



# Tiger, tiger burning

There are real tangible business opportunities within the Chinese food ingredients market, and the rest of the industry should be alert to them, argues **Peter Peverelli**



**D**espite memories of the melamine scandal, I believe now is the moment to redirect the industry's attention towards this fact: China is still the single largest growing market for food ingredients.

## Production

Production volumes of all food ingredients have increased. The volumes of major food ingredient types are listed in Table 1.

All generic ingredients are manufactured in China. While some are still not available in sufficient volumes to satisfy local demand, for many others China has become a net

exporter. On the other hand, the industry is also reporting overproduction of a number of ingredients. This has been a long-term problem in the Chinese industry. Once a Chinese company starts producing a certain ingredient and is reported as successfully doing so, a number of others will start up production as well, without a real business plan; simply expecting to cash in on the pioneer's success. This will soon lead to overcapacity, harming the interests of all suppliers. The pioneer companies typically provide a good quality product, while the imitators have less concern for quality, merely competing on the price. The pioneers, with their higher development costs are harmed most severely by this. The market may initially benefit from the price decrease, but later has to pay the price of low availability of good quality products. The result of this vicious cycle is that the markets of most ingredients in China consist of a relatively high number of small players of mediocre quality.

Potassium sorbate is a good example of this process. China has just become a net exporter of this preservative, but there already is talk of surplus capacity. The pioneer here is Wanglong, a success story of a private entrepreneur who switched from pickles to sorbic acid and derivatives in 1992. One Chinese database lists 22 manufacturers of potassium sorbate. Three of these, including Wanglong, are exclusively producing sorbates. It seems that a number of the remaining companies are not actually producing, but this list is still long for this type of market. Wanglong is performing well, but the pressure is high. That pressure is not only coming from other manufacturers of potassium sorbate, but also from suppliers of other preservatives, like natamycin, which has currently reached the stage in which the number of Chinese suppliers is growing.

## Exports

Chinese insiders estimate that China is currently good for approximately 15% of the global food ingredients trade. However, for some ingredients, China's contribution is more than half the global volume. Table 2 lists some ingredient types and their estimated contribution to the global market.

This list consists exclusively of generic products. The Chinese industry is not yet ready to position itself in the novel products section of the business.

## Innovation

So far this positive narrative of Chinese food ingredients mainly concerns generic products. To really take in a leading position in this business, the Chinese industry will need to make a novel contribution as well. R&D activity seems so far to concentrate on bringing the quality of domestic products to international level, to lower the need for imports. A worthy example is the development of China's first dairy culture by the Dairy Biotechnology and Engineering Institute of the Inner Mongolia Agricultural University. Fermented dairy beverages (like Yakult) are popular in China and the cultures are so far mainly imported.

Table 1  
Production volumes of major food ingredients

Product	volume
Flavours	91,000
Colourants	324,600
Preservatives	179,000
High-intensity sweeteners	160,000
Starch sweeteners	6,350,000
Polyols	900,000
Oligosaccharides	75,000
Nutrients	184,000
Emulsifiers, stabilisers, thickeners	250,000
MSG	1,900,000
Citric acid	760,000
Lysine	380,000
Lactic acid	110,000
Yeast	190,000

Table 2  
China's contribution to the global market  
(selected ingredients)

Product	share %
Citric acid	30
Xylose, xylitol	50
Saccharine	40
Ethyl maltol	80
Vitamin C	60
Vitamin E	30
Sorbitol	40
Sodium cyclamate	65
Monoglycerides	50
Taurine	65
Potassium sorbate	40



# g bright

If there is one novel group in which the Chinese industry could achieve a leading position, it is vegetable extracts, in particular extracts from traditional Chinese medicinal (TCM) herbs. China is a main production region of goji and seabuckthorn berries that are currently gaining worldwide attention as superfruits. Herbal extracts in which China already is an important supplier include: artemisinin, solanesol, St John's wort extract, licorice root extract, and ginkgo extract. The recognition of TCM extracts is growing rapidly in Europe. A number of international corporations, like Unilever, and research institutions like Wageningen University, are actively screening TCM for use as functional food ingredients.

petition asks the government to impose tariffs of about 188% for China. The petition also alleges substantial countervailable subsidies on imports from China.

Dumping accusations have become part of life in the Chinese food ingredients industry. This is partly a result of the Chinese competition cycle introduced earlier in the article. Chinese exporters as well prefer to compete with the price than with quality or with novel products. However, China is still a relatively cheap place to produce anything, which can easily lead to dumping accusations. While in the past the Chinese sides virtually always lost, they have recently started to be more active in fighting back by hiring local lawyers and preparing robust files.

A more positive development, at least for the Chinese side, was that Guangdong Food Industry Institute, a leading and first manufacturer of sucralose in China, has made progress in its legal battle with Tate & Lyle over the alleged infringement by the Institute of the Tate & Lyle's process patents. A US judge determined that the Institute does not infringe any of the sucralose patents alleged by Tate & Lyle. Patent infringement battles are another arena in which the Chinese companies used to find themselves on the losing end, but are now making progress by putting up a battle.

I am obviously not speaking for one party or the other in either case, but am simply pointing out that Chinese players have ►

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## Commotion

A really active market needs some commotion to keep it alive. A major event in this category is the dumping accusation to Chinese citric acid exporters by a number of US producers. Archer Daniels, Cargill, and Tate & Lyle have filed petitions with the U.S. Department of Commerce and the U.S. International Trade Commission (USITC), alleging that imports of citric acid and certain citrate salts from China are being sold at less than fair value. The petitions ask the government to impose antidumping and countervailing duties against imports from China. If the USITC accepts this petition, an investigation will start, and the Commerce Department will issue preliminary determinations regarding the degree of dumping and subsidies in three to five months. The

*The functional potential of TCM may be lucrative for international companies*





▶ started to make use of their legal rights, which is yet another indication of the growing maturity of the Chinese industry as a worthy party in the global food ingredients business.

### Globalisation

International companies have been busy in 2008. Already earlier, many international players started to establish R&D centres in China. It is easy to find well educated people in China at relatively low costs, and China is an important growth market for food ingredients.

Danisco has opened the Danisco Shanghai Centre which will coordinate the company's activities in Eastern China. The new Danisco Shanghai Centre brings together its innovation and application labo-



*Traditional Chinese foods are being adapted to modern large-scale production*

dairy ingredients like: whey powder, butter oil, milk powder, lactose, cheese, cultures and butter for application in: ice cream, infant formula, chocolate and bakery products.

### Bakery

China is one of the most promising markets for bakery ingredients. Competition is tough and Chinese bakers try to differentiate themselves from competitors by using high-quality ingredients. Imported bakery ingredients include: enzymes, emulsifiers, flour improvers, dried fruits, fruit pulp, nuts, raisins, butter and margarines.

### Brewing

I already pointed out that both Danisco and Novozymes are focusing their enzyme

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ratories, the sales offices of Danisco, Danisco Animal Nutrition and Genencor, and a new Genencor R&D centre. Danisco has also announced that it intends to increase its activities in brewing enzymes.

DSM opened its China Campus in Shanghai's Pudong region in January this year, and other notable international projects include Cargill's new Creative Centre in Shanghai, Novozymes' new enzymes plant (the largest in China), and ABF's new yeast plant.

### Opportunities

With Chinese product improvement and all these activities from the big international names, are there still opportunities left on the Chinese market? There are plenty. To begin with, many products come in various grades and the Chinese production is still highly concentrated on generic products. As indicated earlier, Chinese competition is not always conducive for good quality. Suppliers of high grade better performing ingredients are still in demand. For example, there are a number of producers of Vitamin A in China, but these have not yet succeeded in developing a Vitamin A formulated for application in cooking oil. This means that China is not

only a growing market for specialty ingredients, but that there also is ample space for suppliers of high and special grade generic products.

An application area that deserves special attention is the adaption of traditional Chinese foods to modern large-scale production. This transformation means that recipes have to be rewritten to suit such production, while preserving the original flavour, taste and texture. Babao porridge is a sweet sticky rice porridge with nuts and fruits; a traditional product that is now available in convenient cans. Xylitol, sucralose and iso-ascorbic acid have been approved for application canned babao porridge in 2008. This product also offers interesting challenges for suppliers of emulsifiers. It will prove worth the investment for European ingredient manufacturers to acquire knowledge of such products and their production processes.

Other application areas in which China is an interesting market for all types of ingredients include:

### Dairy

Domestic raw milk is still mainly used for pasteurised or UHT milk and yoghurt. This has created opportunities for imports of

activities on the brewing industry. China has developed into the world's largest brewing market and is likely to retain that position for a long time. Key brewing ingredients include: enzymes, hops and malt. Barley is also imported.

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### Recipe for chrysanthemum honeysuckle icecream

Ingredient	Dosage (%)
Whole milk powder	7
Crystal sugar	13
Margarine	10
Glutenous rice meal	3
Gelatin	0.3
CMC	0.3
Sucrose ester	0.05
Monoglycerine	0.1
Chrysanthemum extract	15
Honeysuckle extract	5