The information and statistics set out in this section and other sections of this prospectus were extracted from different official government publications, available sources from public market research and other sources from independent suppliers, and from the independent industry report prepared by Frost & Sullivan. We engaged Frost & Sullivan to prepare the Frost & Sullivan Report, an independent industry report, in connection with the Global Offering. The information from official government sources has not been independently verified by us or any Relevant Persons, and no representation is given as to its accuracy.

SOURCES OF INFORMATION

In connection with the Global Offering, we have engaged Frost & Sullivan, an independent market research consulting firm, to conduct a detailed analysis and prepare an industry report on the dairy, raw milk supply and beef cattle industries in China. Frost & Sullivan is an independent global consulting firm founded in the United States in 1961. It is principally engaged in the provision of market research consultancy services, conducting industry research, and providing market and enterprise strategies and consultancy services across various industries. We incurred a total of US\$102,000 in fees and expenses in connection with the preparation of the Frost & Sullivan Report. The payment of this amount is not contingent on the success of the Global Offering or on the conclusions of the Frost & Sullivan Report. Except for the Frost & Sullivan Report, we did not commission any other industry report in connection with the Global Offering.

In connection with the preparation of the Frost & Sullivan Report, Frost & Sullivan performed both primary and secondary research, and obtained knowledge, statistics, information and industry insights on the industry trends of the target research markets. Primary research involved interviewing industry insiders such as leading market players, suppliers, customers, and recognised third-party industry associations. Secondary research involved reviewing company reports, independent research reports, and data based on Frost & Sullivan's own research database. Frost & Sullivan has independently verified the information, but the accuracy of the conclusions of its review largely relies on the accuracy of the information collected. Frost & Sullivan's research may be affected by the accuracy of assumptions used and the choice of primary and secondary sources.

Our Directors confirm that, after taking reasonable care, there is no material adverse change in the overall market information since the date of the Frost & Sullivan Report that would materially qualify, contradict or have an adverse impact on such information.

THE DAIRY INDUSTRY IN CHINA

Overview

The dairy industry in China has been undergoing rapid growth in recent years and has significant growth potential. This growth is primarily driven by increasing per capita dairy products consumption due to continuous urbanisation, increase in disposable income and consumption upgrades.

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INDUSTRY OVERVIEW

The retail sales value of dairy products has experienced strong growth from RMB363.0 billion in 2016 to RMB557.4 billion in 2021, representing a CAGR of 9.0%. In 2021, the retail sales value of dairy products increased significantly by 13.7% mainly due to (i) effective government control of the COVID-19 pandemic and (ii) consumers' rising health awareness and willingness to pay higher prices for dairy products. The total retail sales value of dairy products is expected to reach RMB875.5 billion in 2026, at a CAGR of 9.5% from 2021 to 2026.

Set forth below is a chart indicating the retail sales value of dairy products for the periods indicated.



Retail Sales Value of Dairy Products by Category (China), 2016-2026E

Source: National Bureau of Statistics, Dairy Association of China, General Administration of Customs, Frost & Sullivan

The retail sales volume of dairy products market increased from 25.8 million tons in 2016 to 34.2 million tons in 2021, with a CAGR of 5.8%. As of 2021, the liquid milk market, which consists of UHT milk, pasteurised milk, and yogurt, totalled a retail sales volume of 29.7 million tons, taking up 86.8% of the total dairy product market. The retail sales volume of dry dairy products grew from 3.2 million tons in 2016 to 4.5 million tons in 2021, realising an even higher growth rate from 2016 to 2021.

With the increasing consumer preference in high-end and diversified dairy products such as butter, cheese, cream, the retail sales volume of dairy product is expected to reach 46.7 million tons in 2026, at a CAGR of 6.4% from 2021 to 2026.

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INDUSTRY OVERVIEW

Set forth below is a chart indicating the retail sales volume of dairy products for the periods indicated.



Retail Sales Volume of Dairy Products by Category (China), 2016-2026E

Source: National Bureau of Statistics, Dairy Association of China, General Administration of Customs, Frost & Sullivan

Compared to the dairy product market in developed countries, China's dairy product market is still underpenetrated and has significant growth potential. The dairy products consumption per capita (milk equivalent) in China was 41.8 kilograms in 2020, which was only 17.0% of that in the European Union and only 18.4% of that in the United States. The dairy products consumption per capita (milk equivalent) in China was also much lower than that of certain Asian countries with similar dietary habits, such as South Korea and Japan.

In addition, the dairy products consumption per capita (milk equivalent) in China increased from 34.8 kilogramme in 2016 to 46.6 kilogramme in 2021, at a CAGR of 6.0%, which was faster than the growth of liquid milk consumption per capita. This is primarily because of the higher growth rate for dry dairy products due to consumption upgrades. The dairy products consumption per capita (milk equivalent) is expected to reach 65.3 kilograms in 2026, at a CAGR of 7.0% from 2021 to 2026. This is supported by consumers' increasing disposable income, rising health awareness and rising demand for dairy products. The COVID-19 pandemic in China in early 2020 resulted in widespread and prolonged government-mandated lockdowns across China, stringent measures, including mandatory quarantines and inspection, travel restrictions, suspension of public transportation and prohibition of social and work gatherings were imposed in numerous regions across China, causing a significant reduction in various industries in the first half of 2020, including the dairy industry. The liquid milk consumption per capita in 2020 recorded a lower growth of 2.1%. As a result of the effective control of COVID-19 and the easing of movement restrictions in 2021, the liquid milk consumption per capita recovered with a growth rate of 9.4% in 2021.

Set forth below is a chart indicating the dairy products consumption per capita in China for the periods indicated.



Dairy Products Consumption Per Capita (China), 2016-2026E

Note:

Source: National Bureau of Statistics, Dairy Association of China, General Administration of Customs, Frost & Sullivan

The retail sales value of high-end liquid milk has grown from RMB87.8 billion in 2016 to RMB184.9 billion in 2021, representing a CAGR of 16.1%, and is expected to further grow to RMB391.3 billion in 2026 at a CAGR of 16.2%. This represents a significantly higher growth rate as compared to that of regular liquid milk. The primary reason for this significant growth is due to the increasing demand for high-end liquid milk. High-end liquid milk is expected to become the dominant category of the liquid milk market in China.

⁽¹⁾ The dairy products consumption per capita (milk equivalent) refers to the consumption in milk equivalent of liquid milk, butter, cheese and cream. Milk equivalent is a measure of the quantity of raw milk used in a processed dairy product. For example, it takes one kilogramme of raw milk to produce one kilogramme of liquid milk, and approximately eight kilogrammes of raw milk to produce dry dairy products.

Set forth below is a chart indicating the retail sales value of high-end liquid milk as compared to regular liquid milk for the periods indicated.





(1) High-end liquid milk is defined as liquid milk which is generally rich in protein, fat and other nutritional content. It has a retail price of no less than RMB20/L in 2020.

(2) Regular liquid milk has a retail price of less than RMB20/L in 2020.

Source: National Bureau of Statistics, Dairy Association of China, General Administration of Customs, Frost & Sullivan

The retail sales volume of high-end liquid milk has grown from 7.5 million tons in 2016 to 13.6 million tons in 2021, with a CAGR of 12.6%, and it is expected to further grow at a CAGR of 12.9% to 24.9 million tons in 2026.

Notes:

Set forth below is a chart indicating the retail sales volume of high-end liquid milk as compared to regular liquid milk for the periods indicated.



Retail Sales Volume of Liquid Milk by Price Range (China), 2016-2026E

Source: National Bureau of Statistics, Dairy Association of China, General Administration of Customs, Frost & Sullivan

The competitive landscape of the dairy industry in China has been undergoing changes in recent years. Due to large scale digital marketing campaigns targeting the younger generations and various product offerings catering to consumer demand, emerging dairy brands have achieved significant development. During the past three years, emerging dairy brands have grown at a CAGR of more than 50%. In addition, regional dairy companies have achieved steady development due to their localised and diversified product offerings. As a result, the competitive landscape of the dairy industry in China has become more dynamic. The market concentration of two leading dairy companies in China, in terms of retail sales value of dairy products in China, decreased from 58.6% in 2019 to 55.5% in 2021. This was mainly due to (i) the demand for diversified dairy products; (ii) the rise of emerging dairy brands, which target mid-to-high end products and normally focus on one sub-category of dairy products and (iii) the increasing penetration of online sales of dairy products, because of the COVID-19 pandemic.

Key Growth Drivers of the Dairy Industry in China

- Sustained urbanisation. China's urbanisation rate is expected to increase from 63.9% in 2020 to 70.7% in 2025. As more people migrate to urban cities, their consumption habits have evolved. These individuals have become more accustomed to dairy products consumption, which has been driving up the overall dairy consumption in China. In addition, accelerated urbanisation brings urban lifestyle and habits to lower-tier cities and rural areas, which is expected to propel dairy consumption in these regions. As a result, a larger number of Chinese consumers have become accustomed to dairy product consumption, which has been driving up the overall dairy product consumption, which has been driving up the overall dairy product consumption, which has been driving up the overall dairy consumption in China.
- Increasing disposable income promoting consumption upgrade. With rising disposable income, Chinese consumers are willing to spend more on dairy products. The increased disposable income propels the consumption upgrade in China. Continuous consumption upgrade in China drives the demand for dairy products, especially the demand for high-end dairy products with rich nutritional content (e.g. high-end liquid milk, cheese and cream). The retail sales value of high-end liquid milk is expected to increase from RMB184.9 billion in 2021 to RMB391.3 billion in 2026, representing a CAGR of 16.2%.
- *Rising health awareness and demographic change.* Chinese consumers, especially the younger generations, have become more health-conscious and place greater importance on a balanced diet with diversified nutrients. As a result, the demand for diversified and high-quality dairy products is expected to increase. Dairy products with high nutritional value have become a popular dietary staple in China. For example, specialty dairy products with high nutritional value, such as organic milk, Jersey milk and yogurt, have gained wide popularity in China. Furthermore, the outbreak of the COVID-19 pandemic has significantly increased Chinese consumers' health concerns. Chinese consumers have increasingly recognised the importance of dairy products as part of a healthy balanced diet. This is expected to further promote the growth of the dairy market.
- *Favourable government policies.* The PRC government has promulgated a series of encouraging policies to support the development of the raw milk supply market in China. For example, the "Outline of the People's Republic of China 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2035" (中華人民共和國國 民經濟和社會發展第十四個五年規劃和2035年遠景目標綱要), released in March 2021, identifies the main tasks for the future modern dairy industry development. These include (i) accelerating the development of smart dairy industry, (ii) promoting the construction of national-level livestock and poultry core breeding farms, (iii) promoting the development of the dairy products processing industry, (iv) driving up industrial integration and (v) sharpening the competitive edge of private dairy companies in China. In addition, the Ministry of Agriculture and Rural Affairs put forward the "No. 1 Document released by the Central Government in 2019" (2019年中央一號文件) to implement the revitalisation action of the dairy industry. It mainly includes upgrading small and medium-sized dairy farms, as well as implementing the revitalisation of alfalfa development plan in the dairy industry. At the same time, provincial governments have also launched plans to revive the local dairy industry.

• Increasing online sales of dairy products. With the robust development of internet and mobile internet, as well as online shopping platforms in China, online retail sales in the PRC has grown rapidly at a CAGR of 22.9% from 2016 to 2020. Dairy manufacturers leverage the thriving online retail model and China's fast and convenient delivery network to penetrate the dairy products market. The emergence of data-driven new retail models and efficient supply chain have driven up the sales of products with limited shelf lives. This has also provided customers with superior customer experience. The dairy products market is well-positioned to benefit from the convenient, highly-efficient logistics and delivery network in China, as well as from the rise of emerging dairy brands targeting younger consumers. As a result, online sales of dairy products are expected to grow and drive up the overall dairy product sales.

Key Market Trends of the Dairy Industry in China

- Chinese consumers' growing food safety and quality concerns. Chinese consumers are paying more attention to balanced nutritional diets as well as to the safety, quality and nutritional value of dairy products. The growing food safety and quality concerns about dairy products calls for more stringent quality control measures over dairy manufacturers' production processes and raw milk procurement. This is expected to boost the management procedures and standard production processes of dairy manufacturers so that they are better positioned to deliver safe and high-quality raw milk.
- Chinese consumers' evolving demand for diversified dairy products. Chinese consumers' demand for dairy products is evolving with rising urbanisation and disposable income. Demand for diverse dairy products, which are customised for various groups of people at different ages, is expected to drive up the development of the dairy product market. This, in turn, is expected to propel the prosperity of the dairy product market in China, especially of high-end dairy products.
- Further integration of technologies within the entire dairy industry value chain. The dairy industry is becoming more intelligent with the integration of different information technologies throughout the whole dairy industry value chain. These technologies help leading dairy companies to accumulate and analyse user data in order to achieve innovations in their businesses. As a result, dairy companies can increase their interaction with consumers and respond to customers' differentiated demands more efficiently and accurately.
- Emerging dairy brands gaining market share. Emerging dairy products brands are defined as dairy products brands targeting mid-to-high end dairy products and normally hold a place of one sub-category of dairy products, with a high growth rate in revenue over the past three years. These emerging dairy products brands, such as Honest Dairy (簡愛) and Adopt a Cow (認養一頭牛), have been gaining market share due to their large scale digital marketing campaigns targeting younger generations and various high-end product offerings catering to consumers' demand. These emerging brands have been growing at a CAGR of more than 50% during the past three years. This momentum of high growth is expected to continue for the next five years. The cooperation of dairy farm operators with emerging brands is also likely to foster the development of the dairy product market.
- Focus on operational efficiency. With the improvement of the Internet and advanced technologies, more dairy companies are integrating such technologies with their business operations and management procedures. It is expected that this integration with technologies will continue to improve the operational efficiency of dairy companies in the future.

THE RAW MILK SUPPLY INDUSTRY IN CHINA

Supply and Demand of Raw Milk in China

China's raw milk demand for dairy consumption has grown steadily in the past few years, from 43.4 million tons in 2016 to 59.2 million tons in 2021, representing a CAGR of 6.4%. Due to the increasing demand for dairy products from consumers as well as restaurants, coffee shops and tea shops, raw milk demand for dairy consumption in China is expected to further grow at a CAGR of 4.9% to 75.3 million tons from 2021 to 2026.

China's raw milk domestic supply remained relatively stable from 2016 to 2021, and reached 36.8 million tons in 2021, representing a CAGR of 3.8%. Driven by the increasing annualised average milk yield per milkable cow and rising number of dairy cows, raw milk supply is expected to grow at a CAGR of 4.2% to 45.2 million tons in 2026.

Raw milk demand for dairy consumption in China has continued to outstrip raw milk domestic supply over the years. The shortfall in domestic supply has continued to grow larger, and is expected to reach approximately 30.1 million tons in 2026. This is based on the grounds that (i) the raw milk demand for dairy consumption in China continues to ramp up at a faster pace than that of the supply for raw milk in the past few years and (ii) such upward momentum for the growing demand is likely to remain, despite the estimation that supply for raw milk is catching up.

Set forth below is a chart indicating the domestic supply and demand of raw milk in China for the periods indicated.



Supply and Demand of Raw Milk (China), 2016-2026E

Source: National Bureau of Statistics, Frost & Sullivan

Supply and Demand of High-end Raw Milk in China

High-end raw or premium milk refers to raw milk produced by dairy cows in large-scale dairy farms, which have standards higher than the PRC national standards, the U.S. standards, Japanese standards and the EU standards. High-end raw milk is mainly used in the production of high-end liquid milk, a small part of which is used in the production of high-end infant powder.

The high-end liquid milk market has represented significant growth in the past few years. High-end liquid milk products have much higher raw material quality standards than regular raw milk. As a result, the demand for high-end raw milk has grown significantly faster than regular raw milk. China's high-end raw milk demand has grown from 9.7 million tons in 2016 to 21.1 million tons in 2021, representing a CAGR of 16.8%. China's high-end raw milk demand is expected to further grow strongly at a CAGR of 9.3% to 32.9 million tons in 2026.

Driven by the strong demand for high-end raw milk and the development of large-scale dairy farms, the supply of high-end raw milk has also grown fast from 2016 to 2021. High-end raw milk supply has grown significantly from 6.6 million tons in 2016 to 12.7 million tons in 2021, representing a CAGR of 14.0%. The high-end raw milk supply is expected to grow strongly at a CAGR of 8.5% to 19.1 million tons in 2026.

High-end raw milk demand for dairy consumption in China has continued to outpace high-end raw milk supply over the years. This is due to the improvements in consumers' standard of living, consumption upgrades and the increasing demand for diversified high-end dairy products. The shortfall in supply continued to grow larger, which is expected to reach approximately 13.8 million tons in 2026.

Set forth below is a chart indicating the supply and demand of high-end raw milk in China for the periods indicated.



Supply and Demand of High-end Raw Milk (China), 2016-2026E

Source: National Bureau of Statistics, Frost & Sullivan

Raw Milk Quality

Protein content, fat content, aerobic plate count and somatic cell count are the four major indicators of raw milk quality. Generally, higher protein and fat content indicate higher quality. Aerobic plate count and somatic cell count are two major indicators used to determine the safety quality of raw milk. Generally, lower aerobic plate count and somatic cell count indicate improved sanitation and better animal health conditions. Safe and nutritive feed can ensure the health of cows and ensure the production of high-quality and safe raw milk. Less pesticide and veterinary drug residual antibiotic content are also very important. Large dairy farms with advanced management techniques and superior breed of dairy cows can typically produce raw milk of quality significantly above industry standards.

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INDUSTRY OVERVIEW

The protein content and fat content of our raw milk is 3.3% and 3.8% in 2021, which is higher than the National High Quality Milk Standard, the U.S. and Japanese standards. Meanwhile, the aerobic plate count and somatic cell count of our raw milk are far below that of the National High Quality Milk Standard, the U.S. and European standards.

Set forth below is a table indicating the raw milk quality standards of major companies and nations.

Major Companies/ Nations	Protein Content (%) Fat Content (%)		Aerobic Plate Count (CFU/ml)	Somatic Cell Count (CFU/ml)	
The Group ⁽¹⁾	3.3%	3.8%	5,081	141,239	
PRC national high-quality milk project ⁽²⁾	≥3.1%	≥3.3%	<100,000	<300,000	
Average of selected large-scale dairy farms ⁽³⁾	3.9%	3.9%	42,700	210,600	
PRC national standards ⁽⁴⁾	≥2.8%	≥3.1%	<2,000,000	N/A	
U.S. standards ⁽⁵⁾	≥3.2%	≥3.5%	<100,000	<750,000	
European standards ⁽⁶⁾	N/A	N/A	<100,000	<400,000	
Japan standards ⁽⁷⁾	≥3.2%	≥3.8%	N/A	N/A	

Raw Milk Quality Standard of Major Companies

Notes:

- (2) As set forth in the PRC National High-quality Milk Project in 2017.
- (3) Representing the average data in 2021 of 230 large-scale dairy farms with over 1,000 heads of dairy cows selected by the PRC National Dairy Cow Industry and Technology System (中國國家奶牛產業技術體系) for demonstration purposes. This is representative of large-scale dairy farms in China having comparable size and dairy farming practices to our dairy farms. The PRC National Dairy Cow Industry and Technology System is a joint initiative led by the Ministry of Agriculture and Rural Affairs and the Ministry of Finance of the PRC, which aims to promote technology innovations and propel the development of China's dairy farming operations through research and development and demonstration in the fields of dairy breeding, feed and disease control, among other things.
- (4) As set forth in the National Food Safety Standard Raw Milk published in 2010.
- (5) As set forth in the "A" Pasteurized Milk Ordinance issued by the U.S. Department of Health and Human Services in 2011.
- (6) As set forth in the Raw Milk Quality Standards in Council Directive 92/46/EEC adopted by the EU.
- (7) As set forth in Standard Table of Food Composition issued by the Ministry of Education, Culture, Sports, Science and Technology in 2015. Data of Japan is the standard of Holstein raw milk, in which the fat content refers to the fatty acid, triacyl-glycerol equivalents.

Source: National Bureau of Statistics, Ministry of Agriculture and Rural Affairs of China, U.S. Department of Health and Human Services, Council of European Union, Ministry of Education, Culture, Sports, Science and Technology, Frost & Sullivan

⁽¹⁾ As of 2021, provided by the Group.

Raw Milk Price

The raw milk price in China is primarily determined by the dynamics of market supply and demand. Raw milk price is influenced by a number of factors, including the quality of raw milk, market average price and cost of feed.

Since 2016 to the first half of 2018, China's raw milk price remained at relatively low levels and fluctuated within a range from RMB3,390 per ton to RMB3,558 per ton. The sluggish raw milk price had weeded out small-scale and less competitive dairy farms. Accordingly, raw milk production volume decreased from 30.6 million tons in 2016 to 30.4 million tons in 2017.

Raw milk price in China has predominately maintained an upward momentum in recent years, with the monthly average raw milk price rising from RMB3,550 per ton in January 2016 to RMB4,306 per ton in December 2021. This trending upward momentum is due to (i) refined operations of leading dairy participants, (ii) increasing feed price, (iii) growing labour cost, (iv) supply shortage of raw milk and (v) strong raw milk demands. During 2021, the raw milk price has remained relatively steady at high levels and achieved over RMB4,000 per ton. In the next one to two years, the average raw milk price is estimated to slightly increase or remain stable, mainly because of the increasing feed price and rising demand for high-end dairy products. The annual average raw milk price was RMB3,653 per ton, RMB3,793 per ton and RMB4,293 per ton in 2019, 2020 and 2021, representing a CAGR of 8.4%.

Set forth below is a chart indicating the monthly raw milk price in China from January 2016 to August 2022.



Monthly Raw Milk Price (China), January 2016-August 2022

Source: Ministry of Agriculture and Rural Affairs of the PRC

Dairy Farming

Scaled dairy farms (規模化牧場) refer to farms with not less than 100 heads of dairy cows. These scaled farms generally have higher milk yield and higher quality raw milk than small scale dairy farms. In general, large-scale dairy farms (大規模牧場) with more than 1,000 heads of dairy cows refer to dairy farms that require greater capital investment, advanced technologies, experienced management teams and standardised management procedures and farming methods. Large-scale dairy farms are generally more efficient, environment-friendly and in line with the national policy of sustainable development. These large-scale farms are also more resilient during industry downturns.

During the past five years the total number of dairy cows in China remained relatively stable. Due to the strong growth of raw milk demand, development of scaled dairy farms and favourable supporting polices, the total number of dairy cows is expected to steadily grow at a CAGR of 2.2% from 2020 to reach approximately 11.6 million in 2025.

In terms of the number of dairy cows, the proportion of large-scale dairy farms grew rapidly in China. Dairy cows in large-scale dairy farms with dairy cows more than 1,000 have gained a leap in share from 28.8% in 2016 to 43.3% in 2020, and is expected to gain a dominant market position of 52.6% in 2025.

Set forth below is a chart indicating the number of dairy cows by the scale of dairy farms in China for the periods indicated.



Dairy Cow Numbers by the Scale of Dairy Farms (China), 2016 vs. 2020 vs. 2025E

Source: National Bureau of Statistics, Ministry of Agriculture and Rural Affairs of the PRC, Frost & Sullivan

Health of Dairy Cows

The care of dairy cows is an important part of successful dairy farming. Inflammatory conditions (e.g. postpartum metritis and mastitis) frequently affect dairy cows. In particular, morbidity of mastitis is a significant measure of the quality of dairy cows and dairy farms.

In 2021, the death rate of our dairy cows and morbidity due to mastitis of our milking cows was generally lower than the average levels of selected scaled dairy farms.

Set forth below is a table indicating the quality comparison of dairy cows in China in 2021.

Quality Comparison of Dairy Cows, 2021

Major Companies	Death Rate of Dairy Cows 60 days after delivery (%) ⁽³⁾	Death Rate of Dairy Cows 30 days after delivery (%) ⁽³⁾	Death Rate of Dairy Cows (%) ⁽⁴⁾	Morbidity of Mastitis (乳房炎) of Milking Cows (%) ⁽⁵⁾	
The Group ⁽¹⁾	6.2%	4.3%	5.0%	5.3%	
Average of selected scaled dairy farms ⁽²⁾	7.2%	5.2%	6.2%	18.2%	

Notes:

- (1) As of 2021, provided by the Group.
- (2) Representing the average data in 2021 of selected scaled dairy farms (規模化牧場) with dairy cows no less than 100 by the PRC Academy of Agricultural Sciences.
- (3) Death rate of dairy cows 60/30 days after delivery is equal to the proportion of number of dairy cows died within 60/30 days after delivery occupying total number of dairy cows after delivery.
- (4) Death rate of dairy cows is equal to the proportion of number of death dairy cows occupying total number of dairy cows annually.
- (5) Morbidity of mastitis of milking cows is equal to the proportion of milking cows with mastitis occupying total number of milking cows annually.

Source: PRC Academy of Agricultural Sciences, Frost & Sullivan

Key Growth Drivers of the Raw Milk Supply Industry in China

- Growing demand in the downstream dairy product market. Due to Chinese consumers' increasing demand for safe and diverse dairy products, dairy product manufacturers have strong motivation to strengthen quality control measures. These dairy product manufacturers source high-quality raw milk from large-scale dairy farms that can provide a stable and reliable supply of high-quality raw milk. The growing demand in China's downstream dairy product market also represents a significant market potential for industry participants in the upstream dairy value chain, especially leading large-scale dairy farms.
- Increasing number of large-scale farms and industry concentration rate. China's dairy farming industry has been undergoing transformation by eliminating separated small-scale dairy farms and integrating medium- and large-scale dairy farms. The exit of small-scale dairy farms and the prevalence of large-scale dairy farms has further driven economies of scale of the entire dairy farming industry, resulting in a higher industry concentration rate and milk yield.
- Advanced dairy farm management and improved operational efficiency. Increased adoption of modern management procedures and cutting-edge technologies have enabled dairy farms in China to streamline and optimise their business operations. This has resulted in improved operational efficiency, lower costs, enhanced milk quality and increased annualised average milk yield per milkable cow.

Favourable government policies. As our operating subsidiaries are incorporated in the PRC and our dairy and beef cattle farming operations are conducted in the PRC, we are subject to PRC laws and regulations. Accordingly, we also benefit from the favourable PRC government policies in relation to the dairy and beef cattle industries. The Chinese government encourages large-scale dairy farms and scaled dairy farms to closely control the hygiene and nutrition of their dairy cows and to improve the quality of raw milk. Specifically, the State Council of the PRC promulgated the "Opinions on promoting the Revitalisation of Dairy Industry and ensuring the Quality and Safety of Dairy products" (關於推進奶業振興保障乳品質量安全的意見), which calls for large-scale dairy farming operations and self-sufficiency of milk supply of more than 70%. Moreover, in the end of 2020, the State Administration for Market Regulation announced the "Action Plan for Improving Quality and Safety of Dairy Products" (乳製品質量安全提升行動方案), which regulated the safety control requirement on the raw materials of dairy products. These favourable policies have provided support for the development of China's dairy farming industry for the long-term.

Key Market Trends of the Raw Milk Supply Industry in China

- Large-scale dairy farms as an emerging trend. Advanced technologies and standardised management procedures have enabled large-scale dairy farms with more than 1,000 dairy cows to produce large quantities of safe and high-quality raw milk. The PRC government has also introduced favourable regulations and policies, such as the "Plans for Rectifying and Promoting the Dairy Industry" (奶業整頓和振興規劃綱要), to encourage the development of large-scale dairy farms. It is expected that large-scale dairy farms will continue to lead the trends of the raw milk supply industry. Given the highly fragmented nature in the dairy farming industry, industrial consolidation is expected to continue. This represents significant market potential for industry participants, especially leading large-scale dairy farms, in both the upstream and midstream dairy value chain.
- *Higher milk yield and quality.* Dairy companies are expected to become more cautious when choosing raw milk suppliers due to consumers' concerns about the safety and quality of dairy products. Dairy farm operators which have limited capacity and produce low-quality raw milk are expected to be eliminated gradually. Moreover, the increasing proportion of scaled dairy farms is expected to result in the improvement of milk yield and quality.
- Intelligent dairy farm management. Scaled business operation makes it possible for large-scale dairy farms in China to achieve intelligent management of their dairy farms in a cost-effective manner, resulting in improved milk yield and quality. Intelligent management enables industry participants in the dairy value chain, including dairy farms, to obtain more comprehensive data and technology support. This is expected to improve dairy farms' operational efficiency in various aspects.

Competitive Landscape of the Raw Milk Supply Industry in China

The raw milk supply market in China is highly fragmented. The top five players in China accounted for aggregate market share of 15.0% in terms of the production of raw milk in 2021. We were the 5th largest dairy farm operator in terms of raw milk production in 2021.

Set forth below are the top five dairy farm operators in terms of production of raw milk in China in 2021.

Top Five Dairy Farm Operators in Terms of Production of Raw Milk (China), 2021

Ranking	Dairy Farming Companies	Production of Raw Milk (Thousand Tons)	Market Share (%)
1	Youran Dairy	1,989.7	5.4%
2	China Modern Dairy	1,610.0	4.4%
3	Company C	658.0	1.8%
4	Company E	640.0	1.7%
5	The Group	638.8	1.7%
	Top five	5,536.5	15.0%
	Total	36,830.0	100.0%

Notes:

- (1) The Group's data is provided by the Group.
- (2) Company C is a subsidiary owned by a domestic private dairy products company, founded in 2009 and headquartered in Shenyang, and principally provides raw milk and liquid milk products. The registered capital of Company C is RMB1.5 billion.
- (3) Company E is a domestic subsidiary owned by a private dairy products company, founded in 2013 and headquartered in Shijiazhuang, Hebei Province, and mainly provides raw milk product. The registered capital of Company E is RMB2.1 billion.

Source: Frost & Sullivan

The top five players in China accounted for aggregate market share of 14.1% in terms of the sales volume of raw milk in 2021. We were the 3rd largest dairy farm operator in terms of the sales volume of raw milk in 2021, with a market share of 1.6%.

Set forth below are the top five dairy farm operators in terms of the sales volume of raw milk in 2021.

Top Five Dairy Farm Operators in Terms of the Sales Volume of Raw Milk (China), 2021

Ranking	Dairy Farming Companies	Sales Volume of Raw Milk (Thousand Tons)	Market Share (%)
1	Youran Dairy	1,947.2	5.3%
2	China Modern Dairy	1,586.9	4.3%
3	The Group	589.8	1.6%
4	China Shengmu	584.8	1.6%
5	Company F	496.8	1.3%
	Top five	5,205.5	14.1%
	Total	36,830.0	100.0%

Notes:

- (1) The Group's data is provided by the Group.
- (2) Company F is a domestic subsidiary owned by a state-owned group, founded in 2001 and headquartered in Beijing, and principally provides raw milk and breeding products. The registered capital of Company F is RMB1.7 billion.

Source: Frost & Sullivan

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INDUSTRY OVERVIEW

The top five players in China accounted for aggregate market share of 15.5% in terms of the sales value of raw milk in 2021. We were the 4th largest dairy farm operator in terms of the sales value of raw milk in 2021, with a market share of 1.8%.

Set forth below are the top five dairy farm operators in terms of the sales value of raw milk in 2021.

Top Five Dairy Farm Operators in Terms of the Sales Value of Raw Milk (China), 2021

Ranking	Dairy Farming Companies	Sales Value of Raw Milk (RMB Million)	Market Share (%)
1	Youran Dairy	9,537.8	6.0%
2	China Modern Dairy	7,005.0	4.4%
3	China Shengmu	2,984.6	1.9%
4	The Group	2,824.2	1.8%
5	Company F	2,220.9	1.4%
	Top five	24,572.5	15.5%
	Total	158,120.4	100.0%

Notes:

(1) The Group's data is provided by the Group.

(2) Company F is a domestic subsidiary owned by a state-owned group, founded in 2001 and headquartered in Beijing, and principally provides raw milk and breeding products. The registered capital of Company F is RMB1.7 billion.

Source: Frost & Sullivan

In China, most of the leading dairy farm operators have their controlling shareholders among their five largest customers.

Large-scale dairy farms generally have higher milk yield due to their significant operational efficiency. According to Frost & Sullivan, we have been ranked No.1 in terms of the average milk yield per milkable cow for 7 consecutive years in China, from 2015 to 2021. We achieved a higher average milk yield per milkable cow of 12.7 tons per annum in 2021, compared with the industry average of 8.7 tons per annum and average for top five dairy farm operators of 11.5 tons per annum in terms of annualised average milk yield per milkable cow.

Set forth below are the top five dairy farm operators in terms of annualised average milk yield per milkable cow in China from 2015 to 2021.

Ranking	Dairy Farming Companies	Average Milk Yield per Milkable Cow in 2021 (Tons per annum)
1	The Group	12.7
2	Company E	11.5
3	Company F	11.5
4	China Modern Dairy	11.3
5	Youran Dairy	10.9
5	YuanShengTai Dairy Farm	10.9

Тор	Five	Dairy	Farm	Operators	in '	Ferms o	f Average	Milk	Yield	per
			Milk	kable Cow	(Chi	ina), 201	15-2021			

Dairy Farming	Average Milk Yield per Milkable Cow (Tons per annum)								Ran	king		
Companies	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
The Group	11.6	11.8	12.2	12.5	12.6	12.8	1	1	1	1	1	1
Company H	9.7	9.8	10.4	11.7	10.5	11.6	4	4	3	2	6	3
Company I	N/A	N/A	N/A	11.0	11.6	12.0	N/A	N/A	N/A	3	2	2
Company E	N/A	N/A	N/A	11.0	11.0	11.0	N/A	N/A	N/A	3	3	6
Company G	10.1	10.1	9.9	10.5	10.8	11.0	3	3	4	5	4	6
Company F	N/A	N/A	N/A	10.0	10.4	11.2	N/A	N/A	N/A	7	8	4
Company B	8.1	9.5	9.9	10.1	10.6	11.1	5	5	4	6	5	5
Company L	10.7	10.8	10.9	N/A	N/A	N/A	2	2	2	N/A	N/A	N/A

Notes:

- (1) The Group's data is provided by the Group.
- (2) Company E is a domestic subsidiary owned by a private dairy products company, founded in 2013 and headquartered in Shijiazhuang, Hebei Province, and mainly provides raw milk product. The registered capital of Company E is RMB2.1 billion.
- (3) Company F is a domestic subsidiary owned by a state-owned group, founded in 2001 and headquartered in Beijing, and principally provides raw milk and breeding products. The registered capital of Company F is RMB1.7 billion.
- (4) Company G is an A-share listed domestic company, founded in 1996 and headquartered in Shanghai. It is one of the major regional dairy companies in China and has many series of dairy products. The registered capital of Company G is RMB1.4 billion, and the revenue of Company G in 2021 was RMB29.2 billion.
- (5) Company H is a private domestic company, founded in 2003 and headquartered in Beijing. It is principally engaged in the operation of dairy farms, import trading of livestock, raw milk production and import of dairy cows.

- (6) Company I is a domestic subsidiary owned by a Hong Kong listed company, founded in 2012 and headquartered in Inner Mongolia. It principally provides raw milk. The registered capital of Company I is RMB1.5 billion.
- (7) Company L is a private domestic company, founded in 2007 and headquartered in Tianjin. It mainly provides raw milk. The registered capital of Company L is RMB0.4 billion.

Source: Frost & Sullivan

In 2019, 2020 and 2021, the Group had six, seven and five dairy farms ranked among the top ten large-scale dairy farms with over 10,000 heads of dairy cows in China in terms of annualised average milk yield per milkable cow.

Set forth below is a table indicating individual dairy farms with over 10,000 heads of dairy cows in terms of average milk yield per milkable cow in China from 2019 to 2021.

Individual Dairy Farm with over 10,000 heads of dairy cows in terms of Average Milk Yield per Milkable Cow (China), 2019-2021

Ranking	Individual Dairy Fa cows in terms of Av	Farm with over 10,000 heads of dairy Average Milk Yield per Milkable Cow		
	2019	2020	2021	
1	0	0	Company E	
2	0	0	Youran Dairy	
3	Company N ⁽²⁾	0	Youran Dairy	
4	Δ	Δ	0	
5	\triangle	Company H	0	
6	\triangle	\triangle	0	
7	Company H	Δ	Δ	
8	China Modern Dairy	Company H	Youran Dairy	
9			China Modern Dairy	
10	Company O ⁽³⁾	Company O	\triangle	

Notes:

- (2) Company N is a subsidiary owned by a domestic private dairy products company, founded in 2016 and headquartered in Hangzhou, Zhejiang Province, and mainly provides liquid milk and dry dairy products. The registered capital of Company N is RMB364 million.
- (3) Company O is a subsidiary owned by a domestic private dairy products company, founded in 2015 and headquartered in Chongqing, and mainly provides liquid milk and dry dairy products products. The registered capital of Company O is RMB195 million.

Source: Frost & Sullivan

⁽¹⁾ The Group's data is provided by the Group.

Feed Ingredient Price

Concentrated feed for dairy cows primarily consists of corn, soybean meal and alfalfa. The price of concentrated feed may be affected by various external factors, including (i) climate and environmental conditions (e.g. pest plague), (ii) commodity market prices and (iii) government policies.

- *Corn.* The average market price of corn declined from RMB2,016 per ton in 2016 to RMB1,907 per ton in 2017. Thereafter, the average market price recovered gradually and reached RMB2,835 per ton in 2021, representing a CAGR of 7.1% from 2016 to 2021. In the future, the average market price of corn will slightly increase or remain stable, partly because of the strong downstream demand.
- Soybean meal. The average market price of soybean meal remained relatively steady at RMB3,298 per ton in 2016 and RMB3,641 per ton in 2021, representing a CAGR of 2.0%. In the future, the average market price of soybean meal will slightly increase or remain stable, partly because of the strong downstream demand.

Set forth below is a chart indicating the average market price of corn and soybean meal in China from 2016 to 2021.



Average Market Price of Corn and Soybean Meal (China), 2016-2021

Source: Ministry of Agriculture and Rural Affairs of the PRC

Alfalfa. In accordance with the classification standards of alfalfa hay quality in China, most of the alfalfa imported into China is of "premium" or "primary" grades, while most domestically grown alfalfa would be of "primary" or "secondary" grades. As a result, dairy farms usually need to pay higher prices for import alfalfa, which constitutes a significant component of the raw milk production costs for domestic dairy farms. In general, due to capital restrictions and storage conditions, it is difficult for domestic enterprises to achieve a steady supply of alfalfa hay throughout the year. The price of imported alfalfa hay and domestic alfalfa hay increased from RMB2,044 per ton and RMB1,750 per ton in 2016 to RMB2,463 and RMB2,208 in 2021. In July 2018, the Chinese government increased tariffs of goods originating in the United States, including raising tariffs on alfalfa hay from 7% to 32%. This led to higher prices for imported alfalfa hay and higher costs for the dairy farming industry. In September 2020,

China's Tariff Commission of the State Council announced that it would exempt the additional tariffs on imported alfalfa hay and refund the previous additional tariffs of 25%. In 2021, the volume and value of imported alfalfa hay both increased dramatically, partly because of the lack of domestic supply and strong downstream demand. In the future, tariffs on imported alfalfa hay are expected to remain stable, leading to a steady growth in the import volume of alfalfa hay and a cost saving to China's dairy farming industry. In addition, further improvement in the quality of domestic alfalfa hay is expected to narrow the gap between imported alfalfa and domestic alfalfa.

Set forth below is a chart indicating the price of domestic alfalfa hay and imported alfalfa hay in China from 2016 to 2021.



Price of Domestic Alfalfa Hay and Imported Alfalfa Hay (China), 2016-2021

Notes:

(1) Domestic alfalfa hay price refers to the exit factory price excluding transportation expense.

(2) Imported alfalfa hay price refer to Cost, Insurance and Freight (CIF) price of imported alfalfa hay.

Source: China Customs, Frost & Sullivan

THE BEEF CATTLE INDUSTRY IN CHINA

Overview

With the rapid development of the economy and the increase of per capita disposable income, Chinese consumers' willingness to pay for healthy protein is increasingly expanding the retail sales value of beef products. Chinese consumers' improved health consciousness and consumption upgrades have boosted the downstream market demand for high-protein low fat meats. The consumption and unit price of beef has maintained significant growth. As a result, the retail sales value of beef in China experienced a strong growth from RMB443.4 billion in 2016 to RMB845.1 billion in 2021, representing a CAGR of 13.8%, and is expected to further grow at a CAGR of 7.1% to RMB1,192.8 billion in 2026.

Set forth below is a chart indicating the retail sales value of beef in China for the periods indicated.



Retail Sales Value of Beef (China), 2016-2026E

Source: National Bureau of Statistics, Ministry of Agriculture and Rural Affairs of the PRC, General Administration of Customs, Frost & Sullivan

Meat consumption in China is expected to rise as disposable income increases. According to the Organisation for Economic Co-operation Development and the Food and Agriculture Organisation (OECD-FAO), the major categories of meat consumption in China refers to beef and veal (beef), pig meat (pork), poultry meat (poultry) and sheep meat (mutton). The beef market has grown the fastest among all other meats and its contribution to meat consumption is expected to grow from 12.3% in 2020 to 15.0% in 2025.

Set forth below is a chart indicating the meat consumption per capita by major category in China for the periods indicated.



Meat Consumption Per Capita by Major Category (China), 2016-2025E

Source: National Bureau of Statistics, General Administration of Customs, OECD-FAO, Frost & Sullivan

Beef consumption per capita in China was 6.3 kilograms per annum in 2020, which was only 23.9% of that in the U.S., and was also much lower than that in certain Asian countries with similar diet habits, such as South Korea and Japan. In 2020, beef consumption per capita was 26.4, 11.3 and 7.4 kilograms per annum in the U.S., South Korea and Japan. The relatively low level of beef consumption in China highlights a huge potential for future growth. Driven by the growing demand for high quality animal protein, the per capita consumption of beef is expected to grow at a CAGR of 6.4% to 8.6 kilograms in 2025.

Set forth below is a chart indicating the beef consumption per capita for the countries indicated from 2016 to 2025.





Source: National Bureau of Statistics, General Administration of Customs, OECD-FAO, USDA, Frost & Sullivan

Supply and Demand of Beef in China

On the demand side, China's beef consumption has grown fast over the past few years, from 6.3 million tons in 2016 to 9.3 million tons in 2021, representing a CAGR of 8.1%. Due to the increasing demand for beef products from consumers, China's beef consumption is expected to increase from 9.3 million tons in 2021 to 11.8 million tons in 2026, representing a CAGR of 4.9%.

On the supply side, China's beef production has maintained a steady growth from 6.2 million tons in 2016 to 7.0 million tons in 2021, representing a CAGR of 2.5%. Beef production is expected to increase due to (i) favourable government policy, (ii) strong demand of downstream consumers and (iii) leading beef cattle farming companies' efforts to expand production scale. In 2026, China's beef production is expected to increase from 7.0 million tons to 8.3 million tons, representing a CAGR of 3.5%.

The demand for beef consumption in China has continued to outstrip beef production over the years. The shortfall in beef production has continued to grow larger and is expected to reach approximately 3.5 million tons in 2026.

Set forth below is a chart indicating the supply and demand of beef in China from 2016 to 2026.



Supply and Demand of Beef (China), 2016-2026E

Source: National Bureau of Statistics, General Administration of Customs, Frost & Sullivan

Beef Cattle and Beef Price

The average price of beef cattle in China has mainly increased due to the rising demand for beef and the rising cost of local beef production. The average wholesale price of beef in China has also maintained an upward momentum in recent years, with the monthly average wholesale price rising from RMB62.1 per kilogramme in January 2016 to RMB86.5 per kilogramme in December 2021. Moreover, due to consumers' growing demand for healthy and high-quality protein such as beef, consumers' rising health awareness, as well as the rising cost of cattle feed and farming, the average wholesale prices of beef cattle and beef are also expected to increase.

Set forth below is the monthly average wholesale price of beef cattle and beef in China from January 2016 to August 2022.



Monthly Average Wholesale Price of Beef Cattle and Beef (China), January 2016-August 2022

Source: National Bureau of Statistics, Ministry of Agriculture and Rural Affairs of the PRC

Key Growth Drivers of the Beef Cattle Industry in China

- *Increasing disposable income*. The growing disposable income per capita has had a positive effect on Chinese residents' purchasing power. This is expected to benefit the growth of beef consumption in China.
- Increased per capita consumption of beef. Demand for beef products is expected to continue to grow due to improvements in consumers' standard of living, increased demand for healthy lifestyle and dietary habits, as well as increased consumption of nutritious high-quality protein. In addition, leading industry participants have also become committed to developing various beef products (e.g. premium quality beef) with various flavours to meet the diverse preferences of different consumer groups. This is expected to further drive the consumption of beef and promote the growth of the beef product market.
- Consumers' changing dietary habits drive the transformation of the beef product market. Younger generations, especially Generation Z (born during 1995-2010), have gradually become the mainstream consumers of beef products. These consumers' dietary habits are different to those of the older and traditional consumers. For example, the younger generation consumers are more health conscious and have different requirements for health and food tastes. Beef is considered as a healthy, nutritious, and high-quality source of protein. Accordingly, beef, with its healthy characteristics, caters well to the younger generation consumers' preferences. Moreover, changes in Chinese consumers' preferences for beef over other meats such as pork, is also expected to further stimulate the growth of the beef market.
- *Emergence of more beef-orientated restaurants and brands.* There has been rapid growth of the catering industry, steak houses and hotpot restaurants (e.g. Chaoshan beef hotpot) in China. Restaurants are also increasingly advertising beef dishes as one of the main dishes. This environment is expected to further stimulate market growth.
- Growth-oriented government policy. The Ministry of Agriculture and Rural Affairs of the PRC issued livestock self-sufficiency goals, namely the "Five-year Action Plan to Promote the Development of Beef Cattle and Sheep Production" (推進肉牛肉羊生產發展五年行動方案) ("**Plan**"), in April 2021. According to the Plan, beef production and supply shall be increased through multiple channels; the number of basic female livestock shall be increased, and the production efficiency shall be upgraded with the combination of grass-livestock balance and focusing on the stabilisation of the quantity and improvement of the quality in pastoral areas. By 2025, the self-sufficiency rate of beef cattle and sheep shall be maintained at about 85%; the output of beef cattle and sheep shall be stabilised at around 6.8 million tons and 5 million tons respectively; and the proportion of large-scale beef cattle and sheep breeding shall reach 30% and 50%, respectively. In addition, on the basis of consolidating and upgrading traditional major production areas, the Plan seeks to explore potential areas for development, expand space for increased production and increase beef production and supply through multiple channels.

Key Market Trends of the Beef Cattle Industry in China

• *More diversified beef product categories.* An increasing number of high-quality and premium beef products (e.g. grass- and grain-fed beef, wild organic beef) have emerged to meet the differentiated needs of consumers. The quality of beef products is expected to improve with the development of R&D and in-depth education of enterprise marketing to consumers. As a result, it is expected that these diverse beef products will continue to gain popularity with consumers.

- *More scientific operations and management.* Beef cattle farming companies are adopting additional scientific operations and investing further resources in R&D and cutting-edge technologies. Intelligent management of a beef cattle farm is expected to provide more comprehensive data and technical support for the government and farming companies. Accordingly, beef cattle farming companies can use these management systems and available data to optimise their business operations.
- *Rising market concentration.* The beef cattle farming market in China is highly fragmented. In the coming years, large-scale beef cattle farming companies are expected to rapidly expand their market share with relatively low cost and advanced technologies.
- *Consumer demand for safe and high-quality products.* Chinese consumers increasingly select foods based on food safety and quality. As a result, beef cattle farming companies are using new technologies and applying efficient management methods in their farming operations to produce safer products.

Competitive Landscape of the Beef Cattle Industry in China

The beef cattle market in China is highly fragmented. The top fifteen market players accounted for only 0.76% of the market share in terms of number of beef cattle as of 31 December 2021. We were the eleventh largest beef cattle farming company in China in terms of the number of beef cattle, with a market share of 0.03%.

The main breeds of beef cattle in China can be divided into imported breeds and local breeds. The imported breeds mainly include Holstein, Simmental and Angus. In China, Holstein is bred as dual-purpose cattle, bred for both dairy cattle and beef cattle. In recent years, the meat production of Holstein beef cattle has improved significantly in various areas of China.

Set forth below is a table indicating the top fifteen beef cattle farming companies in terms of the number of beef cattle in China as of 31 December 2021.

Ranking	Beef cattle farming companies	Number of beef cattle (thousand)	Market share (%)
1	Company a	100	.0 0.13%
2	Company b	96	0.12%
3	Company c	45	.0 0.06%
4	Company d	43	.0 0.05%
5	Company e	40	.0 0.05%
6	Company f	36	.0 0.05%
6	Company g	36	.0 0.05%
8	Company h	30	0.0 0.04%
9	Company i	29	.0 0.04%
9	Company j	29	.0 0.04%
11	The Group	25	.4 0.03%
12	Company k	20	.0 0.03%
12	Company 1	20	0.03%
14	Company m	18	.0 0.02%
14	Company n	18	.0 0.02%
	Top 15	58	5.4 0.76%
	Total	78,45	0.0 100.0%

Ranking and Market Share of Beef Cattle Farming Companies in Terms of Number of Beef Cattle, 2021

Notes:

- 1. The Group's data is provided by the Group.
- 2. Company a is a domestic private group, founded in 2009 and headquartered in Chongqing. It is principally engaged in beef cattle operations including fattening and slaughtering, and provides various beef products. The registered capital of Company a is RMB280.0 million.
- 3. Company b is a domestic private company, founded in 2012 and headquartered in Urumqi, Xinjiang. It is principally engaged in beef cattle operations including fattening and slaughtering, and provides various beef products. The registered capital of Company b is RMB723.0 million.
- 4. Company c is a domestic private company, founded in 2013 and headquartered in Bole, Xinjiang. It is principally engaged in beef cattle operations including breeding, fattening, and slaughtering, and provides various beef products. The registered capital of Company c is RMB214.0 million.
- 5. Company d is a domestic private company, founded in 2019 and headquartered in Kunming, Yunnan. It is principally engaged in livestock and poultry operations. The registered capital of Company d is RMB771.0 million.
- 6. Company e is a domestic private company, founded in 2007 and headquartered in Xilingol League, Inner Mongolia. It is principally engaged in beef cattle farming and fattening. The registered capital of Company e is RMB80.0 million.
- 7. Company f is a domestic private company, founded in 2004 and headquartered in Shijiazhuang, Hebei. It is principally engaged in beef cattle operations including breeding, fattening, and slaughtering, and provides various beef products. The registered capital of Company f is RMB100.0 million.
- 8. Company g is a domestic private company, founded in 2018 and headquartered in Kashi, Xinjiang. It is principally engaged in beef cattle operations including fattening and slaughtering, and provides various beef products. The registered capital of Company g is RMB703.0 million.
- 9. Company h is a domestic private company, founded in 2009 and headquartered in Qiqihar, Heilongjiang. It is principally engaged in beef cattle operations including breeding, fattening and slaughtering, and provides various beef products. The registered capital of Company h is RMB157.0 million.
- 10. Company i is a domestic private company, founded in 2016 and headquartered in Xing'an League, Inner Mongolia. It is principally engaged in beef cattle operations including fattening and slaughtering, and provides various beef products. The registered capital of Company i is RMB190.0 million.
- 11. Company j is a domestic private company, founded in 2016 and headquartered in Yili, Xinjiang. It is principally engaged in beef cattle farming business. The registered capital of Company j is RMB220.0 million.
- 12. Company k is a domestic private company, founded in 2016 and headquartered in Tianjin. It is principally engaged in grass planting and beef cattle farming. The registered capital of Company k is RMB5.0 million.
- 13. Company 1 is a domestic private company, founded in 1998 and headquartered in Jilin, Changchun. It is principally engaged in beef cattle operations including fattening and slaughtering, and provides various beef products. The registered capital of Company 1 is RMB100.0 million.
- 14. Company m is a domestic subsidiary owned by an A-share listed company, founded in 1994 and headquartered in Beijing. It is principally engaged in beef cattle operations including beef cattle farming, fattening, slaughtering, and provides various beef products. The registered capital of Company m is RMB850.0 million.
- 15. Company n is a domestic private company, founded in 2010 and headquartered in Horqin, Inner Mongolia. It is principally engaged in beef cattle operations including fattening and slaughtering, and provides various beef products. The registered capital of Company n is RMB598.0 million.

Entry Barriers of Dairy Farming Industry and Beef Cattle Farming Industry

• *Capital investment.* Both dairy farming industry and beef cattle farming industry are highly capital-intensive, which require significant investment in the initial stages for establishing self-operated dairy farms and beef cattle feedlots, acquiring high-quality dairy cows and beef cattle, building up infrastructure and management system, recruiting professional employees and expanding distribution channels. Furthermore, both industries also require continuous investment on health monitoring and control of dairy cows and beef cattle, including high feeding costs.

- Quality control of raw milk/beef. The PRC government has released a series of quality standards to measure the quality of raw milk, such as fat content, protein content, aerobic plate count, and somatic cell count. Compared to small dairy farms with less than 100 heads of dairy cows, large-scale dairy farms can provide better environment and high-quality forage for dairy cows. Leading dairy farming companies with many large-scale dairy farms are continuously improving the quality of raw milk, with strong technology capability as well as fund support, which in the meanwhile sets a high entry barrier for new entrants.
- *Talent barrier.* Large-scale cattle farming requires a large number of experienced technical personnel and management personnel who have the expertise in cattle feeding and disease prevention and control. Cultivating technical personnel and accumulating experience takes time, which also sets an entry barrier for new entrants.
- *Management capability.* Experienced management is crucial to the dairy farming and beef cattle farming business as they help to ensure the high quality of dairy cows and beef cattle, maintain highly efficient production and operation process, make proper strategic decisions on future development and expansion of business. Moreover, with consumers' changing demand for the flavour of dairy products and beef products, the management also need to be capable of innovation in order to upgrade and improve the quality of the products. It would be more difficult for new entrants with management of limited industry experience to meet these challenges.
- Stable downstream customers. Top dairy farming companies have established strong relationships with their customers, because they are mainly dependent on their largest shareholders who are also their largest downstream customers. For beef cattle farming industry, customers mainly include enterprise clients among chain catering brands/restaurants, supermarkets, e-commerce platforms. It is necessary to build a stable sales channel by maintaining a strong relationship with downstream customers and establishing a sustainable business operation in the long-run. Therefore, it is challenging for new entrants to win over a stable and reliable downstream customer with a good reputation and trust in the short term.

Market Challenges of Dairy Farming Industry and Beef Cattle Farming Industry

- **Disease risk.** Cattle farming has always faced the threat of diseases, including Foot-and-mouth Disease, Mad Cow Disease etc. Any major outbreaks of such animal diseases will impact consumer confidence, leading to shrinking sales of processed raw milk and beef products, which will have a more significant impact on the entire industry chain.
- *Environmental protection.* Animal husbandry has been regulated by various environmental laws and regulations which are constantly evolving in China. For example, an environmental impact assessment must be carried out before any new feedlot could be constructed, and upon completion of the construction, the competent environmental protection agency will inspect ecological facilities. Furthermore, the manure and wastewater generated from the procedures must be processed and disposed of in the appropriate ways during the operations of feedlots. Compliance with all applicable requirements require significant expenditure and substantial management attention.

• *Import trade restrictions.* Another challenge to the beef cattle industry is the risk of import trade restrictions. The outbreak of COVID-19 has had a massive impact on international trade. To prevent and control the epidemic, China has adjusted trade policies to restrict the import of goods for some countries. China's beef consumption is partly dependent on import beef from countries, including Brazil, Argentina, Uruguay, New Zealand and Australia. Thus, the uncertainty of the epidemic abroad will limit the import trade of beef.