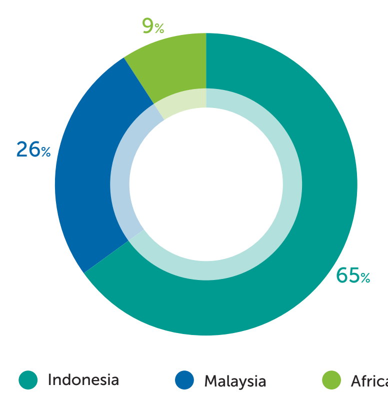
TROPICAL OILS (PLANTATION, MANUFACTURING AND MERCHANDISING)

The Tropical Oils segment comprises the Group's entire value chain from plantations and palm oil mills to processing, merchandising, branding and distribution of palm oil and laurics related products including oleochemicals, specialty fats and biodiesel.

Tropical Oils (Plantation)

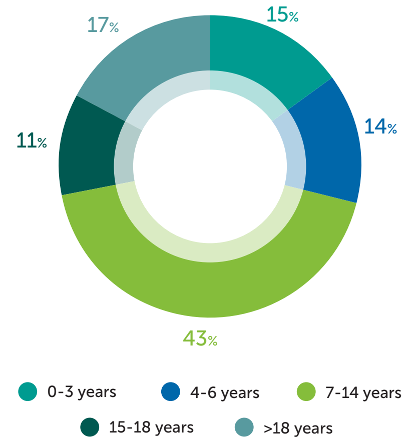
As at 31 December 2019, our total planted area stands at 232,940 hectares (ha). Through joint ventures, we own plantations in Uganda and West Africa of approximately 46,000 ha. Wilmar also directly manages 35,391 ha under smallholder schemes in Indonesia and Africa, and another 157,515 ha under smallholders schemes through associates in Africa.

Plantations Geographic Locations as at 31 December 2019



In recent years, we took the opportunity of the relatively low palm oil prices to step up our re-planting programme and thus maintaining the average age of our plantations at a relatively young 11 years. This will support the medium to long-term growth of our plantation operations. Around 54% of the plantations are at the prime production age of seven to 18 years and 29% are at age six years and below.

Plantations Age Profile as at 31 December 2019



Sustainability

Sustainability is an integral part of our business and operations. Since announcing our No Deforestation, No Peat, No Exploitation (NDPE) policy in December 2013, we have continued to further our commitment to drive sustainable practices and encourage collective action to accelerate supply chain transformation.

In November 2019, we published an updated NDPE policy following an extensive consultation process with stakeholders including non-governmental organisations (NGOs) and subject matter experts. The updated policy is better aligned with globally recognised frameworks and guidance, and incorporates our commitments to health and safety, human rights and whistleblowing.

For more information on our sustainability efforts, please refer to the Sustainability chapter.

Tropical Oils (Manufacturing and Merchandising)

We process and merchandise palm and lauric oils, sourced from our own plantations, smallholders and third-party suppliers, into refined palm oil, specialty fats, oleochemicals and biodiesel.

Through economies of scale and commitment to best practices in production, we have been able to sustain as one of the most cost-efficient producers in the industry. This efficiency is complemented by our strategically located facilities found near the coastal areas of both origin and destination markets, which enable us to manage transport, logistic and operational costs effectively. Together with an extensive distribution network and sales touchpoints spanning more than 50 countries and regions, Wilmar is well-positioned to capitalise on market intelligence acquired throughout the entire supply chain to meet the ever-changing demands of our customers.

Within the Tropical Oils segment, our activities also include manufacturing, merchandising and distribution of consumer pack branded tropical oils. We are the leading producer and seller in markets such as India, Indonesia, Vietnam, Bangladesh, Sri Lanka and several African countries. In the key locations of India and Indonesia, we have market shares of around 20% and 35% respectively.

During the year, we completed the purchase of Cargill Palm Products Sdn. Bhd's edible oil facilities in Kuantan, Malaysia. We have also started on the process of building an edible oil refinery and specialty fats processing facility in Port Klang, Malaysia. In 2019, our consumer packaging plant in Thilawa, Myanmar, commenced operations. It is the largest edible oil packaging plant in the country.

As at 31 December 2019, the Group has plants located in the following countries:

	REFINERY	OLEOCHEMICALS	SPECIALTY FATS	BIODIESEL
Subsidiaries				
Indonesia	26	4	4	11
Malaysia	16	3	1	2
China	54	10	7	0
Vietnam	4	0	2	0
Europe	0	1	0	0
Africa	2	0	2	0
Others	4	0	1	0
Total no. of plants	**106**	**18**	**17**	**13**
Total capacity *(million MT p.a)*	**32**	**2**	**2**	**3**
Associates				
India	49	3	6	0
China	7	1	3	0
Russia	4	0	1	0
Ukraine	2	0	1	0
Malaysia	3	0	0	0
Africa	10	0	6	0
Bangladesh	2	0	0	0
Europe	6	1	1	0
Indonesia	0	0	0	1
Singapore	0	0	1	0
Total no. of plants	**83**	**5**	**19**	**1**
Total capacity *(million MT p.a)*	**15**	**<1**	**<1**	**<1**

Note: Refinery capacity includes palm oil and soft oils

Industry Trend in 2019

In 2019, global palm oil production grew 2% from 74.2 million MT in 2018 to 75.7 million MT. The two largest producing countries, Indonesia and Malaysia, accounted for about 84% of global palm oil production. Indonesia's production increased 1% to 43.3 million MT and Malaysia's production grew 3% to 20.0 million MT.

Global demand for palm oil grew 9% to 77.9 million MT in 2019. Demand in Indonesia increased 20% to 14.5 million MT mainly due to the B20 biodiesel mandate. Demand in India increased 10% to 10.3 million MT as edible oil consumption grew. Demand in China increased 27% to 6.9 million MT as a result of a reduced supply of substitute products such as soybean oil and lard due to the African Swine Fever (ASF).

Crude palm oil (CPO) prices were on a downward trend in the first half of 2019 due to subdued demand and higher-than-expected production output. Prices started to recover in the third quarter of 2019 and surged in the fourth quarter on the back of higher demand anticipated from the expanded Indonesian biodiesel programme (B30), stronger uptake from China due to the prevalence of ASF and concerns over a supply shortfall due to slower production output growth. CPO prices closed at RM3,052 at the end of 2019, up 41% from RM2,166 at the beginning of the year.

Our Performance

In 2019, pre-tax profit for the Tropical Oils segment increased by 54% to US$841.6 million from US$546.1 million in 2018, boosted by good performance from merchandising activities and downstream processing margins.

In Plantations, production yield decreased by 7% to 20.1 MT per ha in 2019 from 21.6 MT per ha in 2018, impacted by the Group's younger plantation age profile due to its recent replanting activities and unfavourable weather conditions. This resulted in a 7% decrease in total fresh fruit bunches production to 3,914,613 MT for the year.

Supported by strong sales volume in the first nine months of the year, overall sales volume for the manufacturing and merchandising businesses increased by 5% to 25.6 million MT in 2019. However, weaker commodity prices in the current year led overall segment revenue to decrease by 9% to US$15.54 billion in 2019 from US$17.06 billion in 2018.

Outlook and Strategy

Global palm oil production is expected to decrease marginally to 76.3 million MT for the marketing period from October 2019 to September 2020. Expectations of lower production in 2020 are due to the lagged impact of dry weather conditions and the reduction of fertiliser application when CPO prices were low in the first half of 2019.

Demand is expected to sustain as Indonesia implemented the B30 biodiesel programme in January 2020. Furthermore, with the resumption of the CPO export levy in Indonesia starting January 2020, we are optimistic about the outlook of our downstream businesses in Indonesia. However, the outbreak of the 2019 novel coronavirus (Covid-19) may have some short-term impact on our operations in China. Nonetheless, we remain positive about the long-term prospects of palm oil with the rise of global demand for our food and non-food applications such as oleochemicals and specialty fats.

OILSEEDS AND GRAINS (MANUFACTURING & CONSUMER PRODUCTS)

The Oilseeds and Grains segment consists of the processing, merchandising, branding and distribution of non-palm and lauric edible oils, oilseeds, flour and rice as well as downstream products such as wheat and rice noodles in consumer pack, medium pack and in bulk.

Manufacturing

We are a leading player in oilseed crushing with extensive presence in various parts of the world such as China, India, Vietnam, Malaysia, Russia, Ukraine, Zimbabwe, Zambia, Tanzania and South Africa. We crush a wide range of oilseeds including soybean, rapeseed, groundnut, sunflower seed, sesame seed and cotton seed into protein meals and edible oils. The protein meals produced are mainly sold to the animal feed industry while the oils are largely sold to the Group's Consumer Products business.

Our operations include flour and rice milling as well as the production of rice bran oil. We are one of the largest wheat and rice millers in China and own flour mills through joint ventures in Malaysia, Indonesia, India, Vietnam and Thailand.

As at 31 December 2019, the Group has crushing plants and flour and rice mills located in the following countries:

	CRUSHING	FLOUR MILLING	RICE MILLING
Subsidiaries			
China	57	21	20
Malaysia	1	0	0
Vietnam	3	0	0
Africa	1	0	0
Indonesia	0	2	1
Myanmar	0	1	0
Papua New Guinea	0	2	0
New Caledonia	0	1	0
Total no. of plants	**62**	**27**	**21**
Total capacity *(million MT p.a)*	**27**	**8**	**4**
Associates			
China	16	1	2
India	19	2	2
Russia	2	0	0
Ukraine	1	0	0
Vietnam	1	4	1
Malaysia	0	9	0
Indonesia	0	2	0
Others	4	1	1
Total no. of plants	**43**	**19**	**6**
Total capacity *(million MT p.a)*	**14**	**3**	**<1**

Note: Crushing capacity includes oilseeds crushing and rice bran extraction

Consumer Products

Our portfolio of consumer products include edible oils, rice, flour, noodles, sauces and condiments and are manufactured in China, Indonesia, India, Vietnam, Bangladesh, Sri Lanka and several African countries. Over the years, we have established a comprehensive sales and distribution network reaching out to traditional retail outlets, supermarkets, convenience stores and hypermarts. Our consumer brands are renowned for their quality, having won numerous product awards in their respective markets. In China, we have a substantial market share of around 45% for edible oils, helmed by our flagship Arawana brand of products.

Leveraging the extensive distribution and brand awareness from the consumer edible oils and food staples, we have also diversified into the consumer pack flour and rice businesses in China, Indonesia and Papua New Guinea and rice in Ghana, Bangladesh and Zimbabwe as well as flour in Vietnam, New Caledonia, Thailand, India and Malaysia.

Industry Trend in 2019

In 2019, trade tensions between the United States (US) and China continued to have an impact on soybean trade flows. Soybean imports in China declined significantly from a peak of 95.5 million MT in 2017 to 88.0 million MT in 2018 and remained largely unchanged at 87.5 million MT in 2019, with the bulk of the supply coming from South America. While Brazil's overall exports of soybeans decreased 12% in 2019 to 73.5 million MT, Argentina's soybean exports increased substantially to 10.2 million MT in 2019 due to a better harvest. US soybean exports increased 10% to 51.3 million MT in 2019 as trade negotiations progressed during the year. China remained the top importer of soybeans, accounting for approximately 58% of the world's demand in 2019.

Nonetheless, total volume of soybeans crushed in China decreased 11% from 93.0 million MT in 2018 to 82.9 million MT in 2019 due to the lingering effects of the US-China trade tensions and the African Swine Fever (ASF) outbreak. As a result, both soybean meal and soybean oil saw lower consumption in 2019. Soybean meal consumption in China decreased 11% to 65.5 million MT while soybean oil consumption in China decreased 4% to around 16.0 million MT in 2019.

On the supply side, good weather in Argentina led to a rebound in soybean production and crop yields after a drought battered its crops in 2018. However, dry weather conditions during the start of the harvesting season in Brazil resulted in a slightly lower production.

In the Consumer Products business, we continued to benefit from healthy demand for branded consumer pack food staples across the countries in which we operate.

Our Performance

In 2019, the Oilseeds and Grains segment achieved a pre-tax profit of US$636.9 million, a 27% decrease from US$875.0 million in 2018 as overall crush volume and margins for the year were impacted by the ASF outbreak in the first half of 2019.

Consumer products sales volume improved by 7% from 6.0 million MT to 6.4 million MT as a result of the earlier Chinese Spring Festival in January 2020.

Outlook and Strategy

The 2019 novel coronavirus (Covid-19) outbreak has brought volatility to the commodity markets and further challenges our operating environment, especially in China. At the moment, we do not expect a major impact to our businesses as we are mainly operating in the food products industry. Nevertheless, a prolonged outbreak of Covid-19 may have a greater impact on our operations. We will continue to monitor key developments including any impact on food supply and food consumption in China as well as other major markets. Soybean imports into China are forecast to recover by 3% to around 85.0 million MT for the marketing period of October 2019 to September 2020.

In the Consumer Products business, we will continue to benefit as consumers' preferences shift from unpackaged to quality branded consumer pack products. We will also continue to strengthen our brand reputation while improving our distribution networks, research and development as well as expanding our portfolio of products to grow our market presence globally.

OPERATIONS REVIEW

SUGAR (MILLING, MERCHANDSING, REFINING & CONSUMER PRODUCTS)

Wilmar operates an integrated sugar business across the entire value chain from sugarcane in Australia and beet plantations in Morocco to retail products marketed under leading brands such as CSR, Chelsea, Al Kasbah and Madhur. In between, we operate sugar mills, cogeneration plants, ethanol distilleries, and sugar refineries across the globe, linking key origins and destinations through a market-leading merchandising team headquartered in Singapore and supported by key strategic partnerships, such as the joint venture with the leading sugar and ethanol producer, Raízen Energia S.A. in Brazil. We trade over 12.0 million MT of raw and white sugar globally.

In Australia, our sugar business involves sugarcane cultivation, milling and refining to produce white sugar, brown sugar, caster sugar and syrups. We also produce ethanol as well as fertiliser.

We produce around 60% of Australia's raw sugar and our 75%-owned refinery joint venture supplies about 75% of Australia's and New Zealand's refined sugar requirements and also exports to many Asia Pacific markets. We are also Australia's largest generator of renewable electricity from biomass. We own leading sugar brands CSR in Australia and Chelsea in New Zealand. To complement our diversified product and brand portfolio, we also distribute the Equal range of sweeteners.

In Indonesia, we operate two refineries in Java with a refining capacity of about 700,000 MT.

In Morocco, we own a block of 29.9% (as at December 2019) in Cosumar S.A. (Cosumar) which operates one refinery and seven sugar beet/cane mills as well as the sugar brands Al Kasbah, La Gazelle and El Bellar. Cosumar is the sole sugar producer in Morocco and the third largest in the African continent, with a strong distribution network that includes exporting refined sugar to neighbouring countries around the Mediterranean Sea and West Africa.

In India, we are the majority controlling shareholder with 58% of Shree Renuka Sugars Limited (SRSL), the leading sugar company in India. SRSL's business comprises seven mills with a total cane crushing capacity of 8.4 million MT per annum, two port-based refineries - one each in Kandla and Haldia - with a combined capacity of 1.8 million MT per annum, a cogeneration capacity of 584 MW as well as the leading sugar brand Madhur.

In Myanmar, we have a majority 55:45 joint venture with Great Wall Food Stuff Industry Company Limited, the leading sugar company. The joint venture operates two sugar mills with a total sugar production of 1.4 million MT, a bio-ethanol plant and an organic compound fertiliser plant.

We have also expanded our sugar operations to Inner Mongolia, China, where our activities include the purchase and processing of sugar beet, the sale of sugar beet and its by-products as well as the production and sale of sugar and sugar products.

Sugar Developments

In 2019, we consolidated our operations worldwide and improved the integration between refineries and marketing. We set up a white sugar marketing desk in Dubai that centralises white sugar distribution from our refineries.

In Australia, we have integrated our refinery operations and marketing desk with the operations of Goodman Fielder which is now a wholly-owned subsidiary of the Group.

Industry Trend in 2019

World sugar price was under pressure for most of 2019, trading down to a low of 10.50 US cents per pound and mostly traded below 12.50 US cents per pound due to massive exports from India, which further added to an already oversupplied market. Thailand had another bumper crop and sugar was delivered for the first time in many years against the July New York and August London quotations.

Our Performance

In 2019, the Sugar division reported a pre-tax profit of US$2.6 million compared to a pre-tax loss of US$128.2 million in 2018. The better performance was due to the absence of a non-cash impairment charge of US$138.6 million recognised in 2018 relating to the milling operations in Australia.

Overall sales volume for the segment increased by 16% from 11.7 million MT in 2018 to 13.6 million MT in 2019. Correspondingly, revenue increased by 17% from US$4.01 billion in 2018 to US$4.71 billion in 2019.

Outlook and Strategy

The weather in Asia was generally dry in 2019 and this is expected to result in lower crop production across the region in 2020. In Thailand, due to unfavourable weather conditions, cane production could be reduced as much as 40.0 million MT removing about 5.0 million MT of sugar in one year, while China, Indonesia and the Philippines are expected to import larger quantities of sugar. At the same time, US beet and cane crops were negatively affected by bad weather, therefore also increasing its import requirements. The European crop is also down drastically, leaving limited availability for export. However, we can expect a good crop from India with another export quota anticipated.

In 2020, the new Cosumar refinery, named Durrah and located in Yanbu, Saudi Arabia, will start operations with a capacity of 850,000 MT/year.

Our Sugar division is well placed to capture the higher white premium (difference between London white market and New York raw market) and the positive outlook in the Far East business.

	MILLING	REFINING
Subsidiaries		
Australia	8	2
New Zealand	0	1
Indonesia	0	2
India	7	2
Myanmar	2	0
China	2	0
Total no. of mills/plants	**19**	**7**
Total capacity *(million MT p.a)*	**28**	**4**
Associate		
Morocco	7	1
Total no. of mills/plants	**7**	**1**
Total capacity *(million MT p.a)*	**4**	**1**

OPERATIONS REVIEW

FERTILISER

The bulk of the Group's fertiliser business operation and market is in Indonesia. With an average annual sales volume of about 2.0 million MT, we are one of the largest fertiliser players in Indonesia.

In addition to having production lines focusing on nitrogen, phosphorus and potassium (NPK) compound fertilisers, we also engage in the trading and distribution of potash, phosphate and nitrogen fertilisers as well as secondary nutrients and trace element products. Supported by extensive logistics networks, the Group has been able to maintain substantial market shares of both potash and NPK in Indonesia, particularly in the oil palm sector. Customers of our fertiliser business are also our suppliers of fresh fruit bunches, crude palm oil and palm kernel, enabling us to tap this captive market and minimise credit risk.

At present, Wilmar's total installed capacity of NPK compound in Indonesia is 1.2 million MT per annum, with a further 100,000 MT per annum capacity in Sabah to complement the Group's activities in East Malaysia. We are also the appointed distributor of Canadian potash, Peruvian rock phosphate and USA borate in Indonesia.

Industry Trend and Our Performance

Despite the long-term prospects, 2019 proved to be a difficult year for the fertiliser industry, where regional

fertiliser consumption in Indonesia and Malaysia declined by an estimated 25-30% in volume. The decline in volume was mainly contributed by the continued downward pressure on global commodity prices, especially palm oil, for the most part of 2019. This in turn dampened demand and buying sentiment throughout the year, with some plantations using less or even skipping some fertiliser application period. On top of a challenging first half of the year, the market suffered further in the second half where fertiliser prices saw declines across the industry. Despite the decline in annual sales volume and challenging market conditions in 2019, the Group's fertiliser business delivered a better profitability overall compared to 2018, mainly attributed to timely purchase of raw materials as well as a more stable currency market.

Outlook and Strategy

The Group continues to remain positive on the long-term outlook for the region's agricultural sector, given the positive sentiment in oil palm. We aim to focus on markets where we have a significant presence and competitive advantage to ensure achievable and sustainable growth. We are also actively exploring other growing markets for fertiliser and capitalising on local channels as well as global networks that the Group has.

SHIPPING

As part of the Group's integrated business model, we own a fleet of liquid and dry bulk carriers to support our shipping requirements. This fleet of vessels gives our operations greater flexibility and efficiency. Additional shipping requirements not served by this fleet are met by chartering-in third-party vessels.

In 2019, the total volume of liquid bulk and dry bulk shipped saw a marginal increase compared to the previous year. Despite challenging market conditions, the shipping unit also maintained a respectable profit for the year.

In line with the Group's long-term strategy, we will continue to seek good opportunities to expand our fleet with more cost-effective vessels to support the needs of our logistics operations.

As at 31 December 2019, the Group owned and controlled tankers / dry bulk vessels with a total tonnage of about 2.5 million MT.

RESEARCH AND DEVELOPMENT

Wilmar's research and development (R&D) activities support our business operations by improving manufacturing processes, developing new innovative products as well as ensuring the consistency and enhancing the quality of existing products. Our R&D work is being carried out by around 600 scientists and researchers in various locations worldwide, including Singapore, China, Indonesia, India, Malaysia, Australia and New Zealand. In line with the Group's integrated approach, our R&D teams engage in cross-border collaborations as well as with external organisations to share knowledge and resources, and to enhance the collective R&D effort.

In 2019, our R&D teams focused on the following areas:

Functional Foods

- Collaborated with the National University of Singapore in the WIL@NUS Corporate Lab to carry out clinical trials to identify food ingredients that can better contribute to healthy living and promote healthy ageing.
- Completed a Government-funded human clinical trial in New Zealand to assess a prototype meal replacement drink for sarcopenia (muscle loss) including Goodman Fielder's dairy and Wilmar's soy protein. The project involved input from Wilmar researchers in Singapore and Shanghai as well as knowledge transfer and support to the Singapore team in planning for subsequent sarcopenia clinical trials focusing on plant protein.
- Developed and launched active fermented porous noodles using patented low-fermentation technology. Naturally active yeast imparts on the noodles a unique porous structure and makes them easier to cook, digest and absorb.
- Developed slowly digestible (low glycemic index) noodles using wheat flour and ultrafine wheat bran.

Plant-Based Protein

- Established a new research team in Singapore to study plant-based meat analogues.
  - o Developed plant-based meat analogues using natural ingredients. The new products have improved nutritional profile, such as reduced sugar and sodium content.
- Completed the construction of a protein application laboratory in Shanghai. Prototypes such as high-end meat products, surimi products and meat analogues are being prepared in this laboratory which also carries out customer projects and provides technical training.
- Developed a new technology that produces soy protein to replace egg albumin for a wide range of uses in food, especially in bakery products.
- Developed a variety of Chinese dishes using texturised vegetable protein.

Feed Ingredients

- Continued effort in microbes screening and collection for fermentation and improvement of feed ingredients.
- Developed and launched fermented soybean meal to eliminate undesirable factors in soybean meal. The product is especially suited for young animals and pets and has been well-received by the feed industry for its quality.

Environmentally Sustainable Processing Solutions

- Development and application of enzymes to provide environmentally sustainable solutions to our food processing industry and oleochemicals production.
- Developed and commercialised a chemical catalyst-free and green process of producing natural vitamin E with high yield and improved quality, and less effluent.
- Developed a solution to recycle waste hydrochloride from certain oleochemical processes, thereby eliminating waste.

- Developed and launched soaps and detergents using our vegetable-based surfactant which are more consumer, fabric and environmentally friendly.
- Spent-bleaching earth revitalisation to minimise waste and increase sustainability of palm oil production.

Food Quality Control

- Integrated photonic analysis with artificial intelligence for detection of oil adulteration, assessing of frying oil quality and achieving optimal blending of frying oil.
- Developed rice variety detection methods based on genomic bioinformatic analysis. These methods for on-site evaluation of rice grains, raw material purity detection and product quality control have been rolled out in some of our plants and will enhance our ability to provide high quality products to our customers.

New Products and Product Improvements

- Launched seven new functional and flavoured soymilk powder products.
- Arawana soybean curd powder was awarded the second prize in science and technology progress by the China National Light Industry Council.
- Collaboration between R&D teams in New Zealand, Shanghai and Singapore to reformulate whipping cream product.
- New range of high protein/low fat Greek yoghurt in New Zealand.
- Launch of first low glycemic index white bread in Australia. Made with unique ingredients for longer lasting energy, it was the highest selling new product in the supermarket aisle loaf category in 2019.

Upstream Activities

- Production of plant growth promoter (probiotics) and biofungicides (biocontrol) for sustainable oil palm cultivation.
- Genetic improvement of elite oil palm through precision molecular breeding.
- Genetic improvement of Indonesia elite rice cultivar to increase its fragrance flavour.

Other Activities

- Launch of the China National Nutrition Science Research Grant.
  - Wilmar has committed to providing a 10-year grant of RMB10 million a year which will fund clinical studies on the elderly, diabetics and patients in cancer rehabilitation as well as improving the Chinese food database and nutrition status of school-age children in poor areas.
- Research on ingredients in infant formula.
  - Collaboration with the Chinese Nutrition Society and various universities to investigate the composition of human milk fat which resulted in a patented human milk fat substitute (OPO).