.

"However, at present we are more of a standard white flour mill but we would like to produce products in the Japanese style, for example, in future," explains Mr Suphananonta.

Gluten-free, while not yet an issue in Asia is making an impact and one Mr Suphananonta does not favour.

"We should be supporting studies based on sound science rather than just responding to initiatives being undertaken by special interest groups.

"There is a trend for people to believe what they read in magazines and books. This is not a health issue but a fitness issue. People interviewed keep hearing gluten is bad for us. Scientifically, unless you have celiac disease, it's not bad for you and therefore not eating gluten is simply a personal choice, which is fine but should not be seen as a choice warranted due to imaginary health concerns."

Silos to resist earthquakes

The flour mill is supported by a brand new, all-concrete, 20,000-tonne capacity bank of silos that are arranged in a grid of 28 individual units with 18 1000 tonnes bins plus 10 'star' bins of 600 tonnes.

The entire mill is built like a fortress at a cost of US\$100 million including equipment, says Mr Suphananonta.

"We are in an earthquake region on the Pacific rim and therefore the foundations of the mill and silos have been built to withstand a significant earthquake."

Milling in a hot and humid country also focuses the production staff on addressing mould and condensation challenges.

Mr Suphananonta says mould is always an issue and all areas of the mill have to be cleaned regularly in an attempt to combat the problem and control the moisture levels in the final product.

"We use grade one wheat with a 'falling number' above 350 so that our raw materials remain in good condition."

Wheat storage is limited to a duration of just one month with shipments coming in by trucks every operational day. The company's quality assurance laboratory also carries out random wheat sampling for trucks coming into the mill.

"We have a full bakery laboratory and we test everything that is workable in our flour."

Full transparency with customers

The whole mill is controlled by just three operational staff per shift, excluding those on the bagging lines and in warehousing. The mill runs a two-shift schedule.

All flour passes through a quality control and assessment

process where specifications are recorded in terms of their: batch number, manufacturing date, best before date, moisture and protein levels, product fineness, bacterial count, bake test, overall performance test on a pass or fail basis, pesticide residues status and toxins.

Each batch is signed off by the quality assurance supervisor before receiving a final stamp of approval from the company's technical team.

"These specifications are standard. What really concerns us are the bacterial counts and USDA pesticide and toxin residue reports which are directly of concern to bakeries and consumers."

The company offers its customers the ability to track the products they buy through a website that contains all the certification details by batch number; including each product's GMO status. A QR code sticker on its 1kg product packaging instantly links buyers to the relevant batch information online.

"Through this type of transparency customers can see everything we have recorded for each batch produced and wheat used – except sensitive information such as prices of course.

"Our commitment to our customers is to provide a safe, high-quality product. And of course we all know that we should get what we pay for.

"Our statistics show that two out of 10 visitors to our website are buyers. Young people are trying to use the service and bread makers also have cell phones and are looking at the batch information we provide on the website. This gives the consumer increased confidence in what we are providing for them and their families."

Security not overlooked

Security and sanitary standards are also important in maintaining quality standards.



"We need to know who comes into the mill and who goes in and out of all our production areas. Each door is key-card operated. And there are over 300 cameras monitoring the factory and its production processes.

Finally, Mr Suphananonta talks about the need to maintain cleanliness in the flour mill at all times.

"We have a dedicated team of cleaners that keeps the whole mill clean." And cleanliness is the company watchword not only throughout the factory and its surroundings, but more importantly in the products it produces. ☺

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