

# China Modern Dairy Holdings Ltd.

中國現代牧業控股有限公司

Stock Code: 1117



ENVIRONMENTAL, SOCIAL AND  
GOVERNANCE REPORT  
**2016**

# About this Report

## REPORTING COVERAGE

Organizational Scope: The report covers all relevant information of China Modern Dairy Holdings Ltd. and its subsidiaries.

Time Range: From January 1 to December 31, 2016

Publication Cycle: This report is published annually.

## REPORT COMPILATION PRINCIPLES

The Report is compiled in accordance with *Environmental, Social and Governance Reporting Guide* released by the Stock Exchange of Hong Kong, and the *Sustainability Reporting Guidelines (G4)* and its supplement for food processing industry from the Global Reporting Initiative (GRI).

## DATA SOURCE

All the data in the report are taken from official documents and statistical reports of China Modern Dairy Holdings Ltd.

## REFERENCE

In order to facilitate the presentation and reading, the words “we”, “Modern Dairy” and “the Company” refer to China Modern Dairy Holdings Ltd. Unless otherwise stated, the currency unit “yuan” in the report refers to Chinese Yuan.

## ACCESS TO THE REPORT

You may download our English- or Chinese-language PDF report at <http://www.moderndairyir.com>

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Modern Dairy has been sharing common development with China's large-scale breeding industry and dairy industry. Against the background that China's economy has achieved rapid growth over past eleven years, Modern Dairy has started from scratch and experienced the development from small to big business. On the way to the development, we have worked to make strenuous innovation while following the laws of the industry, persisting in unique development mode and holding fast to the core of corporate culture featured with "Honesty, Integrity, and Effectiveness". At the very beginning of our business, our idea of "large-scale breeding" was also questioned in the industry. However, we prevailed over all dissenting views, in hope to change the development mode of "putting the production of milk before cow breeding". While clearing up the sources and getting to the bottom of problems, we have steered the industry towards a path of "putting cow breeding before the production of milk". In the process of production and management, we promote intensive, large-scale and scientific breeding mode and our production mode integrated with planting, breeding and product processing. Practices have proven that we have completed "the first mile" in the transformation and upgrading of dairy industry.

In 2016, the daily milk yield of a single cow exceeded 35kg on average for the first time on Maanshan Farm, which means the Farm has significantly increased its efficiency and further improved its ability in internal cost management. Modern Dairy and Han Chunlin, Vice President of the Company, were awarded the outstanding innovation team prize and individual prize for agricultural science and technology achievements by the Ministry of Agriculture. Taking advantage of the high-quality raw milk from our 26 proprietary farms, we have launched our own low-temperature milk products. In May, Modern Dairy made it to the Monde Selection podium for the third time, winning the gold prize for three consecutive years as well as the international trophy for high quality on behalf of Chinese dairy industry. In October, our pasteurized milk and Ultra Heat Treated (UHT) sterilized milk passed the acceptance of "High-quality Milk Project" at the same time, becoming the first dairy company to have received such honor. This fact has once again demonstrated our excellent production capacity and product quality.....the full harvest over the past year has helped us earn the respect of our peers, the trust of consumers and the world's attention. In the meanwhile, we have recognized the path we adhered to and the idea we upheld are correct and that we have the strength and courage to create new achievement.

Today, China's economic development is already under the "new normal", in the context of which China will take structural adjustment as its focus of reform and keep opening its economy. With the better prospect of China's economy and the steady increase in the per capita consumption level of urban residents, the market demand of milk is also increasing. What's more, the effective industry regulations and the standardized development of dairy industry have steadily improved consumer's confidence. Although faced with the pressure from home and abroad, Modern Dairy still adheres to its own "innovation gene" and persists in its unique production mode of "integration of planting, breeding and processing" and "zero-distance 2 hours" to produce the distinctive quality-assured milk. While fully meeting the demand of downstream markets and consumers for high-quality dairy products, we research and develop new products and upgrade the downstream product structure to bring more quality milk to ordinary people, to their dining table and even into their hearts. We hope our products will appear at every street of each city and that more and more people will be familiar with the meaning of our name. We would also like to turn Modern Dairy's brand into a social and public brand.

We are willing to give play to the cooperative and leading effect of farms through our own efforts, providing employment opportunities for farmers, promoting the development of small businesses, making sincere dedication to charity and creating prosperity together. While working together with our employees to seek common development, we cherish their spirit of innovation, encourage them to seek new ideas for the better development of the company and help them achieve their personal growth and development. Besides, we will continue to pursue the comprehensive utilization of agricultural waste and the continuous optimization of environment to create a new pattern for a healthier development of modern agriculture and livestock breeding. While improving the internal management, we will strive for the support from government, industry associations and research institutions, making cooperation with them to achieve positive interaction with the community, environment, nature and society. By doing so, we will shoulder the responsibilities for solving the risks of food safety, the crisis of epidemic prevention in the industry, and the social and environmental crisis.

The food industry and the people's livelihood and solidarity are of close concern to each other. Even if we have made certain progress and achievements, we should remember the dedication and hard work of Modern Dairy's entrepreneurs, who have offered their keen insight into the development of China's dairy, made intrepid exploration of dairy's future and showed their loyalty to the mission of the cause. We should also bear in mind our objectives of "Creating the most advanced farms and producing the best quality milk" and our determination of "Working towards better tomorrow". Over the course of 11 years, we have become wiser and stronger. With our initial determination in mind, we will march forward with confidence and bravery.

**Gao Lina**

May 23, 2017

### January

In January, 2016, the daily milk yield of a single cow exceeded 35kg on average for the first time on Mananshan Farm.

On January 10<sup>th</sup>, 2016, Modern Dairy and Han Chunlin, Vice President of the Company, were awarded the outstanding innovation team prize and individual prize for agricultural science and technology achievements by the Ministry of Agriculture.

### May

On May 30<sup>th</sup>, 2016, Modern Dairy was awarded gold prize in the food category by Monde Selection for the third time and also won the international high-quality trophy at the same time.

On April 6<sup>th</sup>, 2016, our low-temperature products were launched in the markets.

### April

In July, 2016, Modern Dairy was awarded several awards by Institutional Investor, including Most Respectable Company, Best CEO and Best Investment Relations Director.

### July

## August

On August 25<sup>th</sup>, 2016, the reporter from Focus on Three Rural Services of CCTV visited Modern Dairy's farms to reveal the fresh quality of "2-hour milk".

On August 26<sup>th</sup>, 2016, Modern Dairy participated in China Dairy D20 Summit and Dairy Industry Invigoration Conference, where they discussed the experience and problems in the development of China Dairy and signed the *Declaration of China Dairy Invigoration*.

## October

On October 22<sup>th</sup>, 2016, Modern Dairy became the first company, whose pasteurized milk and UHT sterilized milk passed the acceptance of "High-quality Milk Project" organized by the dairy innovation team of Chinese Academy of Agricultural Sciences.

2016

On September 10<sup>th</sup>, 2016, coinciding with silage harvest season, the Company successfully purchased 1.1 million tons of high-quality silage. For the first time, the Company achieved innovative transformation by using APP system to monitor the entire process.

## September

On December 7<sup>th</sup>, 2016, an agricultural feature programme group of CCTV 7 came to Bengbu Farm and Hongya Farm to explore the mystery of manure resources recycling.

On December 26<sup>th</sup>, 2016, Modern Dairy officially became the vice chairman of National Dairy Technology Innovation Alliance.

## December

## KEY PERFORMANCE

### ECONOMIC PERFORMANCE



Operating income

**486,231**  
(10,000 Yuan)



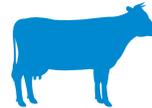
Output of raw milk

**110**  
(10,000 tons)



Output of milk products

**15**  
(10,000 tons)



Total amount of cows

**229,200**



Number of sales outlets

**6,806**

### SOCIAL PERFORMANCE



Total number of employees

**6,051**



Total hours of employee training

**90,100**  
(hour)



Total number of suppliers

**477**



Coverage rate of occupational disease examination

**100**



Localized employment rate

**63.47**

### ENVIRONMENTAL PERFORMANCE



Annual biogas consumption

**11,755.63**  
(10,000 m<sup>3</sup>)



Annual biogas power generation

**5,409.84**  
(10,000 KWh)



Total biogas fertilizer consumption

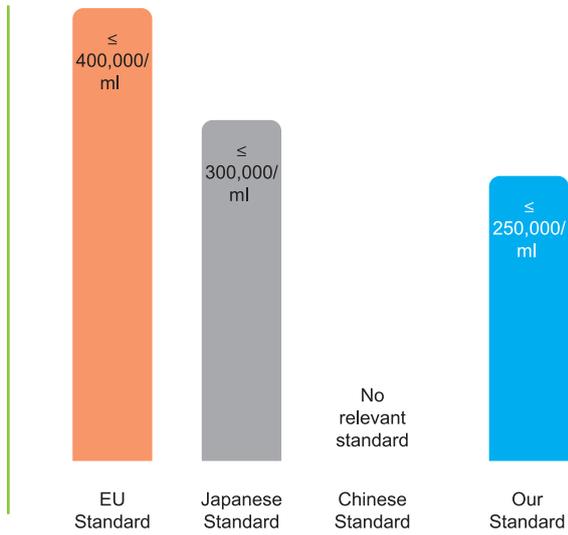
**565.78**  
(10,000 m<sup>3</sup>)



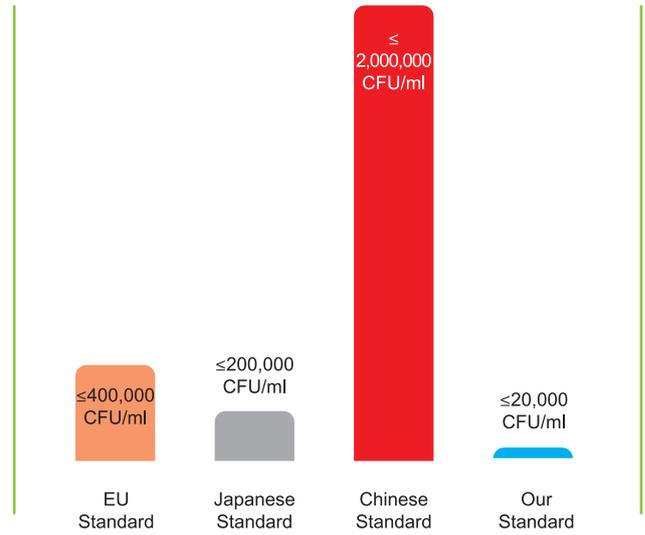
Total biogas residue consumption

**166.94**  
(10,000 m<sup>3</sup>)

### Somatic Cell



### Microbe



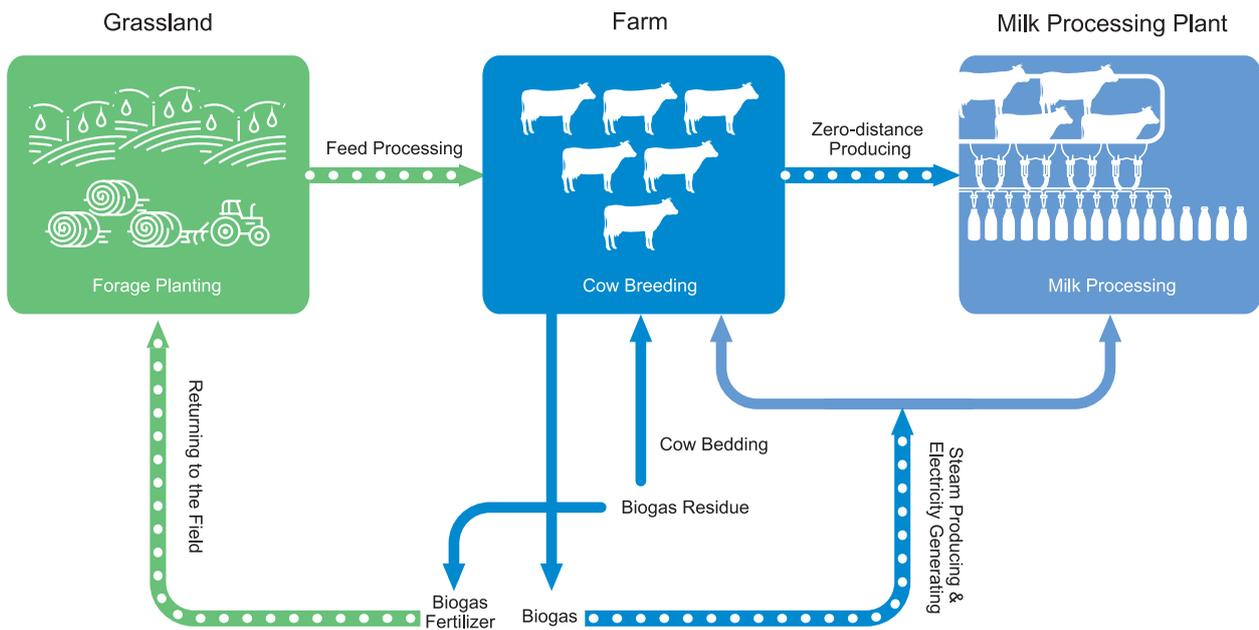
### Protein



# The Integration of Planting, Breeding and Processing Makes for “2-Hour” Gold-Brand Milk

Modern Dairy embraces the “new normal” of development with its creative industry mode after completing the “last mile” of the dairy industry chain.

Over the past 11 years, we have performed the responsibility for “making the quality of Chinese milk better than that of any other country”. With our initial determination of “doing well in planting grass, breeding cows and producing milk”, we have strived for excellence and made serious efforts to produce world-class milk. In positive response to the requirement of structural reform of supply side in the dairy industry, we make continuous exploration of a development path through which we can give full play to local advantages, and create a new industry mode suitable to the future industry trend to achieve common development with Chinese dairy.

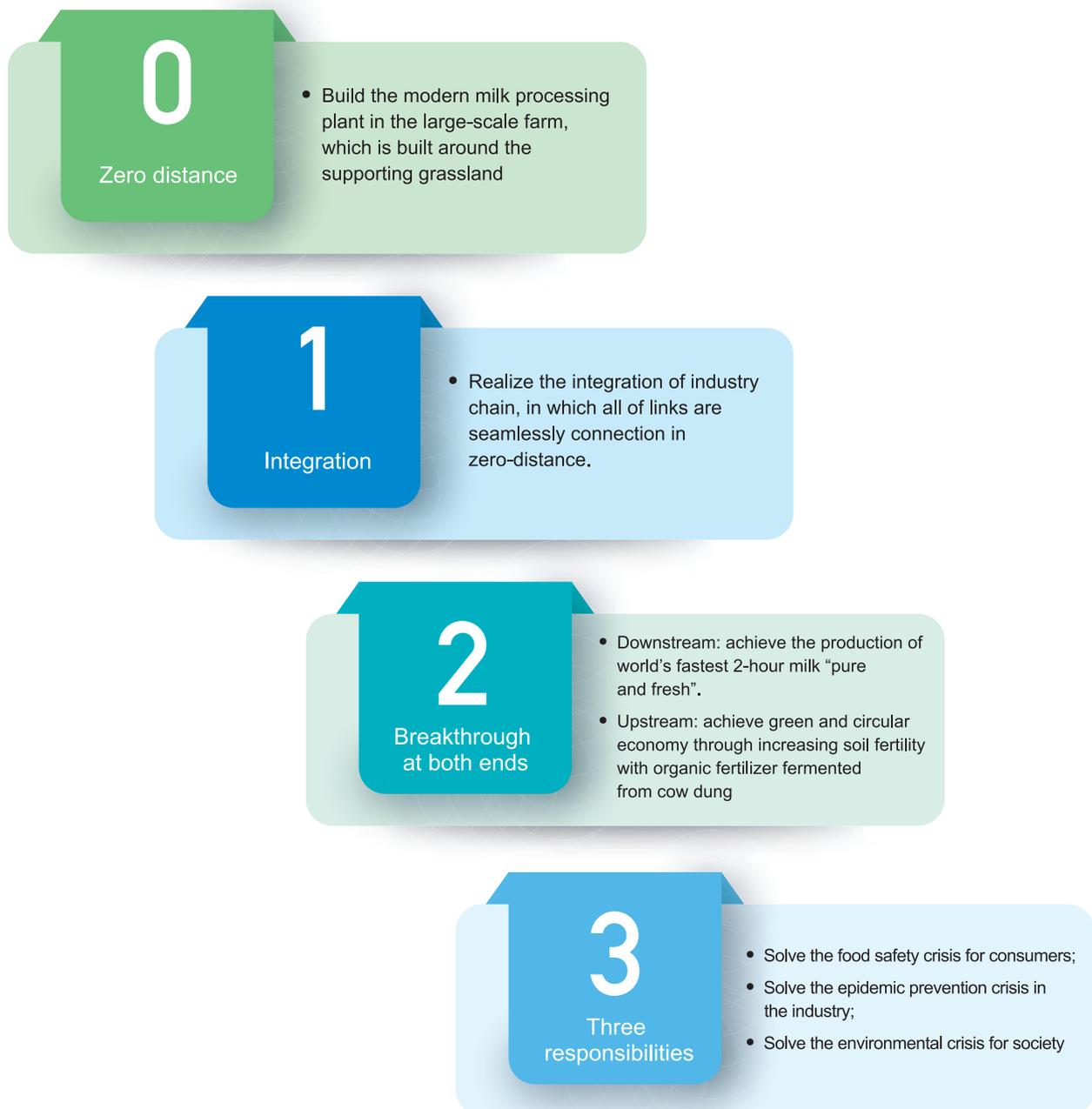


Modern Dairy creates the world’s first development mode integrated with the forage planting, cow breeding and milk processing, in other words, building the modern milk processing plant in the large-scale farm, which is built around the supporting grassland. Such layout can not only ensure the supply of quality silage and fresh raw milk, but also increase the soil fertility with organic fertilizer fermented from cow dung.

## INNOVATIVE “0123” MODE

High-quality raw milk, scientific processing technology and up-to-standard product indicators are key to the fruition of an excellent dairy industry. Modern Dairy cannot achieve steady development without the application of innovative development mode. The company gives full play to the advantages of “0123” mode and makes great efforts to develop long-term systematic production process. By doing so, we have become the first company which passed the acceptance of “High-quality Milk Program” and “Double Check” organized by the dairy innovation team of Chinese Academy of Agricultural Sciences.

“0123” means we make use of zero-distance innovative integrated production mode to make breakthroughs at both ends of “2-hour fresh milk and circular economy” and thus assume three responsibilities for dairy development.



# 1. About Us

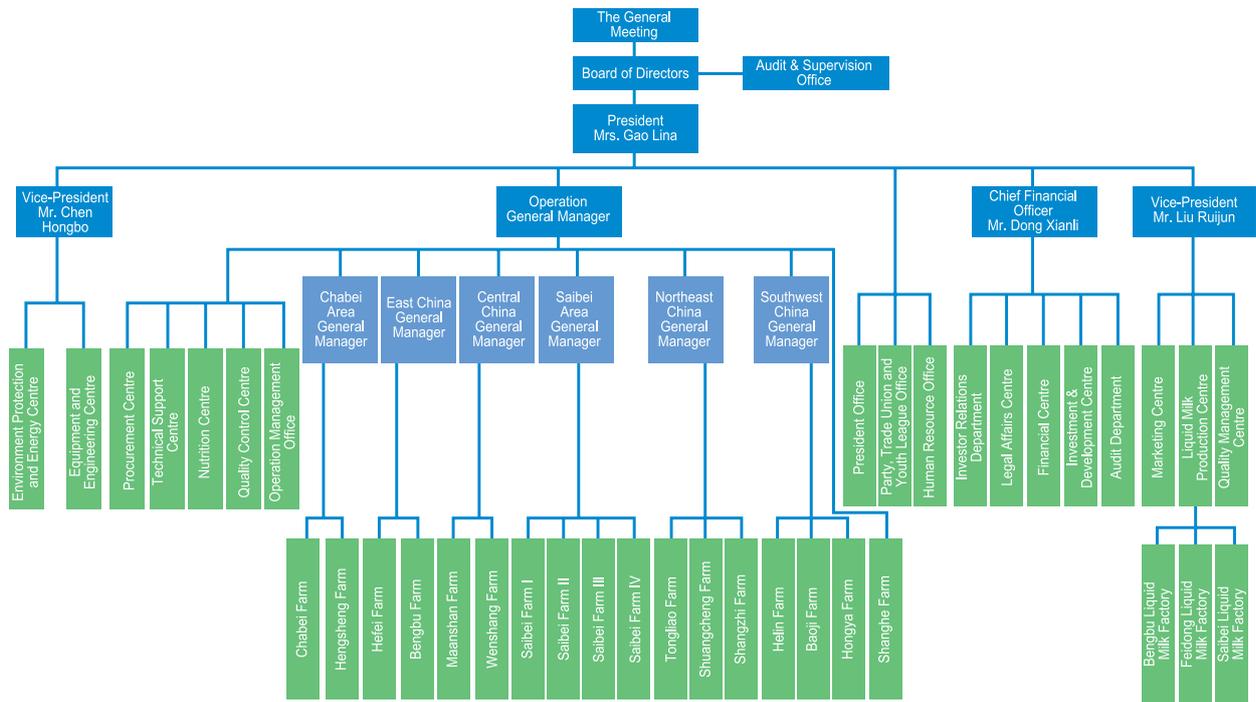
## 1.1 COMPANY PROFILE

China Modern Dairy Holdings Ltd., established in 2005 and headquartered in Economic and Technological Development Zone of Maanshan City, Anhui Province, is specialized in dairy farming and milk production. The company was listed on the Stock Exchange of Hong Kong (Stock Code: 01117.HK) on November 26, 2010. Modern Dairy is the first listed company focused on dairy cow breeding in the world, as well as the largest dairy farming company and high-quality raw milk supplier in China. By the end of 2016, Modern Dairy possesses 26 wholly-owned farms with a total of about 229,200 cows. Relying on large-scale farming, modern facilities, first-rate management and stringent raw milk standards, Modern Dairy has become a global leader in the cow breeding and milk processing industry. Apart from the supply of high-quality raw milk, Modern Dairy produces and sells its branded UHT milk.

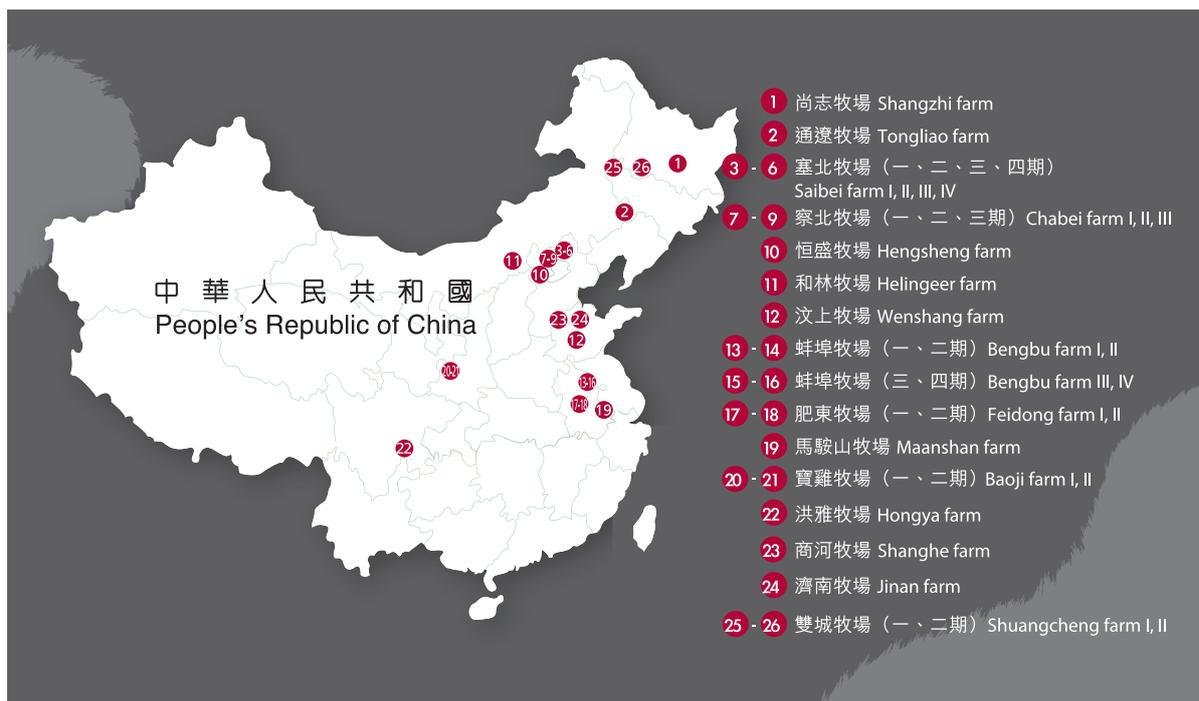
### Development History



The Organizational Structure of Modern Dairy



Distribution Map of Farms



### 1.2 CORPORATE GOVERNANCE

In accordance with the listing rules of the Stock Exchange of Hong Kong and the requirements of modern enterprise management system, we have set up the general meeting, the board of directors and the company's management, and established an operation mechanism with clear division of power and responsibilities and coordinated management. All of departments must perform their roles and exercise their decision-making, supervision and management rights to operate the company in an efficient, standard and orderly way while taking into account the interests of all stakeholders.

The board of directors is responsible to shareholders and manages the company in a responsible and effective manner. Each director is committed to achieving the optimal development of the company with their expertise and knowledge. The board of directors decides the company's goal, strategies and policies, monitors and controls the operation and financial performance of the company in the practice of strategic objectives and authorizes CEO and the Company's management to be in charge of daily business management. The Board of Directors has Remuneration Committee, Audit Committee, Nomination Committee and Strategy and Development Committee. It should review the agenda before board meeting in order to improve its operational efficiency. In 2016, we held an annual general meeting, 2 general meetings and 10 board meetings.

For more information about corporate governance, please read *China Modern Dairy Holdings Ltd. Annual Results 2016*

#### Compliance Operation

Modern Dairy strictly abides by national laws and regulations. On this basis, the company upholds the integrity of management and protects fair competition in the markets. Besides, the company safeguards the rights and interests of consumers and social public interests, aiming to ensure its standard and sustainable development.

- |                      |  |
|----------------------|--|
| Compliance Operation | <ul style="list-style-type: none"><li>• Pay attention to the policies from the relevant departments of state and governments and the third-party evaluation;</li><li>• Strictly carry out verification, audit and monitoring;</li><li>• Conduct recruitment by laws and safeguard the rights and interests of employees;</li><li>• Conduct compliance audit of economic contracts, rules and regulations and major business decisions.</li></ul>   |
| Risk Management      | <ul style="list-style-type: none"><li>• Focus on the core risk issues to strengthen internal risk control and management;</li><li>• Optimize the risk identification and evaluation to improve the staff awareness of risk prevention;</li><li>• Strengthen the efficiency of risk management to improve business level and risk control</li></ul>   |
| Anti-corruption      | <ul style="list-style-type: none"><li>• Carry out anti-corruption education, promote the prevention of corruption and enhance the anti-corruption awareness among employees;</li><li>• Held a total of 15 trainings on professional ethics throughout the year and over 280 employees from the management took part in the training;</li><li>• Take the laws as the yardstick to carry out the internal rules and regulations on the construction of a clean and honest administration;</li><li>• Accept the complaints and reports from the general public, implement rectification measures and penalty;</li><li>• Dealt with and investigate 14 cases, down by 50% over the same period of previous year.</li></ul> |

### 1.3 SUSTAINABILITY MANAGEMENT

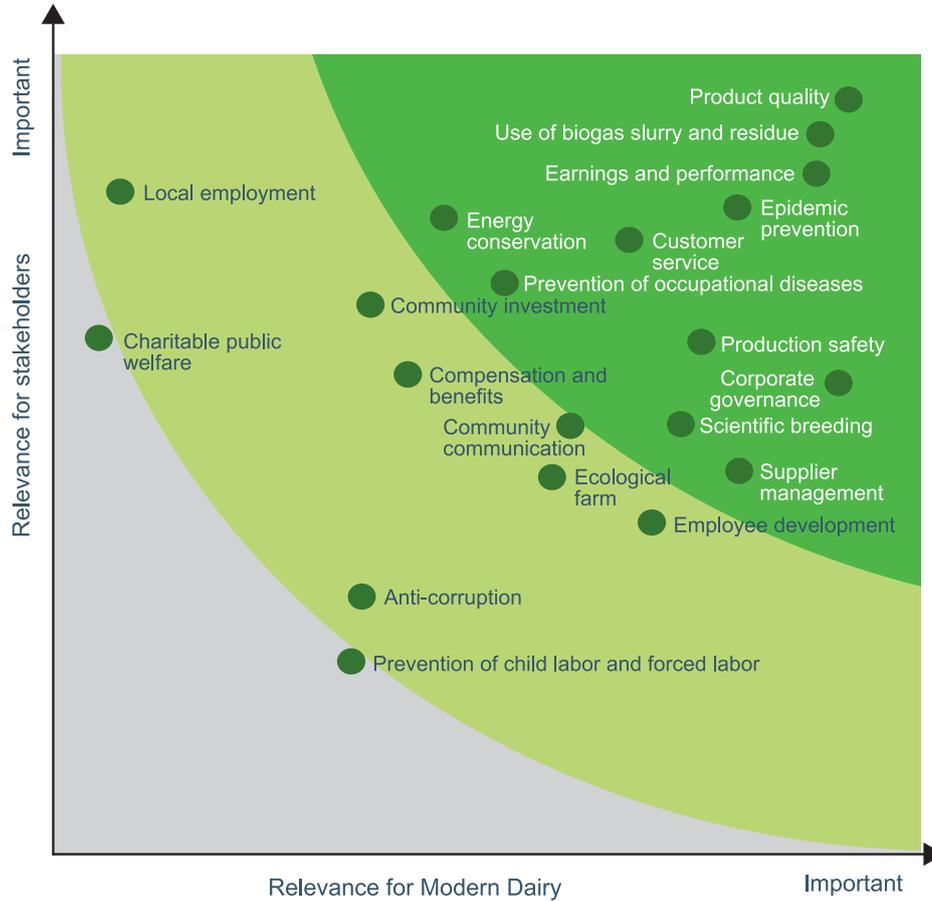
The development of dairy industry is related to national economy and people's livelihood. At the end of 2016, *the National Development Planning for Dairy Industry (2016-2020)* (hereinafter referred to as "the Planning") was released, which has made an overall plan and systematic deployment of dairy industry development during the 13th Five-Year Plan. The Planning has made it clear that dairy industry is indispensable to a healthy country and a strong nation. It is a representative of food safety industry, a symbolic industry of agricultural modernization and a strategic industry for coordinated development of primary, secondary and tertiary industries. The Planning also request that the dairy industry promote the structural reform of supply side and speed up the transformation of production mode to reach a higher level of mass production, organization, standardization, branding and integration. Besides, the dairy industry needs to improve their quality benefits and competitiveness in the process of their development. While striving for efficient output, product safety, energy conservation and environmental protection, the dairy industry sets itself on the path to modernization development.

Against the backdrop of modern dairy development, Modern Dairy has made active response to national deployment, developing enterprise development strategy, strengthening sustainability development, improving economic, social and environmental benefits and striving to achieve the long-term maximized interests for shareholders, customers, employees and society.



### Sustainability Issues

In accordance with the requirements of the ESG guidelines and the Global Reporting Initiative's *Sustainability Reporting Guidelines* (G4), we target the standards of leading companies at home and abroad. And on this basis, we sort out and classify the issues that can reflect the economic, environmental and social influence of the organization and that have a material impact on the assessment and decision of stakeholders. After screening and prioritizing these issues, we try to give a disclosure of our operation and management as accurately and comprehensively as we can.



## Stakeholders

We make proactive communication with our core stakeholders and build a pluralistic and smooth communication channels to listen to their demands and expectations.

Stakeholder	Demands & Expectations	Communication Channels
Shareholder	<ul style="list-style-type: none"> <li>• Economic returns;</li> <li>• Law-abiding operation;</li> <li>• Production safety;</li> <li>• Prevention of operational risks</li> </ul>	<ul style="list-style-type: none"> <li>• Company announcements;</li> <li>• General Meetings</li> <li>• Special reports;</li> <li>• Field investigation;</li> </ul>
Government	<ul style="list-style-type: none"> <li>• Compliance and operation</li> </ul>	<ul style="list-style-type: none"> <li>• Supervision and evaluation</li> </ul>
Customer	<ul style="list-style-type: none"> <li>• Integrity management</li> <li>• High-quality products;</li> <li>• High-quality services;</li> <li>• Communication channels</li> </ul>	<ul style="list-style-type: none"> <li>• Business communication;</li> <li>• Transparent plant</li> <li>• Service hot-line</li> <li>• Customer's feedback</li> </ul>
Environment	<ul style="list-style-type: none"> <li>• Energy conservation;</li> <li>• Manure disposal;</li> <li>• Reasonable use of water;</li> <li>• Environmental protection</li> </ul>	<ul style="list-style-type: none"> <li>• Communication with local environmental authorities;</li> <li>• Communication with local residents;</li> <li>• On-line monitoring</li> </ul>
Industry	<ul style="list-style-type: none"> <li>• Open, fair and impartial procurement</li> <li>• Leading role in the industry and formulation of industry standards;</li> <li>• Mutual benefit and win-win result;</li> <li>• Higher industry management;</li> </ul>	<ul style="list-style-type: none"> <li>• Research and cooperation between industries</li> <li>• Communication meetings;</li> <li>• Investigation and exchange visits;</li> <li>• Supplier evaluation and cooperation</li> </ul>
Employees	<ul style="list-style-type: none"> <li>• Remuneration and welfare;</li> <li>• Prevention of occupational disease;</li> <li>• Humane care;</li> <li>• Career development</li> <li>• Workers' rights and interests</li> </ul>	<ul style="list-style-type: none"> <li>• Workers' Congress;</li> <li>• Letters and visits;</li> <li>• Recruitment</li> <li>• Training and exchanges</li> <li>• Suggestion box</li> </ul>
Communities	<ul style="list-style-type: none"> <li>• Improving community environment;</li> <li>• Supporting the public welfare activities of communities;</li> <li>• Promoting the development of local agriculture and rural development</li> <li>• Promoting employment</li> </ul>	<ul style="list-style-type: none"> <li>• Communicating with communities;</li> <li>• Exchanging visits;</li> <li>• Communicating with local government and other agencies</li> <li>• Carrying out charity activities</li> </ul>
Media	<ul style="list-style-type: none"> <li>• Open and transparent information</li> </ul>	<ul style="list-style-type: none"> <li>• Company's website</li> <li>• Company's advertisements</li> <li>• Interviews</li> </ul>

### Words from Stakeholders

My name is Xu Lianghong, an ordinary employee at Calf Department and a rural woman with little education, has been working in Maanshan Farm for more than 10 years.

In 2016, the daily milk yield of a single cow exceeded 35kg on average on our farm, which made me really happy. I was deeply proud of the result created by our own cows, as if my child were admitted to a top university.

In the past 10 years, my main job every day is cleaning milk pail for calves, feeding them, cleaning cow dung, scrubbing the sink and others. Every day I take care of these calves like my babies. Milk pails must be cleaned with acid and alkali to ensure its cleanness. The pasteurized milk for calves is so safe that people can drink it directly. As the gastrointestinal tracts of calves are as vulnerable as those of babies, if the cleaning practices are inadequate, they will be prone to diarrhea. When some calves have a cold because of changing weather, I will patiently guide them to drink milk. In some cases, it takes them more than ten minutes to drink milk.

For me, the best hope is that calves can be healthy and free from diseases.



Xu Lianghong — calf breeder

My name is Yan Taishan, General Manager of Zhongtai Agricultural Development Co., Ltd. In Saibei Management District of Zhangjiakou city. My company is specialized in planting vegetables, potatoes, wheat and other crops. The annual planting area is about 1,000 mu. Since 2012, we have been using biogas provided by Modern Dairy for 4 years on end, from which we have benefited a lot.

Modern Dairy's biogas is the conscientious fertilizer that benefits farmers. Not only does the company provide us with monthly test report of biogas indicators, but also sends professional staff to guide fertilization. Our crop yield and quality, ever since then, has been improved greatly. This has reduced the use of fertilizer and significantly increased the economic benefits as well. As Modern Dairy's biogas, which is proved to be an easy-to-use, time-saving and labour-saving fertilizer, contains the necessary nutrients for the growth of crops, it is beneficial to crops, either used for base fertilizer or top dressing, as long as it is used in a proper way. I hope that Modern Dairy can keep with it, offering us good fertilizer and services, and making continuous innovation in organic biogas fertilizer. I also hope the company can bring more benefits to surrounding farmers, improve the soil fertility, and promote local agricultural development.



Yan Taishan — General Manager of Zhongtai Agricultural Development Co., Ltd.  
in Saibei Management District of Zhangjiakou City

## 1. About Us

My name is Dong Ruyuan and I am 50 years old. I am from Xiaoliu Village, Zhuding Town and Wuhe County. At present, I have planted silage corn in 730 mu of leased land in my hometown and provided silage for Modern Dairy Bengbu Farm for 3 years.

Since it commenced operation in 2012, Bengbu Farm has purchased a large amount of silage corn and other fodder around the Farm, which has furthered the surrounding agricultural economy. In the past, I planted soybeans and other crops. However, I started planting silage corn and sold it to Bengbu Farm in 2014 when I saw other farmers benefit from planting it. Even in the last two years when the corn was faced with sales difficulties in our country, the Farm also purchased all of my silage corn, which completely eliminated our fears and worries.

Since we started cooperation with Bengbu Farm, the Farm has not only purchased our silage corn, but also provided us with biogas fertilizer. Such fertilizer can help us save 80–100 yuan per mu in a season of silage corn. Totally, I can save more than 60,000 yuan from my 730 mu of land. In order to make full use of biogas fertilizer, I set up a cooperative company in 2015 and invested in a biogas fertilizer pipeline and tank, through which we can consume more than 30,000 cubic meters of biogas fertilizer. We have signed a silage corn contract with the Farm and provided about 1000 tons of silage corn for it. By doing so, we have eliminated the fears and worries of sales difficulties in a later period. Next step, I plan to lease more land, expand the scale of cultivation and make scientific use of biogas fertilizer to increase the quality of silage corn. This will develop the circular economy in our village and bring more benefits to me.



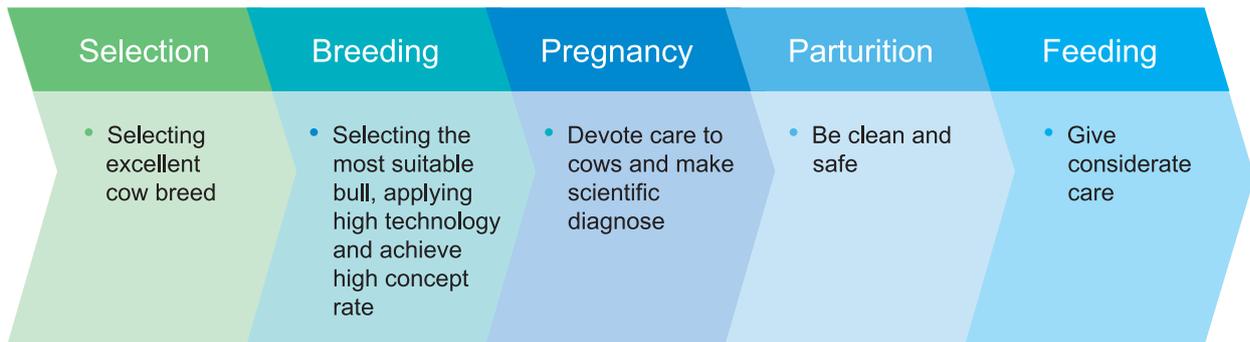
Dong Ruyuan — a villager from Xiaoliu Village, Zhuding Town, Bengbu City

## 2. High Standard — Protecting the Cow-centered Milk Source

Breeding good cows is the fundamental to creating the most advanced farm and producing top-quality milk. While adhering to the “cow-centered” idea, we start from careful breeding, scientific feeding, information management, epidemic prevention and other aspects to ensure the comfortable, healthy and safe life to cows and high-quality milk source.

### 2.1 DEVOTING TO COW BREEDING

Our professional livestock engineers select high-quality cows from other countries and then introduce to our country. By making further breed improvement of cows with the frozen semen of high-yield thoroughbred bull and embryos, they devote themselves to building our own core breeding herds.



We have set up a file for the cow before it is born in order to keep a record of its breeding and management throughout its life. After its birth, the staff will conduct health examination and disinfection to ensure its good growth and development and its absorption of adequate nutrition from calf to cow.

#### Tips: Holstein Cow

Holstein cow is known today as the world’s highest production dairy animal with the largest feeding herd. As early as the 15th century, it was well-known for high milk production. Over hundreds of years, breeders have continued to adjust the means of cultivation and overcome common diseases, making it the most extensive cow in the world. Modern Dairy selects high-quality Holstein cattle, gives full play to and improves its advantages such as strong disease resistance, high milk yield, good breast structure, genetic stability and others, all of which are of a great guarantee to the production of high-quality raw milk.



## 2. High Standard — Protecting the Cow-centered Milk Source

### 2.2 CONDUCTING SCIENTIFIC BREEDING

Modern Dairy has a herd of 229,200 cows, of which there are 119,300 adult dairy cows and 109,900 young cows and calves. The 10-thousand-cow farms require us to strive for excellence in cow breeding. Through scientific management, we render considerate care to cows to produce high-quality milk from “this big family”.

#### Nutritious Feed

We strictly control the quality of feed from the source to ensure adequate forage for each cow and maintain their nutritional balance. On the one hand, we choose feed suppliers through a stringent process and purchase quality alfalfa, silage and other feed from many countries. On the other hand, we carefully investigate the surrounding conditions of farms and plant plenty of forage on the well-located farms.

We have set up a nutrition center to fully implement dairy ration control system with TMR as a core. By adopting CPM software, we develop various diet programs for different herds. Besides, we use intelligent feed mixer and thoroughly mix the coarse and fine feed to avoid picky eaters. At each meal, we provide cows with 3-5% more feed than their consumption to ensure adequate feed and avoid massive waste.

#### Tips:

Total Mixed Ration (TMR) is an advanced breeding process in which the ingredients of a ration are mixed, cut and blended in a special mixer according to a formula that nutrition experts designed in combination with the nutritious needs of cows at different growth stages and lactation periods.

Cornell Pennsylvania Mier Dairy Software (CPM-Dairy Software) is the most advanced feed formula software in the world, which is developed on the basis of the Cornell Net Carbohydrate and Protein System (CNCPS). In the software, the feed protein and carbohydrates are divided into fast-, medium- and slow-degradation groups according to their degradation rate in the rumen. Through the simulation and refinement in the balance of protein and carbohydrate degradation, it improves the accuracy of feed formula and its efficiency.

### Comfortable Cowhouses

A 10-thousand-cow farm has high breeding density and each large cowhouse can hold 2,800 cows, which is a big challenge to dairy cow welfare. We place high value on the comfort management of cow herds and make great effort to bring comfortable life to each cow.



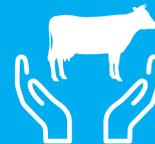
#### BUILDING COWHOUSES

Each farm plans the housing on the basis of the local climate and the different stages of cow's development. In order to satisfy the demands of their growth, the farm has to take into account of each element of their design, including the moisture of biogas residue, the size of cow bed, orbital height, the thickness of bedding materials, lighting facilities and others.



#### MANAGING COWHOUSES

Each farm must clean the cow beds twice a day and dispose of cow dung at any time all day with automatic scraping system, while adhering to a rational circulation system comprised of cow dung disposal, cow bed cleaning, cow feeding and cow resting. On this basis, each farm has to carry out scientific breeding and give ethic treatment to dairy cows.



#### ENSURING SAFETY AND HEALTH

Each farm not only provides dairy cows with comfortable living environment, but also ensures their health and safety. For this reason, the staff has to perform spraying disinfection to cow housing twice a day, collect fetal membranes and dispose of them in a harmless way. Besides, each farm has to tighten the management of epidemic prevention to ensure the health of dairy cows to the greatest extent.

#### Case Study: Better management of bedding materials brings more comfortable cow beds

The concrete floor of cowhouse is hard and uninsulated, which is not conducive to cow rest. For this reason, we designed the professional housing for cows, equipping cows at different stages of growth with different cow beds. What's more, we spread a thick layer of soft and dry biogas residue, which can increase comfort, reduce cost and recycle waste in comparison with sand and sawdust. Through research, we adopted the double-extrusion technology to treat higher moisture content in the biogas residue, choosing the materials with less than 55% moisture content for cow beds. Besides, we have formulated *Measuring Standards for Cow Bedding Biogas Residue*, *Management Rules on Cow Bedding Comfort*, *Management Rules for Biogas Residue Cow Bedding* and other documents to make the management of cow bedding more scientific and normalized and improve the comfort of cow beds effectively.

## 2. High Standard — Protecting the Cow-centered Milk Source

### 2.3 COMPUTERIZED COW BREEDING

Modern Dairy has independently developed MIS information system according to the actual needs of farms. The company has installed information hardware equipment and improved information management system and procedures. By doing so, the company has achieved unified and standardized data collection, entry, summary and analysis to provide scientific and standard guidance and basis for production and decision-making.

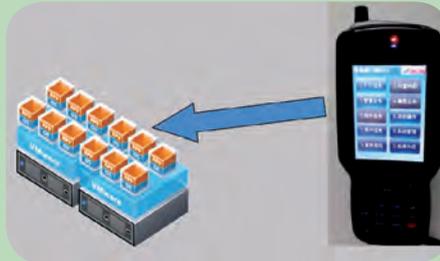


**Case Study: Breaking with tradition and applying handset to information management**

The handset is based on the information exchange between the handheld terminal management system and the data center. By means of its functions such as real-time remote inquiry of cow information, a timely reminder and the keeping of accurate record, it has linked production links into a whole to make close cooperation. With the complete coverage of wireless communication, the farm can conduct all-round management. This core technology consists of 10 modules, which can provide more than 30 business date operations, covering calf, vet, breeding and other departments. It covers the entire life cycle



Traditional pattern



Information pattern

management of cow herd, overcomes the convenience of traditional management and gives full play to the advantages of information technology.

**2.4 SAFETY AND EPIDEMIC PREVENTION**

Epidemic prevention is the foundation for the safety of farms. Modern Dairy strictly abides by the *Animal Epidemic Prevention Law and the Animal Husbandry Law of the People's Republic of China, Regulations on Animal Quarantine Management* and other laws and regulations. Following the principles of "Prevention comes first and it is more important than cure", we have adopted the advanced technical management experience in the industry and developed a set of complete epidemic prevention system. Through strict and standardized epidemic prevention management, we will ensure the health of dairy cows and the safety of milk sources as possible as we can.

**Epidemic Prevention**

Modern Dairy has formulated Management Regulations on Epidemic Prevention, Management Rules for Staff Protection, Epidemic Prevention Rules for Entry-Exit of Farm, and Management Rules for Disinfection Room. We request all of farms pay attention to the rational layout of the production area, life management area, waste treatment area, ailing animal area and others, conduct closed-end management mode, make effective inspection, disinfection and protection at the entrance or exit of farms.

## 2. High Standard — Protecting the Cow-centered Milk Source

We strictly prohibit non-production personnel into the farm. Any relevant person and vehicle must be strictly disinfected before entering the farm to reduce the risk of cross infection. We perform spraying disinfection to cowhouses twice a day to ensure that the epidemic prevention of cowhouses, treatment environment and staff is in line with the standard. New entrants must undergo the pre-job physical examination and receive pre-job training on epidemic prevention. All of workers must wear protective equipment and wash their working clothes with effective disinfectant. Besides, we carry out training programs for old employees on a regular basis to enhance their awareness of labor protection and epidemic prevention.



Carrying out disinfection at the gate of Bengbu Farm

### Immunization and Quarantine

According to the relevant laws of animal epidemic prevention and the requirements of the National Medium and Long-term Animal Disease Control Program (2012-2020), Modern Dairy has developed a stringent program on cow immunization and quarantine in combination with the actual situation of farms. Each year, all of farms must vaccinate cows regularly against FMD, one of animal epidemics with the execution of national compulsory immunization, and carry out immunization of state-specified zoonosis. Besides, we will formulate immunization and quarantine plans, and carry out quarantine against bovine ephemeral fever and other diseases according to the epidemic situation on farms.



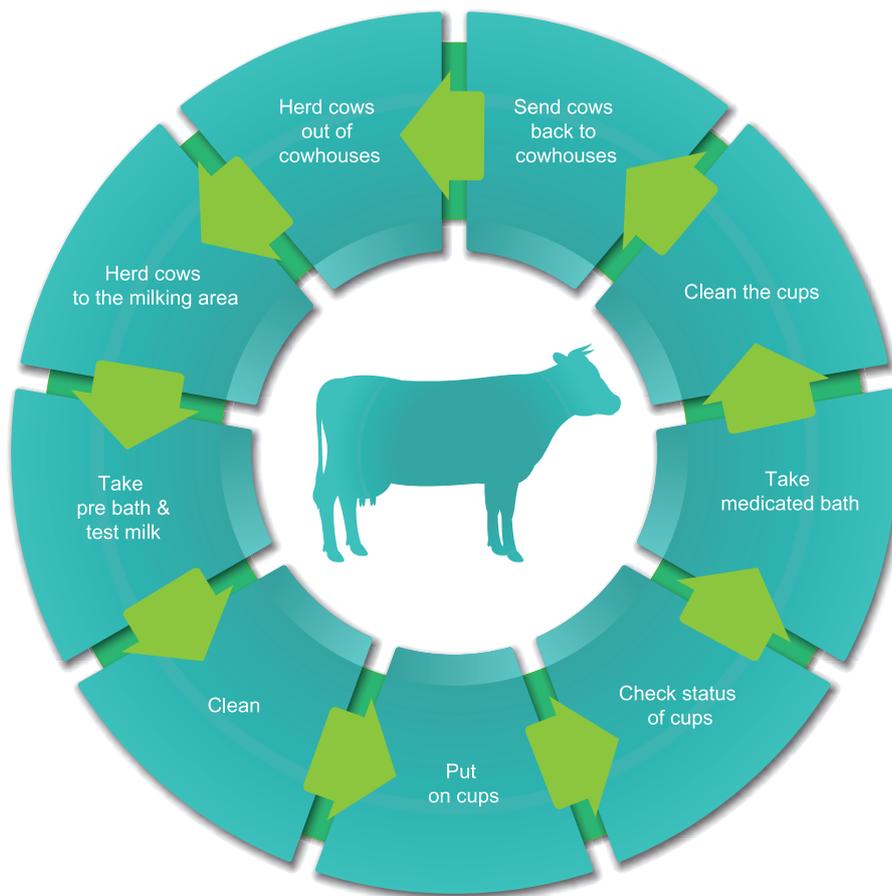
Curing an ailing cow

### Management of Culled Cows

We strictly follow the management rules for dead and culled cows. With the multi-sector cooperation, we propose a declaration plan in accordance with the procedures to phase out worthless cows that suffer from long-term low-yield, reproductive disorder or suffer parturient paresis. The culled cow in qualified body condition will be sent for tender sale after the official veterinary quarantine. In no circumstances do we have intention to sell, transport, process and eat dead cows died of disease or for unknown reasons. They will be given innocent treatment after death.

### 2.5 CLEAN MILKING

We have adopted the international advanced milking method on each of our farm through introducing the world's leading 80-stand rotary milking machine, 2 × 32 parallel milking machine and herringbone milking machine. These machines can finish udder detection and milking measurement during milking process. We request all of milkers to wear overalls and disinfect milking machines in a stringent manner before and after milking. The cleaning process can be fully automated, including water flow, water temperature, ph-value and cleaning time. By doing so, we aim to achieve 100% in robotic milking, ethical treatment of cows and standardized cleaning.



Milking process

### 3. High Quality — Taste Our Distinctive Milk

In the spirit of the EU Food Law, the jury made an all-round quality assessment and review of the products, including their health safety, taste, raw materials and others, especially the fundamental requirement of product itself. Modern Dairy left a deep impression on the jury with the excellent physical and chemical indicators of milk and its “pure, true, fresh and living” features.

— Patrick, President of Monde Selection

In order to achieve a leap in the development of quality, Modern Dairy gives play to the advantages of high-quality raw milk source and makes continuous innovation. While increasing and the share of its own brand milk in the market, the Company strives to develop distribution network of its own brand milk and increases the proportion of downstream sales to expand its market share and extend the value of industry chain. We hope to work together with peers to enhance the international competitiveness of China’s dairy, occupy the highland of safe development of dairy industry and explore the new path and new mode of its development.



Normal-temperature pure milk

It is processed with UHT instantaneous sterilization technology and contains no preservatives. The whole process from milking to finished products is completed within 2 hours, which can maximally retain the distinctive milk flavour.



2-hour fresh milk

It is produced with pasteurization and contains no preservatives. The whole process from milking to finished products is completed within 2 hours to maximally ensure the activity of milk.



Normal-temperature yogurt

It is produced with raw milk from our own farm and contains pigment, flavours or additives. Fermented with strains, the yogurt has a taste, leaving each endless savour while their stomach.

### 3.1 PURE — ASSURANCE OF DELICATE TASTE

In 2012, Modern Dairy sold its first bag of pure milk to customers. In just four years' time, the Company has received the world gold prize for three consecutive years and the international trophy for high-quality products. Much to our delight, relying on pure milk alone, we have achieved substantial growth in the sales of own brand products for three years on end.

In 2016, the sales amount of our own brand products reached 1.48 billion yuan. From 2012 to 2016, we achieved the annual compound growth rate of 66.4% in the sales of our branded milk. The liquid milk products accounted for 30.4% of the total revenue.

Modern Dairy has achieved full-process control and responsibility management and built a closed loop ecosystem of milk products, where we plant forage grass, breed cows, produce raw milk and process and sell milk products by ourselves. We produce high-quality raw milk from our large-scale farms and then process it into dairy products, which ensures that all of our excellent products have come up to the international advanced level.



Eight-cup mixed plain yogurt

It is 100% produced with pure milk and contains no preservatives. Fermented with high-quality strains and added bifidobacteria, it can improve the absorption ability of intestinal tract.



Eight-cup mixed blueberry yogurt

It is 100% produced with pure milk and contains no preservatives. Fermented with high-quality strains and added bifidobacteria, it can improve the absorption ability of intestinal tract. The blueberry flavour can meet the different demands of a larger number of consumers.

### 3. High Quality — Taste Our Distinctive Milk

#### Case Study: Modern Dairy cooperates with the National Dairy Technology Innovation Alliance— “High-quality Milk Project”

On February 16th, 2015, Modern Dairy cooperated with National Dairy Technology Innovation Alliance to carry out “High-quality Milk Project”. This project proposes a complete set of scientific evaluation indicators and methods, and researches the crucial technology throughout the entire supply chain, covering planting, breeding, processing and sales. The implementation of this project can fundamentally improve the quality of raw milk and processing level and enhance competitiveness of local dairy products. As of October 20th, 2016, Modern Dairy successfully passed the acceptance of sterilized milk and low temperature pasteurized milk, both of which come up to the standard issued by the National Dairy Technology Innovation Alliance.

### 3.2 TRUE — ASSURANCE OF CARE

Modern Dairy always adheres to the idea that enterprise should tell the truth and do practical things. Modern Dairy works to provide the safest and healthiest milk for consumers, keep them informed of most real and accurate information and put great energy into consumer services.

#### Service Reputation

With the increase of income and the popularization of health concepts, the demand of dairy products is increasingly augmented with a growing tendency for diversified products. Modern Dairy keeps improving its customer service system and makes regular investigation on the satisfaction of consumers to proactively understand their demand. Besides, the Company has opened a 400-hotline to receive complaints and suggestions from consumers and created its own subscription number to communicate with consumers.

In addition, we gradually expands our sales network and increases sale forms, promoting “sending fresh milk home” within two hours across the country, setting up outlets in 613 large supermarkets, establishing 6,806 sales outlets in 21 counties, 39 cities, 3 municipalities and 9 provinces, as well as creating our own subscription number. By doing so, we hope to gradually develop customers, deliver our fresh milk products in time, and meet consumers’ demand.

#### Top the list of China Top 10 Milk Brands in 2016

China-10.com is a professional website for ranking top 10 brands of various industries, aiming to guide the brand consumption and create integrity brand. The website gives full play to the advantages of its credible brand database and conducts comprehensive evaluation according to online voting results, relevant enterprise information, media reports, and research institutions, aiming to provide consumers and dealers with reliable data to make right selection. The top 10 brands introduced online by the website are championship brand in the industry. As they enjoy high-reputation, excellent quality and corporate credit in the industry, they have been the true embodiment of Chinese market brands.

From March to May, 2016, the website held a two-month selection of Chinese Top 10 Milk Brands. During the whole selection process, Modern Dairy was among the best and eventually stood out, winning the first place.



### Complaint Management

Modern Dairy has formulated Management Measures of Product Complaint and Inventory Replenishment and implemented responsible mechanism for consumer complaints in order to standardize the complaint handling process, speed up the handling of product quality complaints, effectively control the problem products and improve customer satisfaction. Sales staff must contact consumers within 12 hours to handle personal complaints. As to collective complaints, sales staff must conduct recycling and harmless treatment and follow the procedures to complete the replenishment. If they find hidden sales risk, they have to report to regional manager and quality inspection manager in two hours to ensure that complaints are handled in a reasonable and proper way.

In 2016, Modern Dairy received a total of 368 complaints, all of which were effectively solved. This has really demonstrated our attitude to being responsible for consumers and products.

### 3.3. FRESH — ASSURANCE OF QUALITY

“Quality” is the commitment of Modern Dairy to consumers. We persist in and exceed the standard and ensure excellent quality with innovative models. Through quantitative quality data, we try to make our milk quality visible to our consumers so that they are assured of the safety of our milk.

#### Raw Milk Quality

As the largest producer of raw milk in China, Modern Dairy has established 26 large-scale farms in seven provinces of China. In order to produce high-quality raw milk, we conduct full-process management and confirm several indicators, including the safety of key positions, the physical and chemical indicators, drug residue, milking and preservation process, and transport. In 2016, we achieved 9.4 tons of raw milk per cow and 3,200 tons of high-quality raw milk per day. In terms of somatic cells and microbes of raw milk, our indicators are better than those in national standards. Therefore, we can not only use it for the production of self-brand products, but also provide it for many dairy enterprises.



Producing high-quality raw milk

### 3. High Quality — Taste Our Distinctive Milk

#### Background: Modern Dairy says “No” to Imported Milk Powder

In recent years, the phenomena of “killing cows and pouring milk” have been seen more frequently in the domestic dairy industry. One of the reasons is that a number of domestic dairy enterprises used a large amount of imported milk powder to produce their products, which has led to product structure problems and affected the purchase price of raw milk produced by downstream enterprises. As the cost of cow breeding is much lower in foreign countries, the price of imported milk powder is lower than the purchase price of raw milk in China. This has greatly reduced the cost of dairy products. Such impacts has also made on Modern Dairy, whose raw milk supply was deeply affected. However, facing with such difficulties, the company has insisted on using home-grown raw milk said “No” to imported milk powder to ensure that consumers can enjoy fresh milk with higher nutritional value.

#### Quality of Finished Dairy Products

The quality and safety problems in the domestic dairy enterprises mainly occurred in the supply of raw milk. Modern Dairy has pioneered the creative mode integrated forage planting, cow breeding with zero-distance milk processing. The company use self-produced milk for the production of self-brand dairy products. Fresh raw milk are directly supplied to the processing workshop through the sealed pipeline, which can not only avoid transportation, pre-pasteurization and flash evaporation, but also hold as many nutritious and active ingredients as possible. From milking to processing, the entire process can be completed within 2 hours, which can effectively ensure zero pollution in the entire production process. Modern Dairy has much confidence: We have distinctive milk!

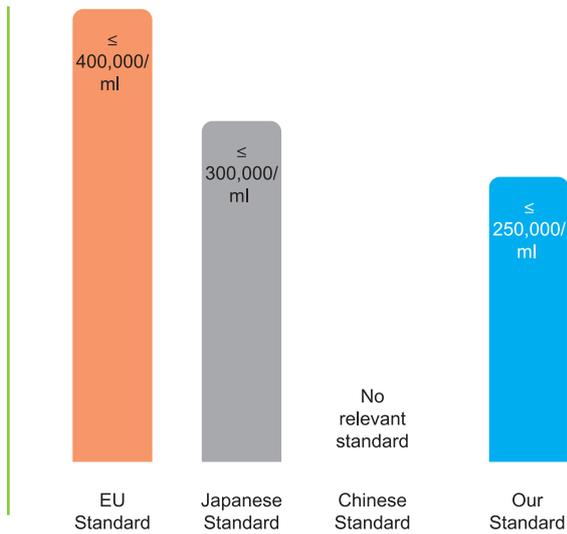


Producing high-quality milk

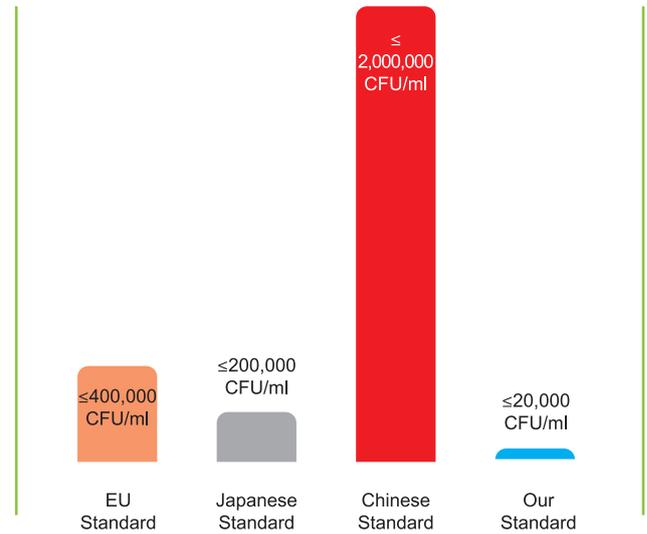
### 3. High Quality — Taste Our Distinctive Milk

Microbes, somatic cell count and protein content are three major indicators to measure milk quality. In these aspects, the parameters of our milk not only meet our national standards, but also exceed the indicators in EU and Japanese standards. All these test quantitative indicators are transparent to consumers and the public.

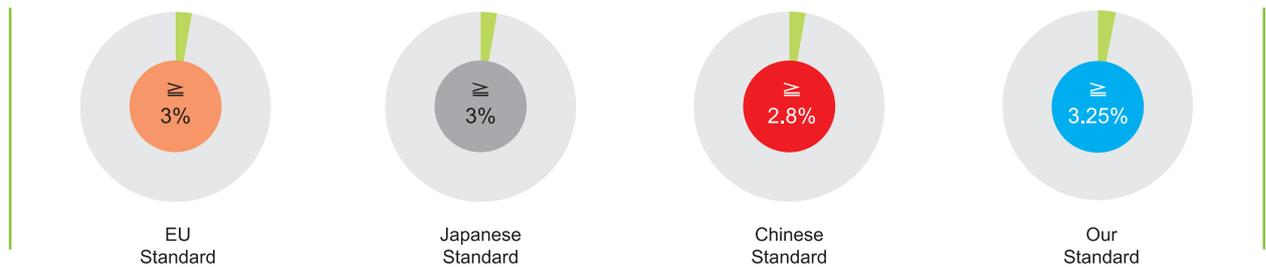
#### Somatic Cell



#### Microbe



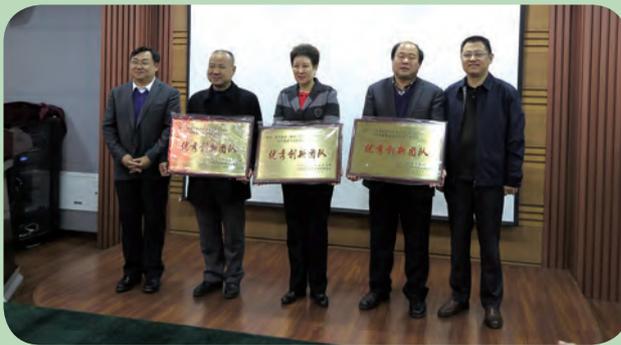
#### Protein



### 3. High Quality — Taste Our Distinctive Milk

#### Case Study: Awarded Outstanding Innovation Team Prize by MOA

On January 10th, 2016, the Forum on China Dairy's Situation and Prospect was held in Beijing. Modern Dairy and Han Chunlin, Vice President of the Company, were awarded the outstanding innovation team prize and individual prize for agricultural science and technology achievements by the Ministry of Agriculture (MOA). As it is equivalent to the first prize for national science and technology achievement, MOA recognizes those who made great contribution to the progress of China's agricultural science and technology. Since we commenced operation, we have been committed to provide consumers with nutrient-rich milk. Thanks to the scientific innovation in milk nutrition and cow feed, our milk has excellent and stable physical and chemical indicators. It is with unremitting efforts of our team and Mr. Han Chunlin that we won the honour for scientific and innovative cow diet recipe.



#### Case Study: Achieving Monde Selection Gold Prize for Three Consecutive Years

Monde Selection is an independent international organization founded by the European Community (EC) and the Belgian Ministry of Economy and Trade in Brussels, Belgium. It is the oldest and most representative and most authoritative food quality assessment organization in the world today. Its awards, known as "Nobel Prize" in the international food industry, were established for monitoring the quality of food. Each year more than 1,000 kinds of goods in the world compete for the award. The competition consists of rigorous assessment and review from the food safety, taste, packaging, raw materials and other aspects. The insiders recognize, achieving Monde Selection World Quality Award means that your products have achieved the passport the countries around the world, including developed countries.

In 2016, Modern Dairy won the Gold Medal for the third time at the Monde Selection. In the meanwhile, it achieved the International High Quality Trophy as well, which is a special award of Monde Selection, only granted to those who achieved the gold prize for 3 consecutive years. The award-winning products have to not only meet the stringent quality standards, but also have long-term stable and reliable quality assurance. Modern Dairy has refreshed the history that Chinese food, especially pure milk, won prizes on the international arena for three years on end. This glory marks the quality of Chinese dairy products has reached world's first-class standard.



### 3.4 LIVING—ASSURANCE OF HEALTH

Milk contains many bioactive substances, whose content and types are beyond your imagination. However, all these active substances, which are of great importance to physiological functions, are vulnerable to chemical change, and even producing harmful by-products. For this reason, Modern Dairy has set up a Quality Assurance Department. They have adopted the related ISO management system and set up professional groups to control the quality in the process of production, environment, technology and other links, in hope to produce fresh and healthy milk products.

#### External quality control

- Keep 24-hour monitoring of milking, production line through visual interface;
- Conduct quality competition by posting daily quality list.

#### Central quality control

- Check the pre-treatment process of fresh milk, pipelines and others through CIP system;
- Introduce the quality safety tracing system for food manufacturing enterprises to carry out forward and backward quality tracing.

#### Case Study: Bengbu Farm — First “Transparent Farm” in China

Modern Dairy’s Bengbu Farm has the first transparent farm in Chinese dairy industry. From milk production to milk processing, each step has been made fully visible in this farm, where visitors can not only see the process of cow milking, but also observe a whole processing chain comprised of high-temperature sterilization, filling operation and even the storage of finished products.

However, Modern Dairy hasn’t limited its transparency to visual production process, but lay more emphasis on “transparent standard”. In other words, it will show the industry standard of the global dairy industry through its “Transparent Farm” program. It will challenge its own comprehensive strength, the acceptance of consumers and the highest standard in the industry development.



# 4. High Profile — Striving for Green Development through Resource Circulation and Conservation

Achieving scientific, large-scale and ecological breeding is the guarantee for Modern Dairy to go to the forefront of the world. Modern Dairy has made the top design of “integration of planting and breeding”, in hope to achieve harmonious coexistence between people, nature and cows. Besides, the company strives to build ecological farms with beautiful surroundings and create a green recycling cycle. All of these have interpreted its concept of high-standard and high-profile development.

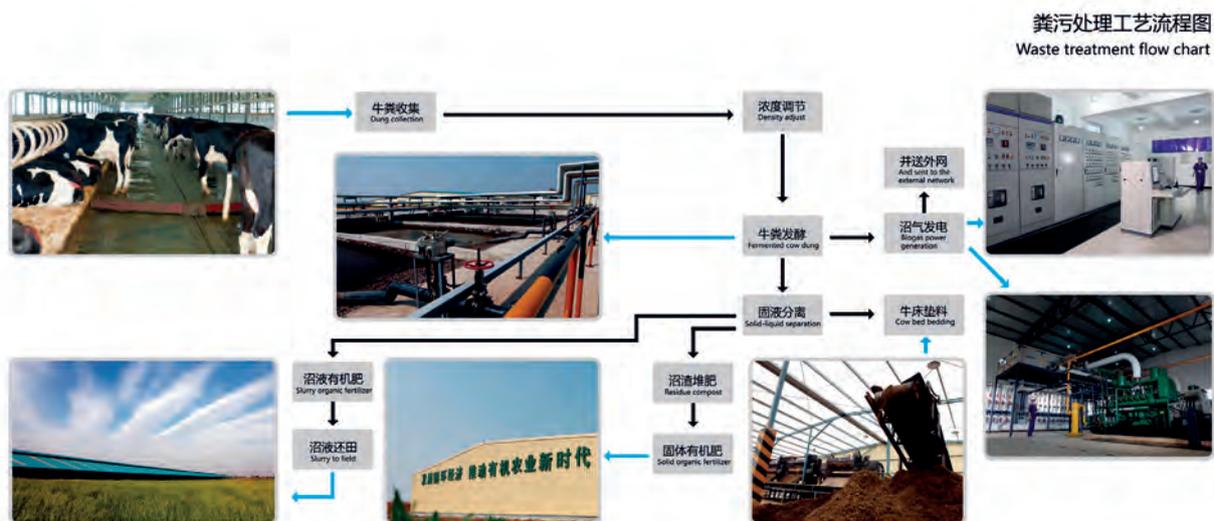
## 4.1 RESOURCE-CIRCULAR FARMS

Modern Dairy has invested about 40 million yuan to equip each 10-thousand-cow farm with an advanced treatment system through which cow waste can be separated and disposed in a harmless manner. By means of this eco-design, the biogas, biogas residue and biogas fertilizer generated by anaerobic fermentation of cow dung can be 100% utilized.

Biogas fertilizer, generated from the fermentation of cow dung, can be spread to crops with tumbrel, pipelines, sprinkling irrigation equipment and others. After harvesting, we repurchase forage grass from the companies which have adopted biogas fertilizer. Such circulation has not only protected the ecological environment, but also reduced the environmental pollution caused by the burning of straw. In this way, we have created a green agricultural economic cycle model featured with “cows — biogas fertilizer — forage grass”.

In the reporting period, our utilization of biogas, biogas fertilizer and biogas residue is listed in the following table.

Resource circulation system at Modern Dairy



## 4. High Profile — Striving for Green Development through Resource Circulation and Conservation

### Biogas

Biogas is processed through biological desulfurization to reduce the content of H<sub>2</sub>S for generating units and biogas boilers. The stable supply of biogas has ensured the generation of electricity, some of which is used for farms and the surplus is transmitted to the grid. The steam from biogas boiler is used for heating coils in the fermentation tanks and the heaters in milking parlor and milking processing workshops. In 2016, the company consumed 117,56 million cubic meters of biogas, producing 630,100 tons of steam and generating 54,098.4 MWh, accounting for over 23% of total annual electricity consumption at Modern Dairy.



### Biogas Residue

Biogas residue, after fermentation, solid-liquid separation and double-extrusion, can be directly used as cow bedding materials. In 2016, we produced a total of 1.67 million tons of biogas residue, all of which were used for bedding materials. The healthy, soft and dry biogas residue has not only reduced the cost of cow bedding materials, but also brought more comfort to cows.



## 4. High Profile — Striving for Green Development through Resource Circulation and Conservation

### Biogas Fertilizer

Biogas fertilizer is a kind of high-quality organic fertilizer produced by harmless fermentation of cow dung. It contains all kinds of nutrient elements, abundant organic matter and a lot of crop growth regulators which are necessary for the growth and development of all crops and play an important role in the improvement of soil. To be exact, it can effectively increase the amount of soil organic matter, solve the soil compaction and contribute to crop growth. While reducing the use of chemical fertilizers and pesticides, it can improve crop yield and quality. These have not only reduced cost for growers, but increased their income as well. At present, a number of our farms have started this business to make profit for the company and turn cow dung into treasure. This liquid fertilizer has become the “gold fertilizer” the hearts of farmers. In 2016, the company produced 5.66 million cubic meters of biogas fertilizer achieved 100% in the utilization of resources.



### Case Study: Restoring a 100-thousand-mu Grassland with Biogas Fertilizer

Bengbu Farm has a herd of 39,000 cows and produces an annual output of 900,000 cubic meters of biogas fertilizer, all of which are spread to a 100-thousand-mu alfalfa planting base around the Farm. By doing so, the Farm has achieved the comprehensive utilization of cow dung. Besides, Bengbu Farm has built a normal temperature milk production line with the capacity of 600 tons. Such a modern farm integrated with plating, breeding and manufacturing has become the most typical model in the world.



## 4. High Profile — Striving for Green Development through Resource Circulation and Conservation

### Case Study: Spreading Biogas Fertilizer to Organic Vegetable Base

Feidong Farm has a herd of 18,400 cows and produces an annual output of 500,000 cubic meters of biogas fertilizer. The Farm has an organic vegetable base featured with the circulation of “cows – biogas - vegetables”. In the vegetable greenhouses, they have replaced chemical fertilizer with biogas manure. As no chemical fertilizer is used, its cost has dropped by 220 yuan per mu. More importantly, the taste and quality of vegetables and fruit, fertilized by biogas manure, have been well received in the market, known as non-polluted vegetables.



Modern Dairy attaches great importance to the impact of its production and operation on the environment and has developed a strict emission management system. In addition to 100% utilization of cow dung and other emissions, we are also concerned about the scientific and proper treatment of waste water and gas, hazardous waste and greenhouse gas, aiming to effectively put emission reduction into practice.

- Waste water: We have channeled the waste water generated from the liquid milk plant into the farm to cool cow house, flush cow dung passage or irrigate the farmland so as to avoid its discharge.
- Waste gas: We have properly treated the waste gases generated from cowhouses, biogas station and heating boiler to meet the discharge standard.
- Hazardous waste: We have signed contracts with qualified professional enterprises to treat hazardous waste, which mainly consist of medical waste, laboratory reagent bottles and others.
- Greenhouse gas: We have reduced its emission by upgrading equipment and technology, improving energy efficiency and making comprehensive use of resources.

## 4. High Profile — Striving for Green Development through Resource Circulation and Conservation

### 4.2 SAVING RESOURCES

Modern Dairy keeps improving its conservation-minded management system. Through the transformation and upgrading of equipment and standardized operation, the Company works to reduce the consumption of water, electricity, coal, diesel and other resources. Besides, Modern Dairy has developed assessment criteria and implemented monthly competition to enhance conservation awareness on each farm and promote the improvement of their management.

- Improve lighting facilities
- Control fan operation
- Avoid equipment idle
- Use natural precooling
- Use biogas power generation
- Use solar power generation
- Conduct monthly settlement, check & analysis



#### Cases

### Shuangcheng Farm

Shuangcheng Farm can save the power consumption of the refrigerator by 27,000 KWh per month while keeping the milk fresh from pail to lips by making use of natural cold air from air-cooled device to pre-cool the milk to 4 -8 degrees.



- Replace coal with biogas for heating and steam burning
- Raise the temperature of boilers

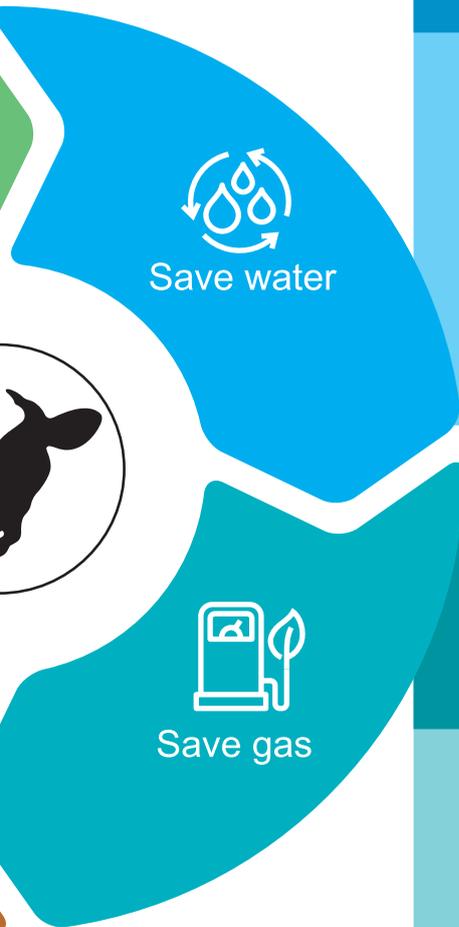


#### Cases

### Hefei Disinfection Room

Hefei Disinfection Room can save about 100 tons of coal per month by replacing steam heating with solar energy to heat domestic water.





- Increase the quantity of watermeters
- Use automatic spray
- Control the frequency of flush
- Adjust tank water level
- Use biogas fertilizer to flush dung passage
- Recycle rainwater & reclaimed water

### Cases

#### Feidong Factory

Feidong Factory has built a clean-water reservoir and laid pipelines to flush cow dung pipes with recycled water and replace tap water for making water curtain to cool cowhouses in summer. Through the recycled water project, the Farm can reduce waste water emission by 190,000 tons and save water costs by more than 400,000 yuan.



- Operate equipment strictly
- Moderate vehicle load
- Standardize operating vehicle
- Check fire system

### Cases

#### Saibei Farm IV

Saibei Farm IV can reduce the consumption of natural gas by 510,000 m<sup>3</sup> by making use of its home-grown biogas and offering the surplus biogas for liquid milk production.



# 5. High Welfare — Achieving Common Development with Employees

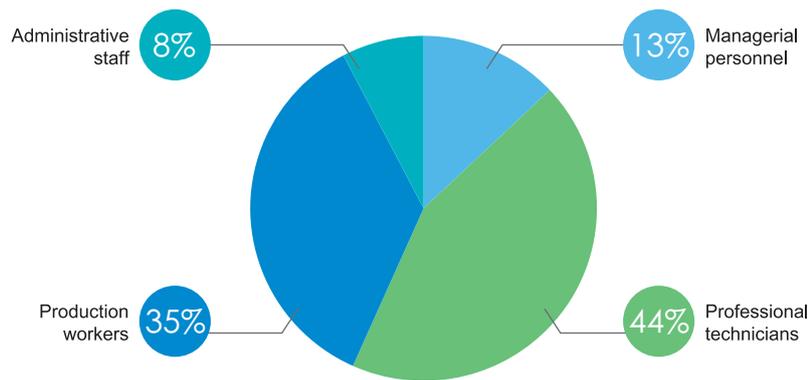
Adhering to the people-oriented concept in the employment, we have established a comprehensive training system and developed a detailed career development plan for employees, in hope to bring our care, help and warmth to each employee, enhance their cohesion and sense of corporate identity and increase their satisfaction and happiness.

## 5.1 SAFEGUARDING THE RIGHTS AND INTERESTS OF EMPLOYEES

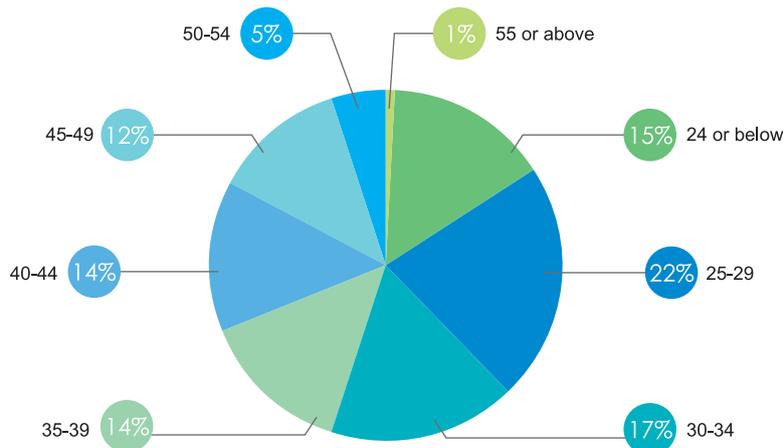
We strictly abide by the Labor Law and the Contract Law of PRC to protect the legitimate rights and interests of employees. We also fully follow the Rules on Forbidding Child Labor and other relevant regulations to put end to forced labor and child labor. In the recruitment and daily work, we oppose any type of discrimination caused by sex, age, religion, race, geography, physical condition and others to give fair treatment to employees. Modern Dairy has established a sound, multi-channel recruitment system, with a transparent and equal promotion process and salary incentive system. In 2016, Modern Dairy was named “Anhui Demonstration Unit for Labor Security” by the Provincial Department of Human Resources and Social Security.

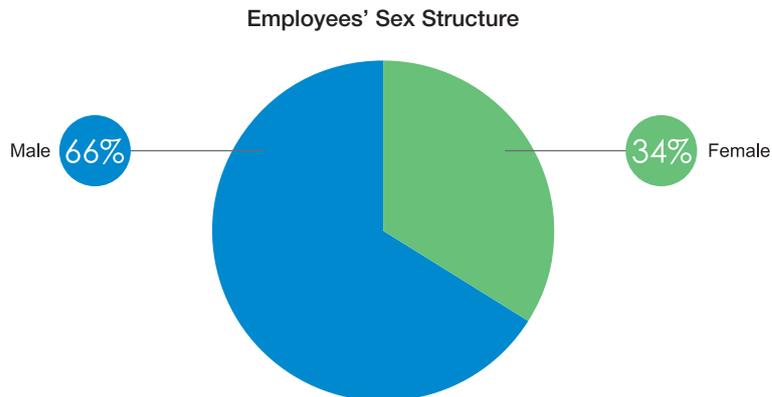
In 2016, there are 6,051 employees in Modern Dairy. We had no violation of related rules and regulations on child labor and forced labor and achieved 100% in the labor contract rate and insurance coverage rate.

Employees' Post Structure



Employees' Age Structure





## 5.2 ENSURING THE SAFETY AND HEALTH OF EMPLOYEES

Modern Dairy attaches great importance to the implementation of the responsibility for the health and safety of employees, and constantly improves the safety and health management system. The company carries out safety training and ensures production safety in place. We strictly abide by the Safety Production Law and the Occupational Disease Prevention Law of PRC and other laws and regulations. We have established Safety Accident Contingency Plans, Occupational Health and Safety Affairs Manual and other management systems to maximize the safety and health of employees. In 2016, we achieved 100% in the occupational health examination coverage rate.

We have established a sound safety management system, focusing on the safety management in the production area and the fire safety of infrastructure. On the basis of prevention in advance, response during the accident and reflection afterwards, we have formed a complete closed-loop management to make safety management more efficient and minimize the accident rate.

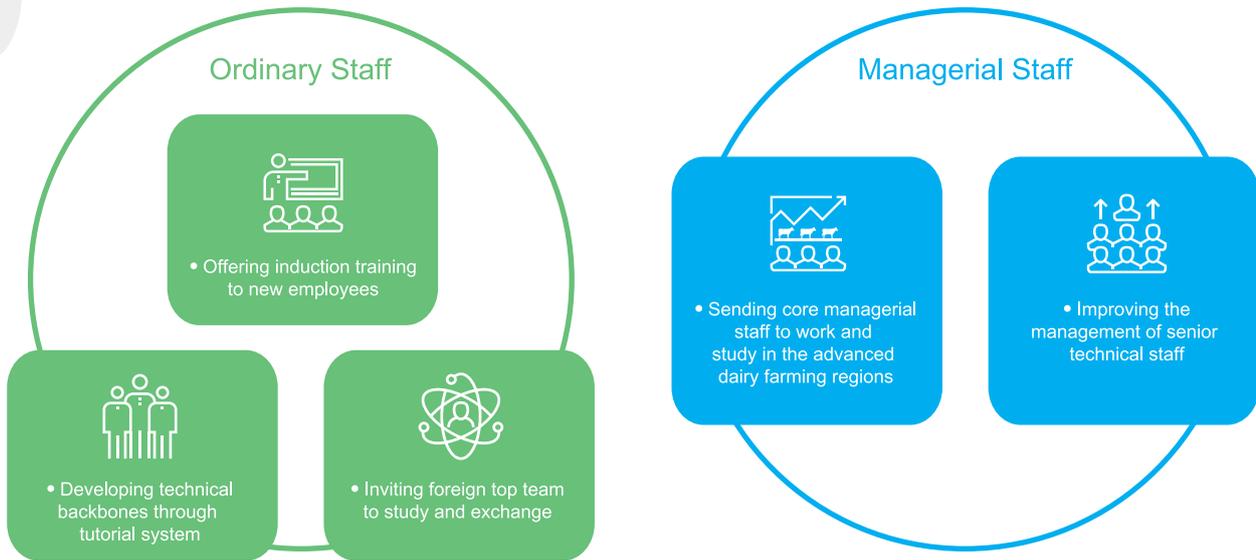
Safety regulations	Safety training	Safety protection	Medical examination
<ul style="list-style-type: none"> <li>Develop Regulations on Occupational Health Management, Labor Safety Hygiene Special</li> <li>Section and other regulations. Supervise the occupation disease prevention of each farm;</li> </ul>	<ul style="list-style-type: none"> <li>Organize OHS training for relevant staff and leaders.</li> <li>Provide employees with the training on OHS and operational norms.</li> </ul>	<ul style="list-style-type: none"> <li>Provide overalls, masks, gloves, boot and other protective appliances;</li> <li>Intensify the supervision over the wearing condition of labor protection appliances.</li> </ul>	<ul style="list-style-type: none"> <li>Establish employee health files;</li> <li>Carry out occupational diseases and routine medical examination regularly;</li> <li>Encourage employees to make individually medical examination</li> <li>Do its best to help employees cure their occupational diseases.</li> </ul>

## 5.3 CONTRIBUTING TO EMPLOYEES' GROWTH AND SUCCESS

We always insist on the idea of combining the growth of employees with the development of the company. For this reason, we take the initiative to design career paths for our employees and expand their development space. In the meanwhile, we work to enhance their professional ability, quality and spirit and build the broadest arena for their career development.

## 5. High Welfare — Achieving Common Development with Employees

Surrounding the development strategy and the demands of employees, Modern Dairy has established a training system where all employees can have different levels of training programs in accordance with their jobs and duty. This can not only provide a platform for them to realize their self-development and enhance their professional capability, but also reserve a number of talents for better operation of our company.



In the reporting period, our training is shown in the following table:

Training Type	Training Hours
Professional training	14,625
Management training	3,720
Other training	71,755
<b>Total</b>	<b>90,100</b>

### Case Study: Sharing Advanced Technology with Global Counterparts

From July 3rd to 8th, 2016, World Buiatrics Congress, held in Dublin, the capital of Ireland, brought together the world's leading experts in the field of cattle diseases, aiming to improve the world's dairy management level. Cao Ruzhou, Deputy Director of Modern Dairy, attended the conference, sharing and exchanging the most advanced breeding experience with "big names" from all over the world, learning from advanced international technology and applying it to production practice of the company.

**Case Study: Video Training Program on Tuesday**

Our HR Department initiated and organized the “Tuesday Video Training” in 2016 to carry out professional knowledge and management training for employees. The program is designed to provide a solid and practical training for employees in different positions. On Tuesdays, our lecturer gives on-site training on time for trainees, who can take part in it on site or online. We organized 49 trainings on production safety, OAS, relevant system and others, through which the trainees have effectively enhanced their professional quality and skills.

**Guiding Career Development**

Modern Dairy works to expand employees’ career development path and establishes a clear and comprehensive channel. While focusing on internal fairness of promotion mechanism and external competitiveness, we have established a position evaluation program to follow up the performance of employees. Besides, we promote the development of professional and specialized talent team to provide employees with a wider stage for development.

**Path for Managerial Excellence**



**Path for Technical Excellence**



**Path for Sales Excellence**



**Case Study: Talents Reserve Program**

In order to satisfy the needs of rapid development and smooth the promotion channel for internal employees at Modern Dairy, we have implemented a training mechanism for reserve leaders. We hope to find, develop and train back-up talents in a proper way. According to the existing post staffing, each company makes personnel reserves in a ratio of 1:1, developing interview plans and organizing the competition for a post. In 2016, we selected 19 qualified people as back-up management from our farms, providing them with training on leadership and influence and helping improve their expertise, leadership skills and other integrated quality.

## 5. High Welfare — Achieving Common Development with Employees

### 5.4 WORK-LIFE BALANCE

Modern Dairy pays great attention to humane care for employees. While working to improve their living conditions, we care about their physical and mental health of each. Besides, a variety of recreational and sports activities are held at Modern Dairy to keep their work-life balance.

Modern Dairy regularly organizes team building or friendship parties to encourage employees to be team members, enhancing the vitality and strengthen the teamwork. Besides, the company plans and organizes a variety of cultural and sports activities for employees to ease their work pressure, promote mutual exchanges, and enhance their happiness. By doing so, we work to create a harmonious and cohesive atmosphere.



Planting trees



Having a basketball match



New Year's Performance



Vegetable garden in the mountain

## 6. High Vision — Promoting the Industry and Community Development

Modern Dairy is committed to enriching the urban and rural markets, improving people's living standard, optimizing the rural industry structure. By doing so, we aim to increase the income of farmers and promote new rural construction. While encouraging the development of related industries such as stockbreeding, food machinery, packaging and modern logistics, we take the initiatives to assume the social responsibility for the impact of our own operation. We pay much attention to making all-round communication with stakeholders and devote ourselves to the positive interaction between our farms and community. Besides, we give full play to the advantages of industrial clusters, build a responsible supply chain and tap and release the community potential to promote new rural construction and modern agricultural development.

### 6.1 THREE RURAL SERVICES

Chinese government has made out the plans to accelerate the development of modern agriculture, cultivate new business entities and enhance the development vitality in rural areas. In response to these plans, we make use of our own operation and management characteristics and gives full play to the advantages of production chain to integrate ourselves into the services to agriculture, rural areas and farmers. Through more cooperation, sharing and exchange of upstream and downstream enterprises, we aim to achieve win-win development results between dairy industry and agriculture and good interaction between enterprises and community. Besides, we promote the integration of planting and breeding to increase the income of community farmer, improve rural environment and promote agricultural development.

In 2016, the Company cooperated with local farmers and growers to plant more than 800,000 mu of cultivated fields, including 500,000 mu of silage corn. As a result, the company purchased 1.1 million tons of silage corn. This has not only boosted the local agricultural economy development, but also reduced the consumption of fertilizer by 20-25kg per mu. Modern Dairy has effectively carried out the policy of the National Ministry of Agriculture. More importantly, it has received strong support of local government and gained praise among surrounding growers.

#### Promote agricultural development



- Replace chemical fertilizer with biogas fertilizer to increase crop output and rural incomes;
- Drive the rural areas to take the way of agricultural and rural industrialization and stimulate local economic development;
- Promote the development of supporting industries such as forage planting, feed processing, transportation, packaging, trade and others.

#### Improve rural environment



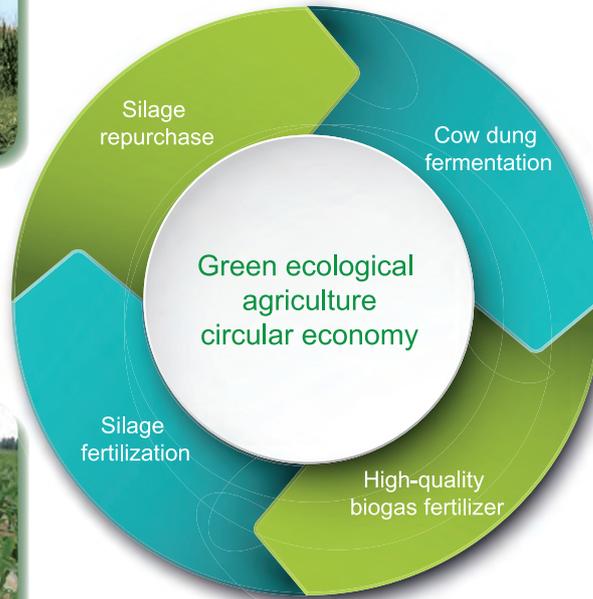
- Recycle straw to reduce incineration and improve the atmospheric environment;
- Provide manure and reduce the use of chemical fertilizers to increase soil fertility.

#### Increase farmers' income



- Employ local idle employees and increase employment opportunities. In 2016, we achieved 63.74% in local employment rate.
- Share agricultural knowledge to help farmers grow crops in a scientific manner;
- Encourage migrant workers back home through high welfare and benefits to bring more family reunion.

## 6. High Vision — Promoting the Industry and Community Development



### Case Study: Saibei Farm drives the development of three rural services

Saibei Farm has a herd of 36,100 cows and produces 850,000 cubic meters of biogas fertilizer each year. Since its establishment, the Farm has fertilized over 200,000 mu of arable land to grow potatoes, corn, vegetables, forage grass, wheat and other crops, and signed a contract to raise fish in 13,000 mu of fishpond with biogas manure. These actual deeds have promoted the development of local side-line range of agricultural products and increased the income of farmers. With the strong support of the local government, the Farm has built sprinkler irrigation, pipe and other equipment and achieved agricultural order economy by repurchasing forage grass, silage and other feed. Saibei Farm has employed 680 local people, including 4 disabled people, by which the Farm has not only increased the local employment rate but also shared the development achievements with the public.



Saibei Farm

### Case Study: Sharing agricultural knowledge

Modern Dairy Shuangcheng Farm gave a positive response to national call, promoting circular economic mode integrated with planting and breeding and taking actions to spread biogas fertilizer technology and agricultural knowledge. Through leaflets, wall advertising and other channels, the surrounding farmers have got a better understanding of scientific use of biogas fertilizer. At present, the Farm has two pipelines and 8 fertilizer carriers, which can supply biogas fertilizer to more than 10,000 mu. Biogas fertilizer has been in short supply. Shuangcheng Farm has signed contracts with surrounding farmers to purchase nearly 40,000 mu of silage corn. The Farm and farmers have achieved win-win results through the effective combination of silage corn and biogas fertilizer, which has not only increased the sales of biogas fertilizer, but also reduced the cost of fertilizer and gradually increased soil fertility.

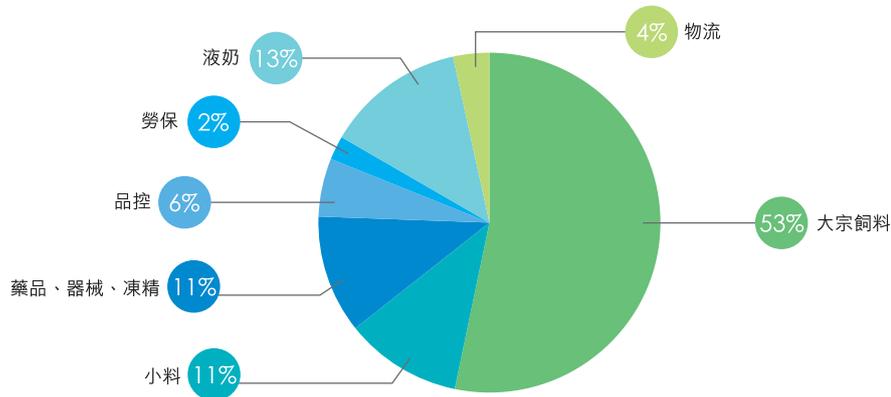


## 6.2 ACHIEVING WIN-WIN RESULTS WITH PARTNERS

Modern Dairy, as China's largest supplier of raw milk, shoulders the mission of industry development and work hard to build a responsible supply chain. Over past ten years of hard work, we have taken the initiative to adapt to and lead the new normal in the development of agriculture, participating in the reform of supply side, advancing the standardized operation throughout the supply chain, deepening the cooperation mechanism among the upstream and downstream enterprises of the industry chain and promoting the stable, healthy and prosperous development of the industry. We cannot develop without the overall layout and careful design of the entire supply chain. Through strict quality control over forage materials, packaging, logistics and other links, we urge those agricultural enterprises in the place where we operate to ensure the health of dairy cows and milk quality.

By the end of 2016, we have 477 suppliers, including 18 foreign suppliers. From the source of the supply chain, we give top priority to the resources of suppliers. On the one hand, we sign contracts with local feed companies to boost the positive development of local economy, reduce feed transport costs and ensure feed quality, nutritional content and stable supply. On the other hand, we choose to cooperate with large domestic feed companies. While ensuring the high quality supply, we participate in the price analysis and market competition mechanism in the industry.

## 6. High Vision — Promoting the Industry and Community Development



We have formulated strict rules for the access, withdrawal and management of suppliers. On the one hand, we can ensure to procure high-quality products and services. On the other hand, we can work together with our suppliers to standardize operation and achieve common development. Besides, we strengthen communication with suppliers through various channels to safeguard their basic rights and boost the development of industry chain. We invite our suppliers to involve in our inventory adjustment strategy. Through the change of thinking from short-term procurement to the long-term strategic supply chain management, we will achieve win-win cooperation with suppliers.

### Entry conditions



- Have qualified certificate required by national laws and regulations;
- Have a sound management system;
- Meet the production conditions.

### Management rules



- Establish Rules for Supplier Management;
- Manage suppliers by different levels;
- Make regular performance evaluation and quality sampling;
- Feed back the problems and take rectification.

### Elimination rules



- Put unqualified suppliers into sleeping period upon evaluation;
- Put the suppliers who refuse to take rectification into alternative list.
- Establish a blacklist mechanism

### 6.3 BENEFITING PEOPLE’S LIVELIHOOD THROUGH PUBLIC WELFARE

We actively communicate with stakeholders around our farms and integrate their expectations and demands into our operation strategy. While devoting to the pursuit of our own development, we managed to win the trust, understanding and support of community residents. Besides, we proactively give back the local communities and devote to public charity and volunteer activities to contribute to society.

#### Case Study: Coming to the Forefront of Flood Fighting

On July 3rd, 2016, Bowang District, where Maanshan Farm exists, started flood prevention level I emergency response because of the heavy rain. As the local houses and farmland were seriously destructed, a large number of residents were transferred to safe areas. Facing the extreme shortage of living materials, Maanshan Farm took immediate action to donate 50,000 boxes of pure milk to the affected people and help them ride out the storm. On July 4th, Maanshan Farm Flood Fight Team, whose members were drawn from different departments, was established and led by the President and two assistants. They rushed to Xinshi Town in Bowang District, the forefront of disaster, to help fight against the flood with concerted efforts.



#### Case Study: Modern Dairy’s Care Action “Gratitude and Repayment”

On June 1st, 2016, Modern Dairy’s Feidong Farm and Feidong Liquid Milk Plant organized a volunteer team to visit the elderly in the Central Nursing Home of Bailong Town, Feidong County, where they host a “Gratitude and Repayment” activity. The volunteers brought the elderly Modern Dairy’s pure milk, normal-temperature yogurt, drinks for elderly people, watermelon and others. Besides, they went for a walk and chatted with the elderly and helped to clean their rooms. By making voluntary contributions, some of volunteers also showed their loving care to those elderly people in need.



## 7. Prospect

Looking ahead to 2017, there will still be complicated development background in both domestic and foreign dairy industry. Faced with opportunities and challenges, Modern Dairy will hold fast to its objectives of “building the world’s most advanced farm, producing world’s best milk and achieving harmonious development between humans, cows and nature.” While building harmonious relationships with stakeholders, we will give play to the leading role of dairy industry. More importantly, we will promote the transformation and upgrading, and steady development of China’s dairy and strive to enhance the confidence of Chinese consumers.

Ensure the quality of raw milk. We will continue to control milk quality from the source. While relying on the integrated development mode of planting forage grass — breeding cows and processing milk products, conducting scientific breeding management and adopting more stringent raw milk standards than those at home and abroad, we will effectively carry out epidemic prevention and keep the farm operating safely so that we can ensure the production of high-quality raw milk.

Provide satisfactory milk. We will bring 2-hour production advantages into full play and ensure the feature of our milk products from the aspects of time, cost and quality. Starting with the demand of downstream markets and consumers for high-quality milk production, we will make innovation in the development of products, expand sales channels, achieve structural upgrading and increase the benefits of our brand.

Promote environment-friendly operation. We will promote scientific, large-scale and ecological cow breeding. For this reason, we will strengthen the harmless treatment of cow dung and waste and improve the ability of recycling resources to form a green eco-circle. What’s more, we will build resource-conservation farm, upgrade production conditions and standardize equipment operation to achieve energy conservation and emission reduction.

Assume social responsibility. We will continue to explore a new development path of planting and breeding industry and make greater efforts to serve agriculture, rural areas and farmers. Through more integration of agriculture and breeding industry chain and large-scale intensive management, we will improve the development mode for green agricultural circular economy and increase the employment and income of local people. Besides, we will provide our employees with a broad development platform, protect their legitimate rights and interests and create a good corporate culture. We will adhere to integrity management, devote to community public welfare to increase social well-being and promote social harmony and development.

Modern Dairy will keep its eyes on the problems of milk yield per cow, milk quality and breed scale and the crises of food safety, epidemic prevention and environmental safety. Around such three major problems and crises, we will make in-depth exploration of new development mode and path. In the meanwhile, we will integrate the implementation of social responsibility into business management and strive for the simultaneous growth of economic, environmental and social benefits to write a new chapter for the sustainable development of Modern Dairy.