MULTICLIENT STUDY

Business Review

Bakery Ingredients & Intermediates

Market Study - Supply/Demand & Competitive Strengths

China

2015-2020

Published June 2016

Sectors



Bread
Morning Goods
Frozen Goods



Market



China

GIRACT
Geneva, Switzerland

Transnational Business Research & Consultancy

Introduction



Bakery ingredients, intermediates, pre-mixes and mixes have long been used in developed markets in North America and in Europe. Food production in major markets in Asia-Pacific is rapidly becoming industrialised. This change is driving a rapid increase in demand for easy-to-use solutions and is opening up major new markets for bakery ingredients and intermediates.

China is a huge volume bakery market that has rapidly developed and is now technologically quite advanced in adoption and implementation of industrial baking methods including frozen technologies. The extent of geographic spread, concentration of western style baked goods in specific regions and heterogeneity of eating habits are factors that influence the growth of this interesting market. China is also a large manufacturer of single ingredients such as enzymes and emulsifiers which also form part of intermediates. Hence the complexity of tracking ingredients through the bakery value chain is increased.

Giract, the international ingredients and technologies specialist, has successfully carried market studies of bakery mix/improver supply and demand in North America and Europe in 2002, 2006/7 and again in 2013.

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Introduction

In these studies, Giract identified the market size, shape, and opportunities for bakery intermediates by drawing on in-depth interviews with key producers and a wide range of user companies.

Giract now applied a similar approach to determine the size and shape of the market for supply and demand of bakery ingredients in China, as part of a series of studies on key markets in the Asia-Pacific region.

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Objectives of this study

Bakery Ingredients and Intermediates - Market Study



- A review of current and potential products, their specifications, applications
- An analysis of the producers, their market shares, and exports
- An appreciation of "why" and "why not" concerning the key products based on interviews with producers and retailers/food service users
- Understanding and differentiating frozen technology adoption by channel and end-use type
- An identification of the current (2015) market size by product group/sector and forecasts of volumes for 2020

GIRACT

Geneva, Switzerland

Subscription

This unique study examines Bakery Ingredients & intermediates market sizing supply,/demand & trends across China.

SCOPE

Products



- **Improvers:** Flour correctors/improvers with emulsifiers, enzymes, preservatives, etc.
- **Pre-mixes:** Ready-to-use mixes with part (typically 50-80%) flour addition
- **Mixes:** Ready-to-use complete mixes
- **Sourdough:** Ready-to use starters and mixes
- **Margarines:** Vegetable fats for use in baked-goods
- **Enzymes:** Bakery enzymes such as alpha-amylase, glucose oxidase or lipase
- **Emulsifiers:** Dough strengtheners and dough softeners

Markets



- **China**

End use Sectors



Bread: Volume and flat breads falling under soft and crusty categories; Viennoiserie and fried goods; Frozen goods: Frozen dough (2 types – prefermented frozen, unfermented frozen) and baked frozen (2 types – fully baked frozen, par baked frozen)

STUDY HIGHLIGHT

Programme

Following an initial review of Giract in-house data, interviews with selected key players (producers, traders, end-users) have been carried out in order to derive real understanding of the market forces

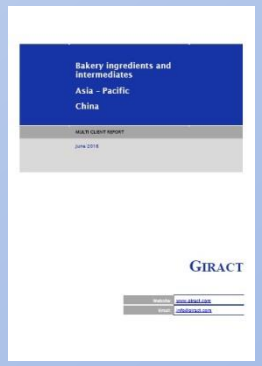
Current: 2015
Forecast: 2020

Timescale



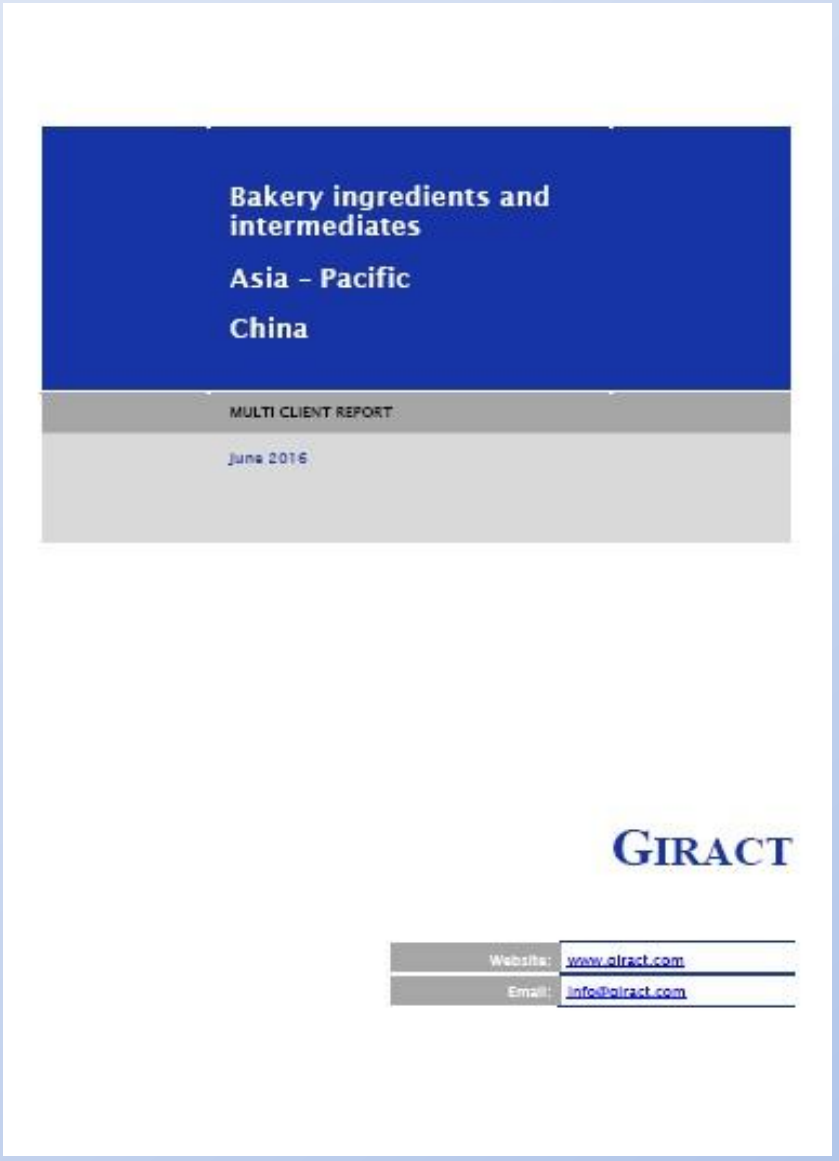
WHAT DO YOU GET?

1. **Electronic Copy** of report in searchable PDF format
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3. Report published in **June 2016**

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Bakery ingredients and intermediates

Asia – Pacific

China

MULTI CLIENT REPORT

June 2016

GIRACT

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1. INTRODUCTION

1.1. SCOPE

1.1.1. PRODUCTS

Improvers: flour correctors/improvers with emulsifiers, enzymes, preservatives, etc. Dosed upto 5% of the weight of the final dough. May contain flour as a filler.

Pre-mixes: ready-to-use mixes with part (typically 50-80%) flour addition. May sometimes not contain flour and have dosage as low as 5-10% depending on the recipe.

Mixes: ready-to-use complete mixes

Sourdough: ready-to use starters and mixes

Margarines: vegetable fats for use baked-goods

Enzymes: bakery enzymes such as alpha-amylase, glucose oxidase or lipase

Emulsifiers: dough strengtheners and dough softeners

1.1.2. END-USE SECTORS

Bread: Volume and flat breads falling under soft and crusty categories

Morning and fried goods: Viennoiserie and fried goods

(Both bread and morning/fried goods also to include semi-finished forms)

Frozen goods: Unfermented frozen, prefermented frozen, parbaked frozen, Fully baked frozen

1.1.3. GEOGRAPHIC

China

1.1.4. TIMESCALE

2015, with forecast to 2020

2. CHINA

2.1. MILLING

Total wheat production in the China in 2015 was estimated at 125 mio tons. Wheat production has declined in 2015 from 126.1 mio tons in 2014.

This has impacted the wheat imports and demand for premium wheat has increased and total wheat imports was about 1.2 mio tons in 2015 from 457 kt in 2014.

Wheat is mainly sourced from Australia, Austria, Belgium, Brazil etc.

However, the wheat exports are expected to remain stable at 1 mio tons in 2015.

Wheat is traditionally exported to North Korea, South Korea, and Hong Kong from China along with Algeria, Angola, Argentina, Armenia, Antigua & Barbuda etc.

About 14.5 kt of wheat is imported for feed and residual purposes.

The Chinese government has set price for average quality wheat irrespective of protein level, which has led to inconsistant quality of wheat. This has also led to increase the demand for premium and specific quality wheat.

China exports over 850 kt of wheat flour per annum and about 50% of flour is destined to Hong Kong.

Total wheat imports in China is likely to remain around 1 mio tons due to the Tariff rate quotas system that China has formed with the WTO and total quota is 9.6 mio tons, in which 90% is reserved for state purchases.

Wheat flour

China's wheat flour industry is by far the largest in the world and grinds 115 mio tons of wheat flour per annum.

Chinese milling industry is fragmented by the large number of relatively small scale companies involved and also by the region of production.

There are over 5,685 wheat flour millers estimated in China.

Total processing capacity of all flour millers is approximately 250 mio tons per annum and the industry is intensely competitive and of overcapacity.

Capacity (tons/day)	Number of Mills
50-150	
150-400	
400-16000	

Data edited

Source: Giract, based on database

Bakery products –Market share 2015

Segments	% share
Bread	
Rolls, Buns, Muffins	
Frozen cakes	
Retail Bakery products	
Other Pastries	

Source: Ciract based on various Chinese bakery publications

Data edited

Bread products – Market share 2015

Categories	2005	2010	2015
Packaged/ industrial bread			
Unpackaged/artisanal bread			
Bread substitutes			
Total bread			

Source: Ciract based on various sources

Data edited

This gives the following flour use pattern by year for comparison on a national product basis:kt

Group	Europroduct	2005	2015	2020
Bread	Breads			
Bread Total				
Non-bread	Biscuits			
	Steamed bread			
	Dumplings			
	Pastries			
Non-bread Total				
Grand Total				

Source: Ciract – based on statistical data from a variety of Chinese bakery publications and projections

Data edited

Major players in the industrial bakery sector are Hangzhou Dingyuan Food, Huajia Foodstuff, Labi Xiaoxin (Fujian) Foods Industrial, Orion Food and Shanghai Christine Foodstuff.

Chinese bread market is highly fragmented and a large portion of the market is occupied by artisanal, small and in-store bakeries.

Key domestic players in the industrial breads are The Garden Company, Beijing holiland and Mankattan Food.

The various laws and standards governing the food industry in China are:

- Food Safety Law of the People's Republic of China
- Measures for the Administration of New Food Additives (Order number 78 of Ministry of Health)
- National Food safety standard for food additives
- (GB 2760-2015)
- Food Safety National Standards for the Usage of Nutritional Enrichment (GB 14880)
- Food Safety National Standards—General Rules for the Labelling of Pre-packaged Foods
- Ministry of Health Notice on the relevant standards for imported food and food additives
- Measures for the supervision, management of quarantine and inspection of the import and export of food additives
- General Rules on Compound Food Additives

2.4. SUPPLY SCENARIO

Availability of ingredients, 2015, China t

Ingredient	Supplies in t
Enzymes	
Emulsifiers	
Improvers	
Premixes	
Mixes	
Sourdough	
Margarine	

Source: ciract, based on analysis

Data edited

The table above cover only the estimates for supply into the specific product types covered.

2.4.1. SUPPLIER MAP

	Supply	Improvers	Pre-mixes	Mixes	Sour dough	Margarines	Enzymes	Emulsifiers
ABF Ingredients	x	x	x		x	x	x	

Sample Report Pages

2.4.2.3 *DAWN FOOD PRODUCTS*

Headquartered in Michigan, Dawn foods inc., was founded in 1920. It has manufacturing facilities and distribution sites throughout Canada, Mexico and Europe. Dawn Foods Europe covers export activities in various regions of the World including Europe (Northern Europe, Southern Europe and Eastern Europe), Africa, Middle-East and Asia Pacific. In China, the company's products are distributed by DKSH China and Jia Xuan Food & Beverage Management. It produces and distributes bakery products and ingredients including mixes, dough, toppings, icings, frozen products and ready-to-bake sweets.

Product type	Brand	Description
Mixes		
Premixes		

Data edited

2.4.2.4 *FUJI OIL CO LTD*

Headquartered in Japan, Fuji Oil Co Ltd was founded in 1950. It is involved in manufacture and sales of oils and fats, ingredients for confectionery and bakery, and soy protein. The production facilities and sales offices are located in Japan, China, Europe, North and South America. Fuji Oil (Shanghai) Management Co., Ltd is the regional headquarters for China. Fuji Oil China has 5 manufacturing facilities and 8 marketing offices in China. Whipped cream, margarine, fillings, flavours and frozen dough are the products supplied for confectionery and bakery sector. The group's annual revenue was reported to be USD 2.5 blo.

Product type	Brand	Description
Margarine		

Data edited

product portfolio which includes chemicals, plastics, performance products and crop protection products. The total sales of the company in 2015 was about USD 88.4 blo and of which USD 118 mlo was from the sales of enzyme. BASF has externalized the enzyme production and uses GM microorganisms. BASF supplies food enzymes originated from the USA under the brand, Nutrilife specifically for bakery industry. Lipase, glucose oxidase, maltogenic amylase, amylase, xylanase and enzyme blends are supplied in this category. These enzymes are provided with Vegetarian, Halal and Kosher certifications. BASF China is the company's subsidiary in China and was established in 2000. It has a workforce of about 2500 employees. BASF China has 8 production plants and a waste treatment plant in Shanghai, Jiangsu and Chongqing.

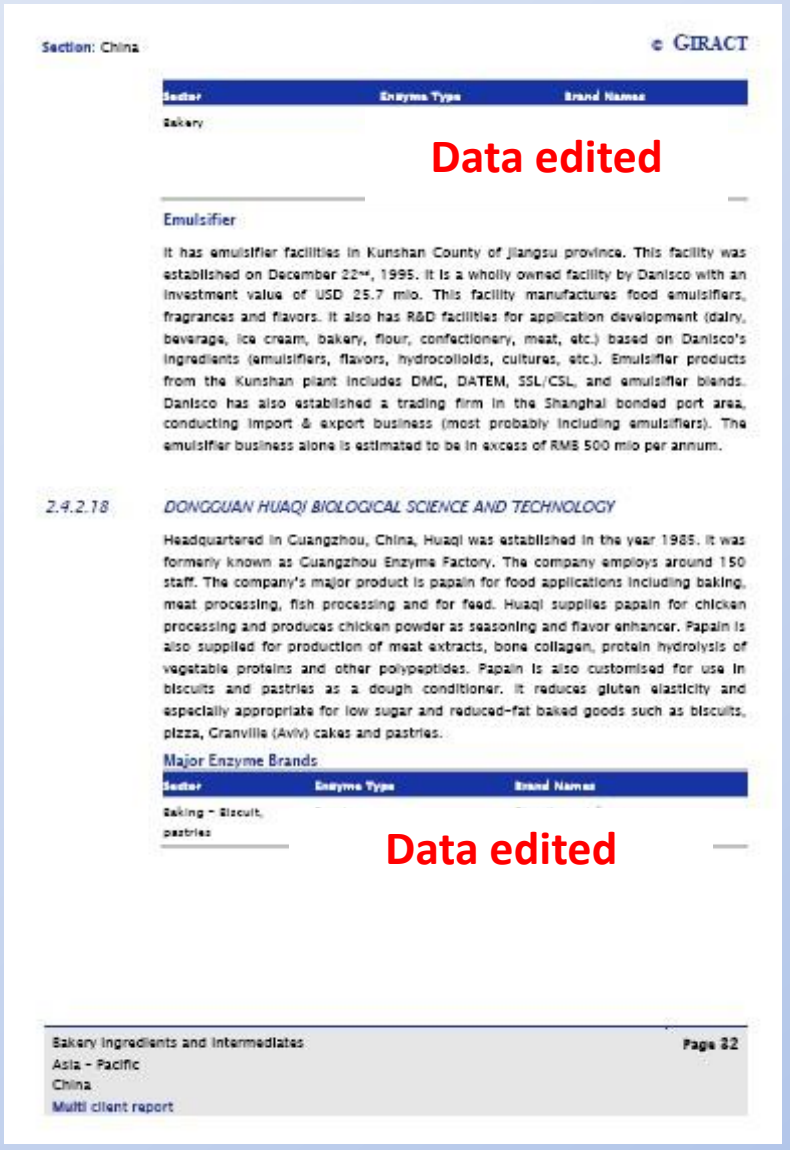
Product type	Brand	Description
Emulsifier		
Emulsifier- Mono- and diglycerides		
Emulsifier - Esters of mono- and diglycerides		
Emulsifier - Sodium stearoyl-2-lactylate		
Emulsifier - Esters of mono- and diglycerides		
Emulsifier		
Enzymes-Xylanases, Amylases, Phospholipase, Cellulases, and others		

Data edited

2.4.2.15 *LESAFFRE*

Headquartered in Marcq-en-Baroeul, Lesaffre was founded in 1858. Its products are sold in more than 180 countries. It is one of the largest players in yeast market. Lesaffre employs a total of 9,300 staff in more than 80 subsidiaries (production sites and commercial offices) in around 40 countries. It has 55 production plants operating in over 40 countries. Annual turnover of the group in 2015 was USD 1.8 blo. Lesaffre started its business in China over 80 years ago with headquarters in Shanghai. It has 5 regional offices and 4 baking centres in the country. It also has 2 manufacturing plants each at Anhui Mingguang and Guangxi Laibin.

Sample Report Pages



Sector	Enzyme Type	Brand Names
Bakery		

Data edited

Emulsifier

It has emulsifier facilities in Kunshan County of Jiangsu province. This facility was established on December 22nd, 1995. It is a wholly owned facility by Danisco with an investment value of USD 25.7 mio. This facility manufactures food emulsifiers, fragrances and flavors. It also has R&D facilities for application development (dairy, beverage, ice cream, bakery, flour, confectionery, meat, etc.) based on Danisco's ingredients (emulsifiers, flavors, hydrocolloids, cultures, etc.). Emulsifier products from the Kunshan plant includes DMC, DATEM, SSL/CSL, and emulsifier blends. Danisco has also established a trading firm in the Shanghai bonded port area, conducting import & export business (most probably including emulsifiers). The emulsifier business alone is estimated to be in excess of RMB 500 mio per annum.

2.4.2.18 *DONGGUAN HUAQI BIOLOGICAL SCIENCE AND TECHNOLOGY*

Headquartered in Guangzhou, China, Huaqi was established in the year 1985. It was formerly known as Guangzhou Enzyme Factory. The company employs around 150 staff. The company's major product is papain for food applications including baking, meat processing, fish processing and for feed. Huaqi supplies papain for chicken processing and produces chicken powder as seasoning and flavor enhancer. Papain is also supplied for production of meat extracts, bone collagen, protein hydrolysis of vegetable proteins and other polypeptides. Papain is also customised for use in biscuits and pastries as a dough conditioner. It reduces gluten elasticity and especially appropriate for low sugar and reduced-fat baked goods such as biscuits, pizza, Cranville (Aviv) cakes and pastries.

Major Enzyme Brands

Sector	Enzyme Type	Brand Names
Baking - Biscuit, pastries		

Data edited



2.4.2.27 *V.PARD BIOTECHNOLOGY/ SUZHOU WEIBANG BIOTECHNOLOGY*

Headquartered in Jiangsu province, Weibang is one of the leading players in the biscuit and bakery enzyme market. The company was founded in 2000 and is involved in the production, sales and marketing of enzymes in China. Papain, glucose oxidase and neutral protease are the main enzyme products and are supplied under Weibang brand to producers of biscuits, flour, potato chips, cookies and glutinous rice products. It also supplies customised blends for the bakery industry (improvers and dough conditioners). The company collaborates with Jiangnan University in Wuxi, Jiangsu (formerly Wuxi Institute of Light Industry), US Wheat Associates, the US biscuit Manufacturers Association, Taiwan and the China Cereals Industry Institute for knowledge transfer.

Major Enzyme Brands

Sector	Enzyme Type	Brand Names
Baking - fritters, flour, pasta, crackers,		
Baking - biscuits, cookies		
Protein hydrolysis		
Baking		

Data edited

2.4.2.28 *GUANGZHOU HISOYA BIOLOGICAL SCIENCE AND TECHNOLOGY CO LTD*

Hisoya was initially a plant owned by SCUT (South China University of Technology). The company owns a start-of-the-art manufacturing facility in Guangzhou Science City, a new industrial zone in east Guangzhou. It supplies non-GMO soy lecithin with different specifications. Hisoya is now one of the biggest soy lecithin manufacturers in China with nearly 10 kt production in 2011. Its food approved emulsifier offering is limited to lecithin.

2.4.2.29 *GUANGZHOU KEVIN FOOD CO LTD*

Guangzhou Kevin is a manufacturer of food emulsifiers. During 2010-2011, the company rapidly expanded its facility after operating its new plant of 10 ktpa of DMC and later expanded to 25 ktpa. The company has specialized systems for ice-cream, which is a blend of tween-80 and blends for other applications.

2.4.2.30 *HENGSHUI HUADING OILS AND CHEMISTRY CO LTD*

Hengshui Huading Oils and Chemistry Co Ltd was formerly a fats & oleochemical facility founded in 1985 and is now the biggest DMC manufacturer in northern China. Its product portfolio includes DMC and hardening oil with a production capacity of 15 ktpa and 20 ktpa, respectively. The main ingredient of hardening oil is glyceryl stearate. It produces approximately 20 ktpa of glyceryl stearate, of which 10 kt is

Sample Report Pages



Section: China © GIRACT

Premixes

Producer	Volume (t)	Share (%)
ABF		
Puratos		
CSM		
Bakels		
others		

Source: ciract, based on interviews and analysis

Mixes

Producer	Volume (t)	Share (%)
Puratos		
ABF		
Komplet		
others		

Source: ciract, based on interviews and analysis

Sourdough preparations

Producer	Volume (t)	Share (%)
Puratos		
Lesaffre		
Suwelac		
others		

Source: ciract, based on interviews and analysis

Margarines

Producer	Volume (t)	Share (%)
Wilmar		
Fuji Oil		
GrainCorp		
NamCow		
AB Mauri		
others		

Source: ciract, based on interviews an

Data edited

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Section: China © GIRACT

2.8.2. DEMAND FOR INGREDIENTS

Demand for ingredients in frozen bread products, China, 2015 t

Sector	Method	2015	2020	Δ
Frozen dough				
Semi-finished forms				
Finished formats				

Source: ciract, based on analysis

Data edited

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