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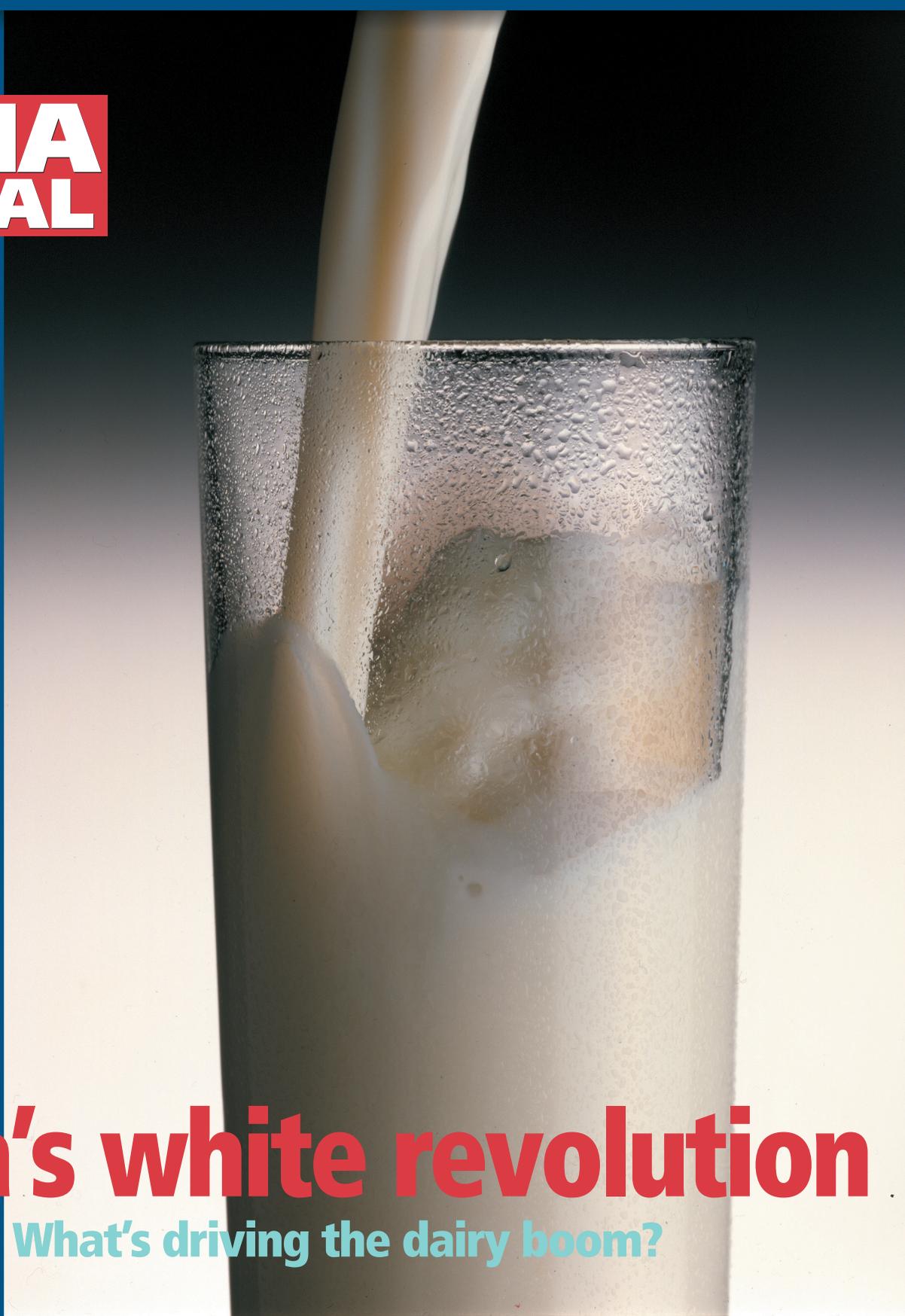
CHINA SPECIAL

Focus on China
Market trends
and analysis

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China's white revolution

What's driving the dairy boom?

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Comment

Focus on China

Welcome to this special edition of *International Food Ingredients* magazine, and our annual focus on China. It's an extraordinarily exciting time for the food ingredients market in China, being still underdeveloped and with such enormous potential for growth. In this China Special issue we look at both the opportunities for international ingredients suppliers, keen to move into the Chinese market, as well as the opportunities for Chinese food additives industry. We have taken broad look at this dynamic marketplace, and then focused on specific trends – the most noticeable being China's booming dairy industry which, in stark contrast to its European equivalent, is going from strength to strength.

It's no exaggeration to say China is a land of opportunity – we know that already – but the truth is that *this* is what makes next year's Fi Asia-China event (also known as FiAC) so exciting. With burgeoning local demand for more convenient food, the opportunities feel enormous. Held at the Shanghai New International Expo Centre from 15–17 March, FiAC 2007 presents a brilliant forum for the exchange of ideas and the development of contacts, as well as being a great place for companies to do business. I look forward to meeting you there.

Camilla Edwards

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Cover image courtesy of DSM

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*As ingredient suppliers jostle for a share of China's young food processing market, **Dominique Patton** examines a market driven by rising spending power and demand for more convenient food*

Land of opportunity



The arrival of sophisticated food processing in China some years ago heralded exciting times for the global food ingredients industry, at the same time as seeing sales slow and stagnate in other regions of the world.

Dairy products, fruit juices and bakery items, all relative strangers to the traditional Chinese diet, now sell in significant volumes while more recent years have seen a growing processed-meats and ready-meals sector, rising chocolate consumption and strong demand for savoury snacks.

New food categories are good news for ingredient makers supplying this industry, which made US\$183 billion in sales during 2005, and sees annual growth rates topping 20%. China's processed food industry still

investment in innovation and bigger brands.

This is good news for a number of ingredient categories. For example, in dairy – a sector that has seen rapid progress in recent years – both national brands and the smaller regional dairies are adding probiotic bacteria to their products to boost value in one of the most fiercely competitive dairy industries in the world.

Probiotic suppliers Danisco and Chr. Hansen are already reaping the benefits. Danisco has seen 40% growth in all cultures in China during 2005 and Chr. Hansen says probiotics now make up more than 30% of the cultures it sells to China, after only a couple of years of marketing the product.

“People often believe that the Chinese market is all about price and although it is cer-

'The growth of China's processed food industry will continue as urbanisation lifts spending power as well as demand for more convenient food'

only accounts for around 30% of food consumed in the country, compared with more than 80% in other regions, but suggests strong growth will continue as unprecedented urbanisation lifts spending power as well as demand for more convenient food.

However, today's food processing sector is still highly fragmented, made up of an estimated nine million (usually small- to medium-sized) firms. China, more than any other market, remains highly price sensitive and the ingredients sector is only too aware of the limitations.

There are some signs of changing attitudes to formulation. Chinese food makers are looking for higher value sales, as high raw material costs take their toll on already low margins and consolidation drives more

tainly very important, there is an increasing health-consciousness, partly driven by the recognition that China too is facing a rise in obesity-related disease,” says Gorm Larsen, director of innovation for Danisco's Asia-Pacific business.

This growing health awareness is also reflected in confectionery. Today there are around 40 manufacturers of sugar-free gum in China compared with just four in 2001, thanks to the lead taken by big brands like Lotte and Wrigley's.

Mintel estimates that sugar-free gum grew a hefty 146% during 2005 and Danisco – leading xylitol supplier – as well as France's Roquette – Asia's biggest supplier of polyols – expect more than half of all gum on the market to be labelled as sugar-free within a couple of years.

"It [China] can definitely become a significant market within global markets in the next five to 10 years," says Larsen.

The sugar-free trend looks set to make increasing impact in sweets too. Confectionery firms are looking for ways to compensate for the soaring sugar prices seen in China this year. Some have chosen to invest in processing machinery that results in a higher quality product while others are looking at using sugar-free sweeteners to create premium-priced products.

Wang Haining, general secretary of China's Food Industry Association's candy committee, says: "Regardless of the financial issues, I still believe that sugarless candy will play an important role in the future candy market."

In the beverage sector, too, there are

domestic firms are supplying more and more of the country's manufacturing industry with their basic ingredients.

In soy proteins, for example, the Chinese have virtually taken over the isolated soy protein offering, a market started by American companies. There are now around 30 domestic ISP producers, producing about 200,000 tonnes per year. Almost half of this is used by China's fast-growing processed meat sector, with the rest exported to markets like Russia and South-East Asia.

Some foreign firms say they can no longer compete, given the comparable quality offered by the Chinese firms combined with a lower price. This successful recipe is evident in the gums market too.

Xanthan gum, used to thicken sauces and

bled its capacity and now produces about 3,000 tonnes for the food industry, says it does not target the same customers as global leader Danisco.

"It has very strong research and have developed a DMG compound of different emulsifiers," says Penny Wu, export supervisor at the group. "But while customers might prefer this product, our price is 10–20% cheaper."

So while the young Chinese ingredients industry has made extraordinary progress in the last 10 years, and already controls the world market for a handful of large volume ingredients, it has some catching up to do in other areas.

International companies also seem better placed to benefit from emerging trends in the country's food industry. Health foods, already

'Chinese food makers are looking for higher value sales, as high raw material costs take their toll on already low margins and consolidation drives more investment in innovation and bigger brands'

signs of an emerging trend towards premium products. Manufacturers are seeing higher value sales from juices than carbonated drinks, driving imports of fruit concentrates from abroad. China produces large quantities of fruits but cannot supply sufficient amounts for concentrates of the most popular juices, such as orange and pineapple. Last year it imported 55,000 tonnes of orange juice concentrate.

While there are barely any national juice brands yet in China, foreign investors have spotted the potential: Danone recently bought a stake in Beijing-based Huiyuan, citing its interest in the firm's strong position in 'health-oriented products' like nectars and pure juice. Multinationals will raise the stakes for innovative, premium products.

While foreign ingredient suppliers do well when Chinese food makers trade up to more expensive products, Chinese ingredient suppliers, with their cost-efficient manufacturing, are increasing their share of large volume, lower priced ingredients.

The Chinese food additives association estimates that the country produced around 3.3 million tonnes of ingredients in 2004, an increase of 15% over the prior year, when volumes had already increased by 20% on 2002. Most businesses are wary of using statistics in China but it is clear that

dressing, is increasingly exported from China to international customers. The Chinese, known for their strengths in fermentation after years of making traditional foods like soy sauce, have low cost capital to their advantage, and now account for about 30% of the global market, estimates Fabrice Bohin, Cargill's hydrocolloids business development director.

"You just have to look at the import and export statistics and you will see how China's portion of the market is increasing. And there is no logical reason for this growth to stop," he says.

Such developments have led Cargill, Danisco and xanthan-gum leader CP Kelco to buy into the cost-efficient production base by acquiring Chinese plants, although little of the output goes to the Chinese food industry. After some 10 years in the market, Chinese xanthan-gum quality is now sufficient for many international customers.

For some applications, food makers still prefer to pay more for better performance from an ingredient. And the long-time industry specialists tend to retain their edge in applications.

Guangzhou-based Masson group, which claims to hold around 30% of China's emulsifiers market, acknowledges the point of differentiation. The firm, that last year dou-

popular thanks to a well-established association between food and health in China, look set for strong growth, especially in the build-up to, and aftermath of, the Olympics.

However few domestic companies have invested in the science required to prove the benefits of health foods and while health claims regulations are still a grey area in China, it is only a matter of time before the authorities tighten up on unsubstantiated claims. The long-term investment needed to research and market probiotic bacteria will certainly give the current leaders a big headstart in this area.

China has proved several times over that it can quickly undercut the production costs of other ingredient firms and Chinese companies will continue to steal share in export markets by competing on price. One industry association estimates export sales during 2005 to have reached \$1.85 billion.

When it comes to innovation, the domestic industry is still following trends developed elsewhere in the world and making little investment in R&D. It will take time before Chinese ingredient makers rival the global firms in innovation, service and applications technology. International firms are therefore expected to see significant opportunity as the Chinese food industry develops higher value products in the future. **IFI**



In advance of the networking event for R&D professionals at FiAC 2007, **Peter Peverelli** of Eurasia Consulting introduces us to the Chinese food industry's newest innovations

The road ahead

The human propensity for innovation is normally reflected in the structure of our organisations, and the R&D department is often the source of innovation. Then other departments, in particular marketing and sales, feed R&D with information about the wishes of customers, trends in the market and new inventions. Management feeds it with capital and the ratio of R&D spending is, consequently, regarded as one of the key figures of a company.

Given this premium on innovation, here we identify three main ways in which Chinese food scientists are designing novel foods.

Functional foods

Food and medicine have never been as widely separated in China as in the Western tradition. Virtually all food and food ingredients are attributed certain medicinal activities in traditional Chinese medicine (TCM). Against this background, it is not so hard to imagine why the notion of 'functional food' was accepted so quickly and smoothly in China: it was not a novel concept for the Chinese. In fact, a number of fashionable functional foods in Europe, like Gingko, originate from Asia. As soon as 'functional ingredients' established themselves as a separate and lucrative category, medicine companies started to promote extracts from TCMS as food ingredients.

According to statistics published by the China Chamber of Commerce of Medicines & Health Products Import & Export (CCCMHPIE; see our interview with Cui Bin of this organisation on p.16), Chinese exports of herbal extracts amounted to US\$226 million during the first half of 2006. This was 41% more than during the same period of 2005. Preliminary statistics show that the situation during the second half of 2006 was even better.

● Fungi – China's new treasures

An important product group in this category are fungal polysaccharides. With an annual volume output of 5.7 million tonnes, China is the world's largest producer of fungi. A number of fungi are used in Chinese medicines. Some of them, like lingzhi (*Ganoderma lucidum*), are already starting to become known in the West. With modern extracting techniques, substances with much greater functionality can be obtained. Fungi also contain fractions of protein, minerals and other nutrients. The functionality ascribed to these substances includes enhancing the immune system, inhibiting the growth of certain cancers and slowing down the ageing process. Fungal polysaccharides are interesting in a business sense as well, with prices around US\$500 per kg. The popularity of fungal polysaccharides as functional ingredi-

fruits and vegetables. Local food specialties used to be a source of pride in China, but in the course of the 'modernisation' these traditions became rather suppressed. Local governments have regained interest in these products recently and many of them are even applying a kind of 'protected' status for their typical local specialties, prohibiting manufacturers from other regions using that product name, as with champagne in France. Only ham produced in Jinhua, in the Zhejiang province, can now be marketed as Jinhua Ham. Other examples of recently launched novel foods include:

● Birch wine

The Dailing Forestry Research Institute of Yichun in Heilongjiang province has developed a wine made from the juice of the birch tree. Other ingredients are magnoliavine fruit and blackberry, all indigenous

'The combination of the size of the Chinese food industry and the adventurous aspect of Chinese culture makes China the largest test market for novel foods in the world'

ents is growing in China, with lingzhi-enriched beers, wines and teas appearing on the market.

A recent example of a novel food ingredient based on fungal extracts is coriolan calcium. This is a new type of calcium supplement developed by The China Academy of Sciences based on a compound of coriolan and calcium. Coriolan is derived from the fungus *Coriolus versicolor*. The compound is said to not only function as a calcium source, but also to enhance the immune system. It can be added to milk powder, cereals and rice porridge.

Local specialties

Chinese food designers have grown very adept at transforming traditional Chinese foods into products manufactured at an economical scale. A related trend is to create new foods from typical locally cultivated

wild fruits from north-east China.

● Turtle snacks

The Turtle Company of Qingdi in Guangdong province has developed a snack food from the local variety of turtle, called 'dried turtle bits'. Qingdi has been famous for its turtles, a large amount of which are exported to Japan. The snack food project has been undertaken to develop higher value turtle products processed in the region.

● Donkey milk

Dawankun Biotechnology of Qiupuhu in Xinjiang province has launched China's first commercial donkey milk. Dawankun has made trial batches of drinking milk and yoghurt. Local people do not speak of 'donkey milk,' but of 'dragon milk'. So, Dawankun is marketing these products under the Western Dragon brand. The region can produce two tonnes of donkey milk per day.



The popularity of fungal polysaccharides as functional ingredients is growing in China, with lingzhi-enriched beers, wines and teas appearing on the market

Adventurous by nature

The Chinese are willing to experiment. This is perhaps based on the same cultural values that make them so interesting in gambling. A consequence of this trial-and-error mentality for product innovation is that the route between conception and prototype is often considerably shorter in China than in Europe. Novel products are often tested by throwing them on the market and see how consumers react. Combined with other traits of Chinese culture, like playfulness and curiosity, this means that more peculiar products are launched in China than in any other market in the world. Here are a few good examples:

● Pineapple crisp pie

Manufactured by Qiqi Healthy Food of Xiamen, Fujian province, this is a known ingredient in a new formulation. It's positioned as a low-fat pineapple-flavoured healthy snack and the main ingredients are starch, maltose and pineapple.

● Male-female fruit juice

Xinyuan Shunxing Science Trading, in Beijing, has launched special fruit juice

beverage for male and female consumers, cashing in on the idea of a battle between the sexes. The manufacturer does not provide details as to the difference between the two varieties.

● Biscuits 'n' jam

Guanghe Food in Shandong province has launched a new line of 'fun' biscuits. A packet of biscuits includes a sachet of jam and the biscuits are dipped in jam and eaten.

What can we learn?

These different types of innovation each have their own influence on markets outside China.

In theory, functional ingredients extracted from TCM have mature markets in regions like Japan, Western Europe, and North America, where there is a growing interest among consumers in functional foods and beverages. The challenge for the Chinese manufacturers is to introduce the functionality of their extracts in a way that is convincing in those new markets.

One step is to create a stream of publications attesting to the activity of the ingredi-

ents. Ginkgo is now widely accepted in Western markets, because 'experts' are backing the claims made by manufacturers.

Participating in the right trade fairs will be another useful step. From their perspective, European suppliers of herbal extracts and other functional ingredients would do well to identify useful TCM extracts for introduction in their own market ahead of their competitors. Seeking strategic alliances with suitable Chinese manufacturers could create win-win situations.

Local specialities will be more difficult to market outside China, as they are finished products, rather than ingredients. They have specific flavours and therefore require more effort than a simple catching story. In the case of products like the birch wine, these could be marketed as health foods. Novelties such as the turtle snacks and donkey milk will be harder to accept. Having said that, goat's milk and cheese are available in more and more European supermarkets in part to cater for a more culturally diverse population. So who knows, perhaps donkey milk or camel milk will be next?

The adventurous foods can provide a challenging source of ideas for the food industry outside China. Chinese manufacturers are still at the stage of learning how to market their products in non-Chinese regions. Multinational food and beverage makers, however, should regularly scan the latest developments in China for innovative ideas. The combination of the size of the Chinese food industry and the adventurous aspect of Chinese culture makes China the largest test market for novel foods in the world. *IFI*

Eurasia Consult is a consulting firm specialising in the Chinese food industry; www.eurasiaconsult.nl Eurasia and Giract publish a bimonthly bulletin on this industry; www.giract.com/food_industry_news.php

Food for the future

*The rapid development of the food industry provides a huge opportunity for the food additives sector, says **Du He**, vice-secretary general of the China Food Industry Association*

The added value generated by the Chinese food industry during the first half of 2006 was RMB391.17 billion, an increase of 18.5% over the same period of 2005, and 9.7% of the total added value of the Chinese industry. This is a clear indication of the very important position of the food industry in the Chinese economy.

Within the added value of the food industry, the ratio of agricultural by-products was rather high – 38.8%. Especially gratifying was the fact that the production value of the total food industry in this period exceeded RMB1 trillion for the first time, reaching RMB1.155 trillion – 25.9% more than in 2005, and 8% of the production value of the total Chinese industrial sector. The total profit of the food industry was RMB74.976 million, 29.4% of the total industrial profit. The total turnover of the Chinese food industry was RMB1.122175 trillion, 25.02% more than in 2005.

The overall development of the industry has been smooth. Supply and demand were in balance, and the economy has developed steadily. This has not only increased the fiscal income of the state, but has also actively con-

tributed to relieving the burden of the farmers. The food industry of the eastern region has performed very well in all respects, but that of the western and central regions also saw similar growth in market share and profitability. The affect of the food industry on agriculture has been especially prominent. This proves that the development of the food industry is of great importance to the promotion of a socialist countryside.

'With the increase in living standards, Chinese consumers are becoming more demanding about nutrition and this is stimulating demand for nutritional and functional ingredients'

tributed to relieving the burden of the farmers. The food industry of the eastern region has performed very well in all respects, but that of the western and central regions also saw similar growth in market share and profitability. The affect of the food industry on agriculture has been especially prominent. This proves that the development of the food industry is of great importance to the promotion of a socialist countryside.

All this shows that the food industry has been progressing well in 2006, the first year of the 11th five-year-plan. In the dairy

The food additives sector

The rapid developments in the food industry have created opportunities for the food additives sector. As food additives are the soul of the food industry, I always keep a keen eye on their developments. Although the industry set off rather late, its development from scratch to a mature industry has exceeded the average development of other industries. Its prospects are excellent.

China produced a total of 3.79 million tonnes of food additives in 2005. When we add raw materials like starch, and syrups, the volume will be tens of millions tonnes. Our association also hopes to actively contribute to the development of this lucrative sector.

The Chinese food additives industry has already gained some influence on the global market, exporting to more than 100 countries. This shows that the industry has reached a certain level of technology and quality. However, on the whole, our food

industry, a number of companies have added yoghurt fortified with probiotics and various types of cheese to their products. The meat sector has witnessed a continuous renewal of products, resulting in an ever richer product range.

Secondly, learn from the developed countries, like the USA, France, Switzerland, Germany, The Netherlands and Japan. Their food additive sectors are rather mature and dominate the greater part of the additives market. Their success should be made useful for the Chinese industry.

Thirdly, concentrate on developing additives that suit the dietary habits of the Chinese; in particular ingredients mixes for traditional Chinese dishes. This will not only increase the standardisation of the Chinese catering industry, but will also create a new growth region for Chinese food ingredients. Simultaneously, with the increase of the living standards, Chinese consumers are becoming more demanding about nutrition. This is stimulating the demand for nutritional and functional ingredients. Another opportunity for growth is to make full use of local resources and develop ingredients with hypolipemic, hypoglycaemic, slimming and cosmetic functions.

Fourthly, it is necessary to increase quality and safety. People see eating as an important activity and therefore safety is a priority in the food industry. If the food industry does not give safety the highest priority, people will lose confidence and the

additive industry is still rather small, low tech and has an incomplete product range. There are large manufacturers of food additives, but not many, and they do not stimulate the small companies, whose development is also unbalanced.

My advice to the food additive industry as follows. First, take care of your positioning in the market – companies need to select appropriate products, based on their own specific resources, people and technology and follow fads, or engage in disorderly competition.

industry will lose the market.

Fifthly, we need to develop new skills and increase the technological level. Hi-tech products from major foreign manufacturers have already entered the Chinese market and others are in the process of entering. The entry of famous, new and hi-tech foreign products is a good route for the internationalisation of the Chinese industry. It is a challenge for us, as well as an opportunity. Therefore we must sustain our development. We should improve our technology, and not only imitate. Moreover, we need to

Du He: "Food additives are the soul of the food industry"

'If the food industry does not give safety the highest priority, people will lose confidence and the industry will lose the market'

encourage large enterprises to increase their scale and small enterprises to co-operate. National flagship enterprises should be formed through acquisition and reorganisation. Apart from that, enterprise also needs to become more brand aware and develop their own brands and intellectual property.

Sixthly, the introduction and promotion of food additives should be broadened. The understanding of food additives among Chinese consumers is incomplete and there even is serious bias. We should mobilise the Chinese and international industries to actively promote the importance of food additives to the food industry and give consumers the correct knowledge about them, allowing food additives to fulfil their embellishing function in the food industry.

The macro-economic picture

The Chinese food industry will continue to increase its position in Chinese industry. The development of the food industry can not be separated from that of the entire Chinese economy; they are progressing in tandem. The Chinese GDP has been growing rapidly during the past few years. Investment is overheated and growth excessive. This has already aroused the attention of the State Council (the Chinese cabinet).

With regard for macro-control, investment may become more prudent. The current trend is to consolidate the development of existing resources and strengths, to bring into play China's strength as an agricultural nation with rich agricultural and human resources, to stress the processing of agricultural by-products and increase their value, and to increase the food production chain. In the light of building a new socialist countryside, we need to strive for growth through sustained technological development, to improve the countryside through supporting the growth of key agricultural enterprises. Then, we can have faith in the development of the Chinese food industry during the 11th five-year-plan. IFI



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CMP Information is a division of United Business Media which has its headquarters in London, UK.

The office in the Netherlands is the organiser of the world leading Hi, Ni and Fi, CPhI, ICSE and Informex, series of food and pharmaceutical ingredients trade shows. The Dutch office also publishes International Food Ingredients Magazine and organises related conference activities.

CALENDAR OF EVENTS 2007/2008

-  **Fi Asia-China**
15-17 March 2007 Shanghai, China
-  **Food ingredients South America**
7-9 August 2007 São Paulo, Brazil
-  **Fi Asia**
26-28 September 2007 Bangkok, Thailand
-  **Fi India**
September - October 2007 Mumbai, India
-  **Fi Europe**
30 October - 1 November 2007 London, United Kingdom
-  **Ni**
30 October - 1 November 2007 London, United Kingdom
-  **Fi Asia-China**
March 2008 Shanghai, China
-  **FiCEE**
3-5 June 2008 Warsaw, Poland
-  **Hi Europe**
11-13 November 2008 Paris, France
-  **Ni**
11-13 November 2008 Paris, France
-   Pavilions organised alongside these events

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Where the most important ingredient is your business





As China wakes up to the health benefits of dairy products and grows increasingly prosperous, the Chinese dairy industry is booming. **Peter Peverelli** reports

The white revolution

People who consider the Chinese a non-dairy consuming nation should know that the per capita consumption of dairy products among China's urban population in 2005 was 25kg. This figure is low in comparison with that of most developed nations. However, compared to the 19kg of 2004, it represents an increase of more than 30% in a single year. This increase is in marked contrast to the stagnant situation of the dairy industry in Europe. So, what are the mechanisms driving China's White Revolution?

From periphery to booming industry

● Imperial to modern

Until the early 1990s, China was not really a dairy consuming nation, with a per capita below 10kg. This was usually attributed to the fact that Chinese didn't drinking milk themselves and had little contact with nations that consumed dairy products. While the former is apparently true, the latter certainly is not.

Dairy products were a major element in the diets of a number of ethnic groups on the northern and western borders of China, in particular the Mongolians. The ruling houses of two Chinese dynasties, Yuan (Mongolian) and Qing (Manchu), con-



Booming: the Chinese dairy industry

sumed dairy products. And even though the ethnic Chinese themselves were not that interested in milk, they were aware of dairy products and regarded them as 'fancy', as part of the imperial cuisine. When Europeans and Americans started living in China, they brought their dairy-based cuisines with them. Chinese in regions with a high number of residents from Western

origin, in particular Shanghai and Guangzhou, started to regard dairy products as 'modern', even as one of the driving forces of the success of Western technology. In turn, they started to incorporate milk and cream into their traditional cuisines.

● Early dairy processing

The first really indigenous Chinese dairy company was Baihao, founded by Wu Baixiang in the early 1920s in Wenzhou, south of Shanghai. It produced sweetened condensed milk, one of the earliest dairy-based ingredients in Chinese cuisine.

These trends developed extremely slowly, due to the lack of sufficient raw milk and milk processing capacity, rather than a dislike of dairy products. The main obstacle for a rapid development of an indigenous dairy industry in China was the political environment. The Japanese invasion of China started soon after Baixiang's investment and lasted until 1945. Almost immediately after that, the civil war between the Nationalists and the Communists caused further delays. After the establishment of the People's Republic of China in 1949, consecutive political upheavals, cumulating in the Cultural Revolution (1966-1976) again prevented this sector from making serious advances.

Seen from this perspective, it is not so surprising that, after a decade of economic

reforms, the Chinese were ready for a great leap forward in dairy processing by the early 1990s. China produced 13,104,000 tonnes of total dairy products in 2005, an increase of 20% compared to 2004.

Drivers for change

There are three important drivers responsible for the recent growth in dairy consumption in China: changes in consumer perceptions of dairy products; new food-purchasing behaviour; and dairy product distribution and marketing.

● Perception of milk

Historically, the majority of Chinese regarded milk as a nutrition supplement, particularly for infants and the elderly. It was not perceived as a part of the regular daily diet. These traditional perceptions are being challenged on several fronts. Recent changes in government guidelines for food and nutrition include regular milk consumption. A survey conducted in 2001, found that more than 25% of sample households in Beijing, Shanghai, and Guangzhou reported that a healthcare professional had recommended regular milk consumption. This aspect has been reinforced by a strong statement from China's new PM, Wen Jiabao, saying that drinking one glass of milk per day would strengthen the entire Chinese nation. Finally, the adoption of school milk programmes in several large cities since 2000 sent a clear message to families with young children that milk consumption is important for health.

A different, though related, topic is the high occurrence of calcium deficiency in the Chinese population. Among children the rate can be as high as 40% in certain

'Young, educated, and high-salaried consumers shop less frequently, eat outside the home more often and frequently purchase processed and packaged foods'

regions. Among the elderly, deficiency rates of 15–20% are reported. Calcium deficiency has grown into a general concern among Chinese consumers, who spend several billion RMB per year on calcium supplements. Increasing the consumption of dairy products is regarded by the authorities as a cheap and healthy way to increasing the calcium intake among the population.

Raw milk production in the first half of 2006; national volumes, main regions (million tonnes) and growth compared with the same period in 2005

	Volume	Growth
Total milk	15.27	18.8%
Cow milk	14.59	18.3%
Inner Mongolia	3.52	20%
Heilongjiang	2.21	11.1%
Hebei	2.14	20%

Per capita consumption of major dairy products (kg/month) during the first five months of 2006 and growth compared with the same period in 2005

	Volume	Growth
Liquid milk	1.54	2.7%
Yoghurt	0.28	19.5%
Milk powder	0.05	-4.2%

Imports of dairy products during the first half year of 2006 (tonnes) and growth compared with the same period in 2005

	Volume	Growth
Total	193 322	10.29%
Milk powder*	83 532	28.63%
Whey powder	97 225.15	-0.49%

*officially: product code 0402, or 'Milk and cream, concentrated or containing added sugar or other sweetening matter'. This verbose term is actually mainly milk powders in various formulations.

Exports of dairy products during the first half year of 2006 (tonnes) and growth compared with the same period in 2005

	Volume	Growth
Total	36 580	19.65%
Milk powder	17 677.49	25.52%
Liquid milk	17 784.70	14.46%

Most of these volumes are exported to Hong Kong and Macao.

● Food purchasing behaviour

Chinese consumers have more money to spend. This growing prosperity also is gradually changing lifestyles, and is affecting purchasing behaviour of consumers. Social policies to slow population growth

educated, and high-salaried consumers shop less frequently, eat outside the home more often and frequently purchase processed and packaged foods. Most dairy products require refrigeration until they are consumed and greater-refrigerator

have reduced the number of children in modern urban families. With the increase in the pace of life, the cost of spending time shopping and preparing food has risen, and an increasing number of China's households are willing to pay for prepared foods and packaging that increases shelf-life and reduces shopping frequency. Young,



'There are three drivers responsible for the growth in dairy consumption in China: changes in consumer perceptions of dairy products; new food-purchasing behaviour; and dairy product distribution and marketing'

ownership is having a positive impact on dairy product consumption.

● Distribution

In the old days, pasteurised milk was principally marketed through home distribution networks and specialised milk stores operated by the local state-operated Milk Company. This situation began to change in the early 1990s when several of the old milk companies were transformed into commercial enterprises, and foreign dairy processors began investing in China. Until then milk and other dairy products were not marketed as brand commodities, sold through a variety of channels. Where local markets used to be monopolised by the local milk company, competition between national, regional and foreign brands was introduced nationwide. Finally, the arrival and rapid expansion of supermarkets, including a number of multinational companies like Carrefour, offered excellent sales outlets for the new dairy companies.

Ingredients

Where there is food, there are ingredients, and the developments in the dairy industry are making China a lucrative market for dairy-based ingredients and ingredients used in dairy processing.

● Milk powder

The demand for raw milk is larger in China than can be fulfilled by the domestic production; 28.64 million tonnes in 2005. The country has to import large volumes of milk powder each year, that are reconstituted and further processed into drinking milk and yoghurt. The baking industry is another consumer of milk powder. China imported 83,532 tonnes of various types of milk powder during the first half of 2006.

● Whey powder

Even before the booming developments, China was an important importer of dairy ingredients. This list of imported dairy ingredients is topped by demineralised whey powder, the main ingredient for infant formulae. Each year, some 16 million babies are born in China, so demand is huge and virtually all of it has to be imported. Large quantities of other

whey products are also imported, mainly as ingredients for animal feed.

● Cultures

Fermentation already was an important element in traditional Chinese food processing. With growing popularity of dairy products, China has an expanding market for

domestic cheese volume is estimated to be around 7,000 tonnes. A number of projects are in various stages of development, all hoping to cash in on the influx of cheese-eating foreigners during and around the 2008 Olympic Games in Beijing and the 2010 World Expo in Shanghai.



Milk, glorious milk: China is becoming a lucrative market for dairy-based ingredients

dairy cultures. This includes traditional cultures for the production of yoghurt or cheese and also cultures that add functionality to dairy products like *bifidus*. Recently dairy drinks with *bifidus* cultures have become extremely popular in China. This has resulted in a fierce competition between the two key players in the Chinese dairy industry – Mengniu and Yili – who have signed exclusive strategic partnerships with Chr. Hansen and Valio for the use of their respective dairy cultures. Other companies are also trying to follow suit.

Cheese is still in its infancy in China, but due to the increasing influence of foreign convenience foods like pizza, the demand is increasing. The China Dairy Association has conducted a survey recently, which revealed that China produced 1,240 tonnes of industrial cheese in 2004. Together with cheese produced in farms, individual households and small factories, the total

● The knock-on effect

The astonishing development of the Chinese dairy industry is also stimulating the demand for other ingredients, specially formulated for this application area. An interesting example is the increase in the production of yoghurt and other dairy-based desserts, which has created an interest in suitable preservatives. The sudden boom in the domestic production of Natamycin and Nisin seems to be at least partly related to the use of these microbial preservatives in dairy products. This is an illustrative example of how developments in one sector can induce similar developments in another sector, bringing the entire Chinese food industry several steps closer to full partnership with the global nutrition industry. *IFI* www.eurasiaconsult.nl http://www.giract.com/food_industry_news.php

Show time in Shanghai

In advance of Fi Asia-China, at the Shanghai New International Expo Centre on 15–17 March 2007, we preview a selection of the products and services international exhibitors will be bringing to the show

Armfield

(stand A25) will be exhibiting the latest version of its FT74X miniature-scale HTST/UHT (high temperature short time/ultra high temperature) processing system. The FT74X can process as much as 20 litres per hour of product and is a valuable tool for developing new products



Armfield

and manufacturing techniques. It can be configured as either a plate or a tubular heat exchanger, depending on the product being processed.

Two stage cooling has been added, enabling product outlet temperatures of less than 5°C to be reached in conjunction with the Armfield FT63 laboratory chiller, particularly useful where cold product storage is required.

Static mixer elements are an option for the tubular exchanger (FT74-20) to improve heat transfer in both heating and cooling tubes, reducing problems of burn-on with difficult products and allowing lower outlet temperatures to be achieved.

Beijing Milky Way

(stand B56) was founded in 1995, and based on its dairy technical advantage, has become one of the biggest dairy ingredients supplier in China. Milky Way imports from US, Canada, EU, Australia and New Zealand. Its sales teams are all food-science or dairy-engineering graduates.

Milky Way imported more than 20,000 tonnes of dairy ingredients in 2005, and Beijing Milky Way has warehouses in Beijing, Tianjin, Shanghai and Ningbo. The company's main products include whey protein, whey powders, lactose, whole milk powders, skimmed milk powders,

anhydrous milk fat, cheese and butters, colostrums powder and lactoferrin.

The company also collaborates with client R&D departments, helping them with product development, as well as sharing resources with China Agriculture University's Food and Biology Science College.

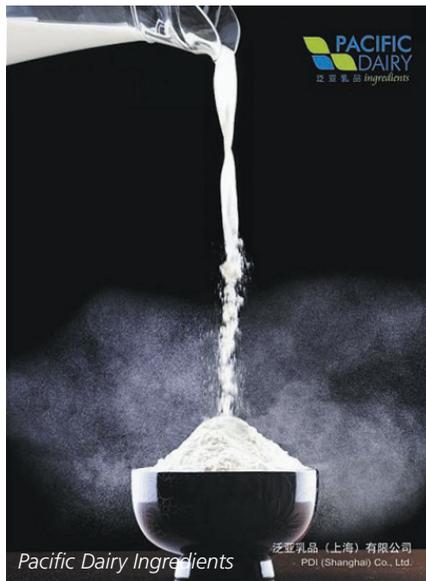
Gelita

(stand A35) has a pure collagen product for functional foods and food supplements. It can replace sugar and fat in foodstuffs with pure protein without loss of taste, creating modern products with a low glycaemic index, high protein content and reduced calorie count. Also, due to its amino acid composition, collagen hydrolysate contributes to good skin, healthy hair and nails, and joints.

Kancor Ingredients

(stand C19) has over 30 years of experience delivering high-quality ingredients including spice oleoresins, mints, essential oils, herbal extracts, natural isolates, botanicals, nutraceuticals, natural colours, customised solutions and value-for-money to a global clientele.

The ingredients are designed to bring out the best in customer products, enhancing value and delivering visual appeal – be it



taste, mouthfeel, flavour, colour, convenience, nutrition, fragrance or combinations. Kancor's natural ingredients are designed for a wide spectrum of applications in food, healthcare and personal care products.

Pacific Dairy Ingredients

(stand A60) has been operating in the Chinese dairy industry since 1996. It is part of the Hoogwegt Group, with a worldwide presence, moving 100,000 tonnes of dairy products per year, and is well-positioned to provide clients with reliable market information. Through its offices and warehouses at four locations in China, it has established an excellent logistics network with professional staff throughout the country. In each of its offices, sales staff are supported by food technicians to provide the latest dairy ingredient technologies.

It continues to introduce new products for health food supplement applications and infant formula.

PB Gelatins

(stand B92) is a leading manufacturer of gelatins for use in food-, pharma- and photo-applications. The company has excellent technical support staff available to help customers in applications such as low-carbohydrate, high-protein and low-GI products. Besides its multi-functionality

and non-allergenicity, its gelatin is a natural, easily digestible protein, free of fat, cholesterol and carbohydrates; it has a beneficial effect on the skeleton.

In addition to its traditional gelatin products, PB Gelatins provides high-quality specialty products: two cold soluble gelatins – Cryogel and Instagel – which do not require heat to dissolve or activate the gelatin; and two collagen hydrolysates – SolugeL and Polypro – well suited to protein beverages, energy bars and dietary supplements.

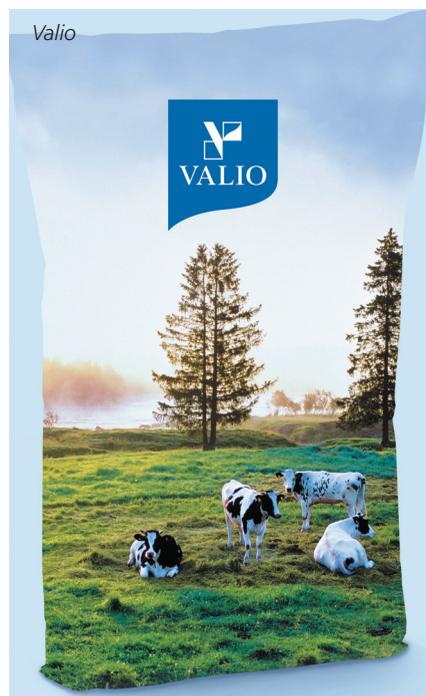
OK Kosher Certification

(stand A90) provides Kosher supervision to companies around the globe. With its team of professional Kosher experts and knowledge of food technology, the company aims to be leader in the field of Kosher supervision. Despite its hi-tech operations, it offers old-fashioned personal attention to clients. For many consumers, OK Kosher Certification serves as a mark of quality and integrity.

Valio

(stand A42) was established in 1905. Today it is Finland's biggest dairy company and offers dairy ingredients that originate from Finland. Pure milk combined with modern technologies and Valio's long experience ensures that its ingredients are of excellent

quality. In China, Valio offers a product range of demineralised whey powders with the Valio Demi brand name, milk powders, butter and cheese, and is building up a reputation among Chinese main dairy companies. The company also licenses functional ingredients like probiotics LGG and aims to license first-class technologies like lactose-free milk technology to the customers.



Fi Asia-China 2007 Conference

15 and 17 March 2007

Shanghai New International Exhibition Centre, Shanghai Pudong, China



organised in partnership with IuFoST



SAFE AND NATURAL FOOD INGREDIENTS

Day 1, 15 March

Food Safety

11:00–13:00

Management of microbial food safety

- Keynote presentation
Title to be confirmed
Prof Colin Dennis, director-general, CCFRA, UK
- Harmonisation of Chinese food microbiological standards with international standards
Prof Liu Xiumei, China CDC, China
- Food safety management programme for the food industry
Prof Shi Xianming
- Presentation on antimicrobials
- FiAC exhibitor presentations

14:00–16:00

Management of chemical food safety

- Keynote presentation
Prof David Lineback
- *Prof Wang, Dean, School of Food Science, Shanghai Fishery University*
- *Prof Hu Xiaosong, School of Food Science and Nutritional Engineering, China Agricultural University*
- FiAC exhibitor presentations

Day 2, 17 March

Natural ingredients

11:00–13:00

Functional foods and nutraceuticals

- Keynote presentation
International developments in functional foods and nutraceuticals
Prof Fereidoon Shahidi, Memorial University of Newfoundland, USA
- Functional food development in China
Prof Yang Gongming, South China Agricultural University, China
- Natural ingredients with functional properties
Luis Fernandez, Cargill R&D Centre Europe, Belgium
- FiAC exhibitor presentations

11:00–13:00

Organic foods

- Keynote presentation
- Regulations and certification programmes for 'green food' in China
Speaker from Chinese Green Food Development Centre, China
- Organic foods accreditation
Dr Sheng Jiping, School of Food Science and Nutritional Engineering, China Agricultural University, China
- FiAC exhibitor presentations



Dear exhibitors and visitors

On behalf of CMP Information and Shanghai CMP Sinoexpo, we would like to thank you for your continued support. We hope that our Food ingredients and Health ingredients events have helped make your businesses stronger and more profitable, and that the opportunities continue to flourish.

Fi Asia-China 2007 will take place on 15–17 March 2007, offering exhibitors and visitors even more than ever before. As well as the exhibition, comprising local and international exhibitors, we will be hosting a conference organised in partnership with the International Union of Food Science and Technology (IuFoST). This will address trends and developments in 'Safe and Natural Food Ingredients', enhancing our Natural ingredients and Health ingredients pavilions which were launched at the last event with over 1,850sqm dedicated to these specific areas. For Chinese manufacturers, we will host a short conference focusing on the standardisation of rules and regulations for food export from China – currently a very hot topic.

The increased number of Chinese companies participating in the food ingredients portfolio of events worldwide, and indeed at Hi Europe 2006, demonstrates the growth and importance of the food ingredients industry in China and the demand for these products around the world. At Fi Asia-China last year, over 14,500 visitors came to see exactly what was on offer from a mixture of Chinese and international ingredients suppliers: in 2007 we aim to offer even more.

We invite you to attend Fi Asia-China 2007 to see, smell and taste the wealth of food ingredients and services on offer, and the team looks forward to welcoming you there.



Kind regards

Haf Cennydd
Event Manager Emerging Markets
CMP Information

Stella Zhong
Senior Manager
Shanghai CMP Sinoexpo

Company Name

AAFUD Industry (ZhuHai) Co., Ltd.
Abena Foodstuff Co., Ltd
Anhui BBKA Imp. & Exp. Co., Ltd
Anhui Redstar Pharmaceutical Co., Ltd
Anhui Technology Imp. & Exp. Co.,Ltd
Anhui Wanflavor Foods Co., Ltd
Armfield Limited
Balantyne Foods Pty Ltd
Bayerische Milchindustrie EG
Beijing Forbest Trade Co., Ltd
Beijing General Research Institute of Mining & Metallurgy
Beijing Milky Way Trade Corp.
Beijing Oriental Rada Biotech Co., Ltd
Bright Dairy Ingredient Division
Cangzhou Haiyuan Biological Products Co., Ltd
CGOG Tech (Tianjin) Bioengineering Co., Ltd
ChaucerFoods (Qingdao) Co.,Ltd
Chengdu Root Industry (Food) Co., Ltd
Chinescape International Co., Ltd
Cotion Ltd
Dalian FTZ New Ball International Industry & Trade Co., Ltd
Dalian Hanovo Foods Co.,Ltd
Dawang Group Protein Food Co., Ltd
Dezhou Ruikang Food Co., Ltd
Dongguan Super Success Pharmaceutical Co., Ltd.
Dongying Wonderful Vegetable Protein Science and Technology Co., Ltd
Fadiya Pasteurization & Food Processing
Fenchem Enterprises Ltd
Fluko Equipment Shanghai Co., Ltd
Foodchem International Corporation
Fulrich Food & Spice Ingredients (Anhui) Co., Ltd
Fuzhou Corona Science & Technology Development Co.,Ltd
Gansu Hualing Milk Products Group
Gansu Organic Food Co., Ltd
Gansu Tianyuan Protein Co., Ltd
GELITA AG
Grown Protein Group Company
Guangzhou Weiya Economic Trading Co., Ltd
Guangzhou Xinyou Packaging Equipment Co., Ltd.
Gushen Biological Technology Group Co., Ltd
Hainan Groupforce Pharmaceutical Co., Ltd
Hainan Super Biotech Co., Ltd
Hangzhou Boking Biochemical Engineering Co.,Ltd
Hangzhou Mount-up Biotechnology Co., Ltd
Harbin Hi-Tech Soybean Food Co., Ltd
Harbin Liming Plant Protein Technology Co., Ltd
Hebei Donghua Chemical General Company
Hebei Jihang (Group) Pharmacy
Hefei Light Industrial Products Arts & Crafts Imp. & Exp. Co., Ltd
Hefei Top Foods Co.,Ltd
Henan Eastar Chemicals Co., Ltd
Henan Tianguan Enterprise Group Co., Ltd
Heze Roc Imp. & Exp. Co., Ltd
Hoogwegt International BV
Huanan Dehua Perfume Co., Ltd
Huakang Natural Color Factory of Guixi Yingtan City
Hugestone Enterprise Co., Ltd
Huisong Pharmaceuticals
Huzhou N.B.C. Biological Material Co., Ltd
Jiali Bio Group Limited
Jiangsu Spring Fruit Biological Products Co., Ltd
Jiangxi CongCongLe Food Industry Co., Ltd
Jiangxi Dexing Parchn Sodium Isovitamin C Co., Ltd
Jiangxi Lukang Natural Products Co., Ltd
Jiangyin Baoli Machinery Co., Ltd
Jiangyin Hongda Powder Equipment Co., Ltd
Jiaozuo Zhongke Vegetable Protein Co.,Ltd
Jinan Saixin Inflating Machinery Co., Ltd
Kaifeng Xinghua Fine Chemical Factory
Kancor Flavours and Extracts Ltd
Lianyungang Taida Fine Chemical Co., Ltd
Lianyungang Zhongyi Fine Chemical Co., Ltd
Liaoning Red Raspberry Industry Co., Ltd
Linxia Huan Biological Products Limited Company
Linyi Native Produce & Animal By-Products VE Group Co., Ltd
Linyi Van Science And Technique Co., Ltd
Longcom Enterprise Limited
Lorcha Chemicals
Meng Zhou Tailie Co., Ltd
MengZhou Huaxing Biochemistry Co., Ltd.
Milbo SpA
Mintel International
Nantong Acetic Acid Chemical Co., Ltd
Nantong Sun-Green Bio-Tech Co., Ltd
Ningbo Create Biological Project Co., Ltd
Ningbo Feida Food Co., Ltd
Ningbo Jiangdong Tianteng Creature Products Co., Ltd
Ningbo Wanglong Group Co., Ltd
Ningxia Lihe Food Co., Ltd
Novamat Bioresources Co, Ltd
OK Kosher Certification
Orthodox Union
Pacific Dairy Ingredients (Shanghai) Co.
PB Gelatins
Pingdingshan City Yubaoyuan Pharmaceutical Co., Ltd
Pingdingshan Tianyu Vegetable Protein Co., Ltd
Precisa International (Shanghai) Co.,Ltd
Qingdao FTZ United International Inc.
Qingdao FTZ United International, Inc
Qingdao Heshuo Technology Industry and Trading Co., Ltd
Qingdao Inteks Bio-technology Co.,Ltd
Qingdao Wanlin Food Co., Ltd

Company Name

Qingdao Waimai Foods Co., Ltd
Qinghai Comped Biological Preparation Co.,Ltd
Rizhao Jiejing Ocean Biotechnology Development Co.,Ltd
Rui'an Lvzhou Biological Science and Technology Co., Ltd
Ruijiang Industry
RZBC Co., Ltd
Shaanxi Huike Botanical Development Co., Ltd
Shaanxi Jiahe Phytochem Co., Ltd
Shandong Ehua Health Food Co., Ltd
Shandong Ruiju Biochemical Co., Ltd.
Shandong Sinogory Foreign Trade Co., Ltd
Shandong TTCA Biochemistry Co., Ltd
Shandong Yifu Imp. & Exp. Co., Ltd
Shandong Duqing Inc.
Shandong Yuwang Industrial Co., Ltd
Shandong Yuxin Soybean Protein Co., Ltd
Shanghai Chuanbang Medicine Pulverization Equipment Factory
Shanghai Cont Environment Protection Technology Company
Shanghai Donghus High Pressure Homogeneous Pump Works
Shanghai Foreversun Company Limited
Shanghai Geseen Packaging Machinery Co., Ltd
Shanghai Goldrich Trading Co., Ltd
Shanghai Guannan Imp & Exp Co., Ltd
Shanghai Haoxiang Food Co., Ltd.
Shanghai Huiwen Biotech Co.,Ltd
Shanghai Jinshan Oil & Food Stuffs Co.,Ltd
Shanghai Luckystar Additives Industries, Inc.
Shanghai Nanhua Transducer Manufacture Co., Ltd
Shanghai Oushang Packing Machinery Co., Ltd
Shanghai Passions International Co., Ltd
Shanghai Peceop Intemasional Co.,Ltd
Shanghai Q-Full International Co., Ltd
Shanghai Richfield Foodstuffs Industry Co., Ltd
Shanghai Ritan Trading Co., Ltd
Shanghai Ruipai Machinery Co., Ltd
Shanghai Sherlong Amino Acid Factory
Shanghai Shihao Flavor & Fragrance Co., Ltd
Shanghai Tianxiang & Chantai Pharmaceutical Machinery Co., Ltd
Shanghai Triowin Tech Co., Ltd
Shanghai Trustin Chemical Co.,Ltd
Shanghai Universal Resources Imp & Exp Co., Ltd
Shanghai Vita Biotech Co., Ltd
Shanghai Waseta International Trading Co., Ltd
Shanghai Yaxiang Iron Inspection Instrument Co., Ltd
Shanghai Youngsun Foods Co., Ltd
Shanxi Tianrun Phytochemical Co.,Ltd
Shantou Hongqiao Packaging Industry Co.,Ltd
Sheli Food (Shenzhen) Co., Ltd
Shenzhen NLL Natural Food Ingredients Co., Ltd
Shijiazhuang Green Carbon Products Co., Ltd
Shijiazhuang Haitian Fine Chemicals Co.,Ltd
Shintree (Qingdao) Co.,Ltd
Shouxin (Shanghai) Co., Ltd
Sicna Srl
Sino-Alga Biotechnology Ltd
Sinobright Import & Export Co., Ltd
Sinoinstrument Co.,Ltd
Sinosweet Co.,Ltd
Suhua Golden Dragon Grease Limited Liability Company
Suqian Yitong Lasier Ice-cream Ingredient Co., Ltd
Suzhou Everfortune Co.,Ltd
Suzhou Everfortune Imp. & Exp. Co., Ltd
Suzhou Jiahe Foods Industry Co., LTD
Taixing Silversun Food Co.,Ltd
Taixing Yiming Fine Chemical Co., Ltd
Taiyo Kagaku China Co., Ltd
Taizhou Mingguang Food Additives Co., Ltd
Tianjin Ecobio Biotech Co.,Ltd
Tianjin Huarong Yugong Trading Co., Ltd
Tianjin Jianfeng Natural Product R & D Co., Ltd
Trustchem Co.,Ltd
Valio Ltd
Wachsen Industry Co., Ltd
Weifang Ensign Industry Co., Ltd
Weifang Zhenxing Chengcheng Fine Chemical Co., Ltd
Weisheng Pharmaceutical (Shijiazhuang) Co., Ltd
Wuhan AMTH Biotechnology Co.,Ltd
Wuhan Buyour Amino Acid Co.,Ltd
Wuhan Fuxing Biotechnology Pharmaceutical Co., Ltd.
Wuhan Kaidi Fine Chemical Industrial Co.,Ltd
Wuxi Century Bio-pharmaceutical Co., Ltd
Wuxi Haming Drying Machine Co., Ltd
Xinghua Dingneng Foods Co., Ltd
Xinghua Lianfu Food Co., Ltd
Xinghua MeiQuan Food Co., Ltd
Yancheng Hengding Foreign Trade Co., Ltd
Yancheng Jingwei International Group Co., Ltd
Yangjiang Ocean Food Co., Ltd.
Yangzhou Chemical Imp. & Exp. Co., Ltd
Yixing Biology Engineer Company
Yixing Jiangshan Chemical Factory
Yixing-Union Biochemical Co., Ltd.
YP Bio-tech Co., Ltd
Yuanfu Industry & Commerce Co., Ltd
Yucheng Jintian Biological Technology Co., Ltd
Zhejiang Bossen Ingredients Co., Ltd
Zhejiang Garden Biochemical High-Tech Stock Co., Ltd
Zhejiang Jianshan Chengda Pharm & Chem Co., Ltd
Zhejiang Orient Tea Development Co., Ltd
Zhejiang Shaoxing Dongling Health Food Co., Ltd
Zhejiang Worldbest Pharmaceuticals Science Technic Development Co., Ltd
Zibo Hualong Pharmacy Co., Ltd

Nature cure

*The Chinese market for herbal extracts is going from strength to strength, say **Cui Bin**, of the China Chamber of Commerce of Medicines & Health Products Importers and Exporters*

How large is the current production of herbal extracts in China?

It is difficult to provide exact statistics for the market as reliable data are still scarce in this emerging industry. A total of 1.6 million tonnes of traditional Chinese medicine (TCM) is traded each year, and 7–10% of that volume is used for the production of extracts. More than 500 companies are engaged in the production of herbal extracts in China, including 200 specialised manufacturers.

Are herbal extracts an attractive export product?

Yes, they certainly are – in fact 90% of the production is exported. The main import regions of Chinese herbal extracts are the US, Japan and South Korea. Export earnings have increased from US\$97 million in 2000 to US\$293 million in 2005. The earnings over the first half of 2006 are already US\$226 million.

Development of the export of Chinese herbal extracts		
(USD million and %)		
Year	Export	growth
2000	97	—
2001	132	36.08
2002	145	9.85
2003	173	19.31
2004	223	28.90
2005	293	31.39

Is the quality control of traditional Chinese medicine production comparable to that of synthetic pharmaceuticals?

Quality control in TCM production is still not as strict as that in Western medicines, but the situation is rapidly improving. A number of producers are operating in conformance with GMP and ISO; some have also obtained Kosher certification. Companies are also

investing in modern technology and up-to-date analytical equipment and are paying attention to the prevention of pollution. Now, for example, offal is often supplied to local farmers as organic fertiliser.

Is the production of herbal extracts evenly divided in China?

Production takes place in all regions, as each area has its typical herbs. However, there are five core regions: Shaanxi – 50 main manufacturers are located in this province, and two of them are executive members of our Herbal Extracts Branch; Hunan – this region is most advanced in the standardisation of herbal extracts; Zhejiang is an important region for the production of TCM, and therefore also for their extracts; Sichuan – this province is sometimes referred to as Medicine Valley, due to its rich variety of medicinal herbs; and Beijing-Tianjin – this urban region does not have a high concentration of producers, but it is the home of a few of the larger companies. IFI



The China Chamber of Commerce of Medicines and Health Product Importers & Exporters (CCCMHPIE) was established in May 1989 in an effort to boost the development of foreign trade in medicinal products. It is one of five similar chambers directly operating under the Chinese Ministry of Trade. It is the main trade association for the pharmaceutical and health product industry in China with more than 1,400 member enterprises. Its tasks include trade promotion for its members and assisting member organisations with legal problems abroad, like registration of products and anti-dumping measures. The CCCMHPIE organisation includes an exhibition department that organises trade fairs and Chinese pavilions on foreign exhibitions.