



Muyuan Foods Co., Ltd.

2023 Environmental, Social, & Governance Report



About the Report

Muyuan Foods Co., Ltd. (hereinafter referred to as "Muyuan", "Muyuan Foods", "the Company" or "we") hereby issues the 2023 Environmental, Social, and Governance (ESG) Report. Adhering to the corporate core value of "Creating Value, Serving Society", we fully implement the United Nations' Sustainable Development Goals (SDGs), demonstrating our reflections and actions on sustainable development management. This report aims to respond to the expectations and concerns of our stakeholders and facilitate better communication with them.

• Report Scope

Unless otherwise stated, the disclosure scope of this report aligns with the scope of Muyuan's 2023 annual report, including Muyuan and its subsidiaries. The coverage period is from January 1, 2023 to December 31, 2023, with some descriptions extending beyond this period. This report is disclosed on an annual basis.

• Reference Standards

The Report is prepared to meet applicable standards for disclosing sustainable development information, with consideration of the industry background and features of the Company. Key references for this report include the following domestic and international CSR reporting standards and guidelines:

The Sustainability Reporting Standards of the Global Reporting Initiative (GRI Standards 2021) issued by the Global Sustainability Standards Board (GSSB)

IFRS Sustainability Standards No.1-General Requirements for Disclosure of Sustainability-related Financial Information (IFRS S1) and *IFRS Sustainability Standards No.2-Climate-related Disclosures (IFRS S2)* issued by the International Sustainability Standards Board (ISSB)

Self-Regulatory Supervision Guide for Listed Companies on the Shenzhen Stock Exchange No.1-Main Board Listed Companies Standardized Operation

Shenzhen Stock Exchange Self-Discipline Regulatory Guidelines for Listed Companies No.1-Business Handling

Guidelines on Formulation of Social Responsibility Reports (GB/T 36001-2015)

The ISO 26000: Guidance on Social Responsibility issued by the International Organization for Standardization (ISO)

The Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS ESG5.0) issued by Chinese Academy of Social Sciences (CASS)

• Language Versions

This report is available in both Simplified Chinese and English. In case of any discrepancies in interpretation, please refer to the Simplified Chinese version of the report.

• Availability

The report is available in both print and electronic form. The online versions could be read and downloaded on CNINFO (www.cninfo.com.cn), a website accredited by China Securities Regulatory Commission ("CSRC") for information disclosure of listed companies, and the Company's website (www.muyuanfoods.com).

• Currency

Unless otherwise specified, all monetary amounts quoted in the Report are presented in yuan ("CNY").

• Notes to the Report's Data

The report's data is all extracted from internally collected data, public documents, sustainable development cases reported by subsidiaries and qualitative and quantitative questionnaires prepared for reporting.



Contents

About the Report	001	03 Sustainable Corporate Governance	017	05 Pragmatic Responsibility Assumption	067	Future Prospects	109
Message from the Chairman	005	Corporate Governance	019	Product Quality	069	Appendix	111
01 About Muyuan	007	ESG Management	024	Happy Employees	083	Muyuan's ESG Key Performance	111
Corporate Culture	007	Risk Management	028	Sustainable Supply Chain	096	GRI Index	115
Corporate Overview	010	Business Ethics	030	Community Development	101	Reader Feedback Form	120
Operational Performance	010	Innovative Development	032	Industry Sharing	105		
ESG Milestones	011	04 Environmentally Friendly Development	035				
Annual Awards and Recognition	012	Low-carbon Actions	037				
02 2023 ESG Highlight Performance	013	Green Production	049				
		Sustainable Agriculture	061				
		Ecological Restoration and Biodiversity Conservation	064				

Message from the Chairman



Chairman:



2023 was a year full of challenges and opportunities. New technologies such as digitalization, artificial intelligence, new energy, and synthetic biology continued to iterate, bringing enormous innovation space, and various industries entered the stage of high-quality development.

Muyuan people remain true to our original aspirations, always adhering to the core values of "Creating Value, Serving Society." We seek breakthroughs at the front line of the business, persist in technological innovation and continuously improve the governance system so as to promote high-quality development, manage uncertainty with certainty, adhere to innovation-driven development, and jointly create a better future.

Seek Green Development and Set New Standards

Environmental protection is the priority of high-quality development. Adhering to the principles of "production with waste reduction, resource utilization, harmless treatment, and ecological recycling," Muyuan sets five environmental protection goals of "zero emissions, no hidden dangers, no odors, smog reduction, and carbon emission reduction" to promote crop-livestock cycle, develop and utilize new green energy, reduce energy consumption, and achieve green and sustainable development.

Since 2000, Muyuan has been implementing low-soybean meal diet technology and shared it with the industry in 2021. In 2023, Muyuan's soybean meal consumption decreased by 1.6% compared to 7.3% in 2022, less than half of the industry's average consumption. If this technology is promoted nationwide, it can reduce 20 million tons of soybean imports, save 150 million mu(10 million hm²) of land, and reduce nitrogen emissions by 820,000 tons.

Through environmental protection technology innovation, Muyuan has achieved crop-livestock cycle and resource utilization. By innovating the new pig house with air filtration, the air consumption has been reduced by two-thirds, the air is deodorized and sterilized before discharge, and odorless treatment and harmonious development are achieved without disturbing the public. Moreover, by conducting low-carbon actions, our carbon emission intensity has reduced by 3.4% compared to last year.

Assist Farmers and Promote Common Development

Adhering to the principle of "benefiting the locality where we are", Muyuan actively assist and benefit farmers, support education development and etc. We promote crop-livestock cycle and try to help farmers increase their income. Each farm is an ecological circular economy entity, promoting the resource utilization of manure and assisting farmers in reducing costs and increasing efficiency. In 2023, Muyuan served 4.52 million mu(301,333hm²) of farmland, improved 229,500 mu(15,300hm²) of saline-alkali land, managed 88,000 mu(5,867hm²) of desert, conducted agricultural technology services 9,759 times, trained 298,300 farmers, reduced fertilizer usage by 146,800 tons, increased farmers' income by 352.27 yuan/mu, and achieved a total income increase of 1.482 billion yuan. Over the past six years, Muyuan has cumulatively reduced agricultural input and increased income by 4.472 billion yuan.

Nurturing a stellar university student can kindle a family, sow seeds of hope, pave the path to a brighter future, and foster societal prosperity. Muyuan continues to carry out the Ju'ai Education Assistance Project, with a total donation of 365 million yuan, supporting 82,000 college students, benefiting 626,000 elementary school students, rewarding 26,000 outstanding teachers, so as to support the development of education.

Stick to Innovation and Embrace Openness and Sharing

Muyuan's development history is a history of innovation. Focusing on the main business, Muyuan leads development with technological innovation and has explored twenty core technologies such as "breeding, feeding, health, rearing, and slaughtering", driving breakthroughs at the front line of the business. Innovation supports our growth, and innovation reveals that each pig has a potential profit space of 600 yuan and the entire pig industry has a potential value space of 400 billion yuan to explore. Our value lies in using innovation to improve production efficiency, reduce breeding costs, and provide higher-quality pork.

Behind innovation is the support of talents. Muyuan attaches great importance to talent cultivation and regards talent as the foundation of corporate development. Muyuan adheres to the values-based approach in talent selection and continuously improves our talent development system. At the same time, we cultivate interdisciplinary talents, build career platforms, and help them grow. Daring to entrust young talents with significant responsibilities, Muyuan encourages more young individuals to step forward, unleash their talents, make

achievements, and contribute to the healthy and sustainable development of the pig farming industry.

Muyuan is open to sharing to foster mutual development. In June 2023, Muyuan held an open day event themed "Four Hundred Billion Space, Co-creation, and Sharing," where we shared new technologies and experience with peers, shared cutting-edge technologies in pig breeding, nutrition, veterinary medicine, and information technology, and rewarded breeding experts, veterinary experts, scientists, etc., who contributed to the industry. Such activities contributed to the sustainable and healthy development of the industry.

Muyuan has been raising pigs for over 30 years, starting with 22 pigs and now producing 63.82 million heads of pigs annually, ranking the first in the world. Throughout our journey, we've felt that pig farming is deeply traditional yet technologically cutting-edge. Stepping into a new era, innovation has no limits. The Company will continue to focus on product quality, technological innovation, green development and so on while steadfastly promoting openness and sharing, thus laying a solid foundation for advancing sustainable development.

Finally, I sincerely appreciate all employees for their dedication and contributions to Muyuan's development. I would like to express gratitude to the government, consumers, shareholders, investors, media, community members, and all stakeholders for their continuous attention and support to Muyuan as well. I also appreciate the trust and recognition from partners throughout the industry. Muyuan would move forward together with everyone, shoulder to shoulder, to create a brighter future for all!

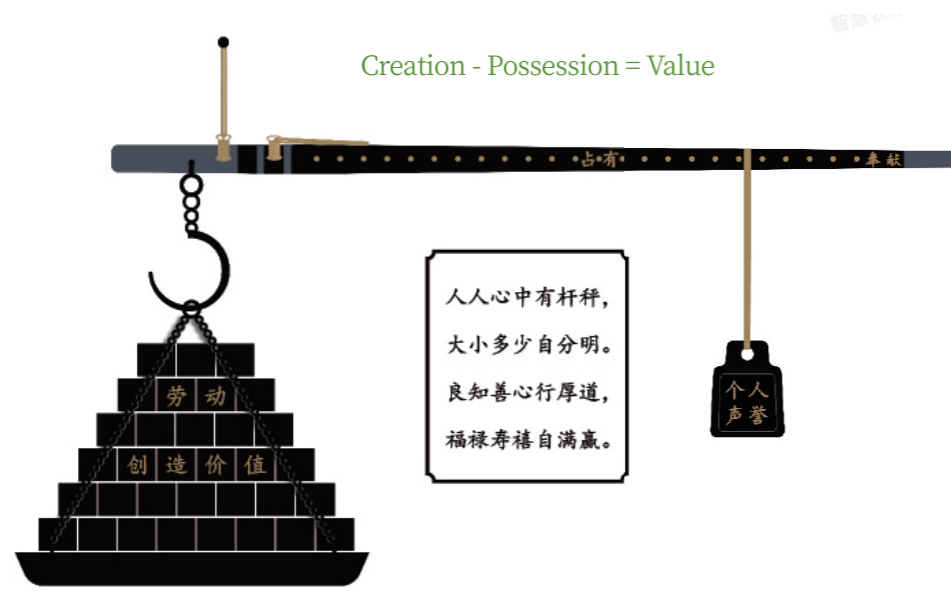
About Muyuan

Corporate Culture

Muyuan leads and drives its development with its values. Embodied in the Basic Law of Muyuan, Muyuan's corporate culture and value system take "creating value and serving society" as the core. This system has always been shaping all operation activities of our business units and subsidiaries, and affecting how every Muyuan staff thinks, acts and feels from the inside out.

Who We Are	Producer of high-quality pork; Promoter of social progress.
Our Mission	Producing safe and healthy pork products for the public; Promoting healthy industry development.
Our Vision	Serving people with safe pork to help them enjoy a richer life; Becoming a respectable company.
Business Motto	Respect nature, love people, and follow the natural law.
Culture Theme	Strict self-discipline, courage to take responsibility, pursuit of excellence, serving the society.

Muyuan Value Formula



Basic Law of Muyuan

- I. Business Purpose:** Produce healthy foods for society to improve the life quality of the public, helping people enjoy an abundant life.
- II. Core Values:** Create value and serve society; be upright outside and inside, and advance social development. External value outweighs internal value; long-term interests outweigh immediate interests. The value of humans outweighs the value of things; common value outweighs individual value. Social value outweighs profit value; customer value outweighs production value.
- III. Business Selection:** Create substantial value instead of a bubble with our own strengths.
- IV. Business Principles:** Maximize social value. Never pass on costs, never shirk responsibilities, and never leave hidden dangers. Take beneficial but not harmful or controversial actions. Persist and never waiver in value creation. Never expect fluky profits or yield to selfish interests. Object to commercial bribery and refuse unearned or illegal gains. Never engage in speculation, tricking, or dispossession. Never engage in underhand money deals. Be strict in self-discipline, be brave to shoulder responsibilities, and pursue perfection.
- V. Employee Benefits:** Bring benefits for employees. We regard employees as family members, help them grow and build a career platform for helping them achieve self-fulfillment. We are determined to bring happiness to each employee and each family. Everyone can enjoy a happy life here.
- VI. Customer Benefits:** Make cooperation conducive to customers' interests. Never impose whatever you dislike on others, but showing towards others what you yourself would like. Always feel for others and treat others with honesty and sincerity. We take customers as siblings and help each other to realize fairness, uprightness, openness, and transparency in business progress and make true simple, worry-free, efficient and win-win cooperation.
- VII. Social Responsibility:** Put knowledge into action to benefit society. Achieve the simultaneous improvement of economic benefits, ecological benefits, and social benefits. Promote an environment-friendly and animal-friendly business pattern. Promote circular economy and cleaner production to reduce negative influence on the atmosphere. Upgrade continuously the standards of food quality and actively build an industrial ecology to promote sustainable development. Keep carrying out public welfare undertakings to support education and promote social and economic development.
- VIII. Constant Development:** Adhere to the values and construct a platform for sharing; keep pace with the times and explore the unknown; face challenges with courage and go beyond selves; be selfless and build Muyuan a long-lasting company.



Tribute to Pigs

A pig lives an ordinary life.

It comes to the world quietly and leaves quietly.
 Everything it has had already been given when we see it gone.
 A pig lives a great life indeed!
 The spirit of the pig mirrors that of the Muyuan people.

A pig lives a dedicated life.

It sacrifices its life for the happiness of human beings.
 Pigs prove to us that is another life that sustains one life; one life is sacrificed whilst another is benefited.
 Muyuan people shoulder the lofty mission of producing pork foods and creating a high-quality life for the public. Just like pigs, we are ready to give everything we have to make people's lives better.

A pig lives a happy life.

Despite the sacrifice of its precious life, a pig does not care much about how long it lives or how much it eats, but grows only big and strong, happily, and quickly.
 Pigs prove to us that is the quality rather than the length of life that matters. We should exchange the length of life for the quality of life without regrets, just like pigs.

A pig lives a philosophic life.

Whilst people are still thinking about the meaning of life and won't let go of fame and fortune, pigs have given a simple and clear answer, using their lives: the true meaning of life does not consist in how much you take, but in how much you can give to society and your fellow human beings.
 So we cease to merely stand back discussing the meaning of life. We are determined to create value, with a mind full of more dedication and less scheming, like pigs.

We are grateful to pigs.

We raise pigs, but actually, it is the pigs that feed us.
 To respect pigs is to respect ourselves and to praise pigs is to praise ourselves.
 Let all of us, like pigs, be simple and happy to give and to make true a high-quality life!

Company Profile

Muyuan Foods Co., Ltd. was founded in 1992 and listed on the Shenzhen Stock Exchange(SZSE) in 2014. With over 30 years of innovative development, we have now developed an integrated pork industry chain covering feed processing, pig breeding, commercial pig farming as well as slaughter and processing. Innovation is the foundation of corporate development, and Muyuan adheres to a long-term philosophy of innovation. Seeking breakthroughs at the front line of the business, Muyuan continues to break new grounds, promoting intelligent pig farming and leading common development through technological innovation. By building a pig industry Internet platform, we achieve common progress among the upstream and downstream of our supply chain, continuously promoting the transformation and upgrading of the pork product industry.

By the end of 2023, Muyuan has operations spanning 223 counties/districts in 108 cities in 25 provincial administrative regions across China, with a total asset of 195.4 billion yuan. We have 308 wholly owned and holding subsidiaries and 131,300 employees. In 2023, 63.82 million heads of pigs were sold, and 13.26 million heads of pigs were slaughtered. Muyuan has been adhering to its vision of "better pork we serve, better life you enjoy" and has devoted itself to producing safe, tasty and wholesome pork products with high quality, so as to improve customers' life quality and promote the sustainable development of the industry.



Map of Muyuan's Livestock Farming and Slaughter Distribution Nationwide

Operational Performance

	Unit	2023	2022	2021
Pigs produced	10,000 heads	6,381.6	6,120.1	4,026.3
Pigs Slaughtered	10,000 heads	1,326.0	736.2	289.9
Feed production	10,000 tons	2,317	2,037	1,579
Operating revenue	100 million yuan	1,108.61	1,248.26	788.90
Total assets	100 million yuan	1,954.05	1,929.48	1,772.66
Employees	Person	131,276	140,403	137,520

ESG Milestones

- 1992 { The first pig farm in Muyuan, Neixiang Mashan Pig Farm, broke ground.
- 1993 { The Mashan pig farm in Neixiang went into operation on June 22, starting Muyuan's pig farming business with 22 piglets.
- 1998 { Muyuan started exploring the pig waste dry cleaning technique to cut water use.
- 1999 { Muyuan proposed that pig farming development must be synchronized with environmental protection.
- 2000 { Muyuan began to promote low-soybean meal diets.
- 2001 { Utilization of biogas started a new chapter of using green energy.
- 2003 { The low-soybean meal diet was adopted throughout the farms to reduce feed nutrient waste.
The "Ju'ai Education Assistance Project - Spring Rain Program" was launched to support the education in deprived areas.
- 2004 { The Company started exploring farming wastewater treatment solutions and developed the internal circulation (IC) anaerobic tanks.
- 2005 { Shared the "Muyuan Low-soybean meal Diets Environmental Protection Strategy" to drive the industry to reduce nutrient waste and protect the environment.
Conducted research on the Clean Development Mechanism (CDM) for emission reduction.
Launched the "Ju'ai Education Assistance Project - Golden Autumn Program" to support underprivileged students in realizing their dream of attending university.
- 2006 { Muyuan established the two-way backcross breeding system.
Muyuan started to explore standardized emission models and the process of utilizing manure for resource recycling through land application.
- 2007 { Farms started implementing clean production systems, and CDM project came into operation.
- 2008 { The circular economy pattern of "pig farming - biogas slurry - ecological agriculture" was explored.
Muyuan CDM project passed the UN inspection and became China's first registered CDM project applied in pig farms.
- 2009 { Muyuan purchased barley from Henan, Hubei, and other regions at premium prices to assist farmers during difficult times;
Muyuan advanced water conservation at the source by developing pig waterer bowl, designing slatted floor to realize no washing during pig farming.
- 2010 { Muyuan was awarded "National Nuclear Breeding Farm of Pigs" and "Standardization Demonstration Pig Farm" by the Ministry of Agriculture and Rural Affairs of the PRC.
- 2011 { Muyuan initiated and established the Henan Association for Poverty Alleviation and Development.
- 2012 { Muyuan explored the manure mechanical dry-cleaning process.
Muyuan developed the third-generation biogas slurry storage pool using HDPE impervious membrane technology to prevent groundwater pollution.

- 2013 { The 17th farm in Neixiang was certified by CHINA G.A.P.
- 2014 { Muyuan went public on the Shenzhen Stock Exchange (SZSE) with the stock code of 002714.
Muyuan adopted impervious membranes across all the farms, ensuring groundwater protection as a standard for generational sustainability.
- 2015 { Muyuan's environmental protection process was approved by the Ministry of Ecology and Environment, providing a model for environmental protection in large-scale pig farms.
- 2016 { The "5+" poverty elimination pattern assisted in lifting 390,000 people out of poverty from 140,000 families across 70 counties in 15 provinces.
- 2017 { Muyuan set five environmental protection goals of "zero emissions, no hidden dangers, no odors, smog reduction, and carbon emission reduction".
- 2018 { The pig houses heating without fossil fuels were applied and promoted throughout the Company.
The Company explored the improvement of saline-alkali land and planting of seawater rice.
- 2019 { The new pig house with air filtration was developed and applied to achieve fresh air filtration, independent ventilation and air deodorization and sterilization before discharge.
The Company held the International Symposium on African Swine Fever Prevention, providing an exchange platform for the industry to prevent and control African Swine Fever.
- 2020 { Muyuan Foods, together with Qin Yinglin and Qian Ying, donated 200 million yuan to support the nationwide COVID-19 pandemic prevention and control efforts.
- 2021 { Muyuan publicly released its low-soybean meal diet formulation to aid the industry in reducing soybean meal and promoting alternatives.
Slurry water purification and reuse technology was promoted to save water.
The Company donated 100 million yuan for flood relief and post-disaster reconstruction in Zhengzhou, Zhoukou, Xinxiang and other severely disaster-stricken areas.
- 2022 { The Company established the Sustainable Development Committee and issued the first *Green and Low-Carbon Action Report* in the industry.
- 2023 { Muyuan further reduced its soybean meal usage in feed to 5.7%, driving the industry's reduction of soybean meal to 13%.

Annual Awards and Recognitions

Awards	Issuing Authority
National Key Leading Enterprise in Agricultural Industrialization	Ministry of Agriculture and Rural Affairs, National Development and Reform Commission (NDRC), Ministry of Commerce, People's Bank of China, China Securities Regulatory Commission (CSRC), All China Federation of Supply and Marketing Cooperatives (ACFSMC)
2023 Sustainable Development Model Enterprise	Organizing Committee of China Economic Summit
Excellent Practice of 2022 Annual Report Performance Elucidation Presentation by Listed Companies	China Association for Public Companies (CAPCO)
ESG Best Practice Cases in Investor Relationship Management of Listed Companies 2023	China Association for Public Companies (CAPCO)
"Xinhua Credit Golden Orchid Cup" ESG Excellent Case Award	China Economic Information Service
Enterprises Listed in the ESG Blue Book	All-China Environment Federation (ACEF), Cailian Press
ESG Blue Book Typical Case Award	All-China Environment Federation (ACEF), Cailian Press
Excellent Enterprise Fulfilling Social Responsibility in Henan Province Food Industry in 2022	Henan Food Industry Association
Top 100 ESG Listed Companies of 2023	Organizing Committee of the Sanya Forum
ESG Leader in Central China Award	The 18th Yellow River Fortune Forum

2023 ESG Highlight Performance

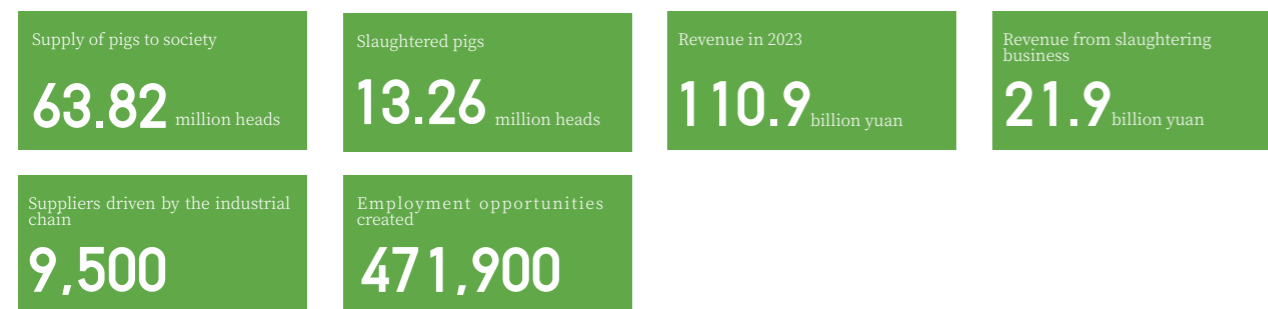
Comprehensive Implementation of the United Nations' 2030 Sustainable Development Goals (SDGs)

Muyuan actively embraces the ESG philosophy, upholding the core values of "Creating Value, Serving Society." With a focus on ESG principles, Muyuan diligently pursues the United Nations' 2030 Sustainable Development Goals (SDGs), leading to simultaneous enhancements in economic, ecological, and social outcomes.

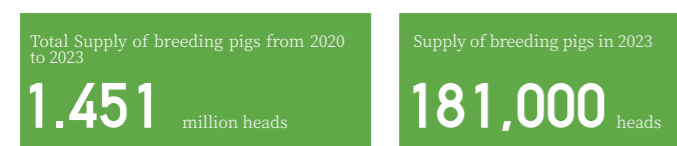
Economic Benefits



In 2023, Muyuan supplied 63.82 million pigs to society and slaughtered 13.26 million pigs, achieving a total operating income of 110.9 billion yuan. Among them, the slaughtering business generated operating income of 21.9 billion yuan. As of the end of 2023, Muyuan has driven 9,500 suppliers along the industrial chain, creating employment opportunities for 471,900 people.



Adhering to value breeding, we establish a unique two-way backcross breeding system to address the supply of pigs used for breeding. This enables us to provide high-quality breeding pigs to our customers, ensuring the production of premium pork to better meet consumer demands. From 2020 to 2023, we have cumulatively supplied 1.451 million breeding pigs to the industry, with 181,000 breeding pigs supplied in 2023 alone.



Adhering to the concept of innovative development, Muyuan has established an innovative research and development (R&D) system covering pigsty design, feed nutrition, disease prevention and control, environmental protection technology, and intelligent equipment. In 2023, the expenditure on R&D amounted to 1.658 billion yuan.

As of the end of 2023, Muyuan and its subsidiaries had cumulatively applied for 2,142 patents, with 1,626 patents authorized.

Among them, 181 patents were applied for and 185 patents were authorized in 2023 (including those applied for in previous years but authorized in 2023).

Actively rewarding shareholders and investors, Muyuan shares the fruits of development with investors. Since its listing, it has distributed dividends totaling 16.828 billion yuan (including preferred shares and share repurchases). In 2023, dividends of 4.003 billion yuan were distributed.

Strictly fulfilling tax obligations in accordance with regulations, Muyuan comprehensively promotes the invoice management system and the application of digital invoices, timely and accurately declares, and pays taxes in full and on time. It has been rated as an A-level taxpayer for multiple consecutive years. In 2023, Muyuan and its subsidiaries' tax payments exceeded 800 million yuan.

Strengthening the awareness of integrity and self-discipline, in 2023, the Company actively carried out various forms of education activities such as themed training on anti-corruption and integrity, relevant warning education bases visits, and anti-corruption month publicity and education conferences. This year, we organized a total of 95 sessions of anti-corruption and integrity training, and this covers all our employees.

Ecological Benefits



Continuously increasing investment in environmental protection, a total of 1.056 billion yuan was invested in 2023 for environmental process upgrading and rural management network construction to further enhance environmental governance effectiveness;

Continuously improving environmental management capabilities, Muyuan organized more than 550 environmental protection training sessions internally in 2023, certifying 7,860 individuals through skill assessments and such training covers all environmental management personnel. At the same time, we actively promoted environmental management system certification, continuously improving the Company's environmental work processes and standards;

We actively promote low-carbon activities. In 2023, the carbon emission intensity was 0.964 kgCO₂e/kg of pork, a 3.4% decrease compared to the previous year. This includes the value of reducing greenhouse gas emissions from the source through initiatives such as low-soybean meal diets, pig house heating without fossil fuels, and photovoltaic power generation technology. A total of 4.34 million tons of CO₂e greenhouse gas emissions were reduced in 2023;

In 2023, Muyuan increased its investment in research and development of low-soybean meal diets, allocating a total of 65.0645 million yuan, contributing to a saving of 31.20 kg of soybeans per pig. This contributed to a total reduction of nitrogen emissions by 80,700 tons and a reduction of greenhouse gas emissions by 146,600 tons of CO₂e;

All farms use pig house heating without fossil fuels to reduce heating energy consumption, achieving energy savings and emission reductions. In 2023, the energy saved by using pig house heating without fossil fuels was equivalent to a reduction in standard coal use of 333,500 tons and a reduction in greenhouse gas emissions of 867,000 tons of CO₂e;

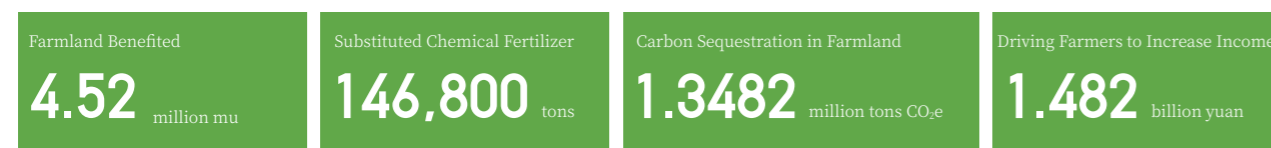
Muyuan fully utilizes roof resources, constructs distributed photovoltaic power generation facilities, and promotes photovoltaic power generation. As of the end of 2023, our installed capacity of photovoltaics was 207.9 MW, with an additional installed capacity of 117.4 MW. The cumulative electricity generation from January to December 2023 was 36.884 million kWh, supporting the transformation of energy structure in farms and slaughterhouses and reducing greenhouse gas emissions by 15,200 tons of CO₂e;

Muyuan actively explores comprehensive utilization methods of biogas and innovatively implements biogas purification projects. In 2023, Muyuan established 30 new biogas utilization projects, utilizing 34.45 million m³ of biogas, saving 22.39 million m³ of natural gas, and reducing greenhouse gas emissions by 1.8378 million tons of CO₂e.



All pig farms install sterilization and deodorization systems at the outlets to eliminate odor without disturbing the public, reducing greenhouse gas emissions by 125,200 tons CO₂e. Collaborating with the Department of Agriculture and Rural Affairs and Department of Ecology and Environment of Henan Province, Muyuan openly shares odor purification technology to promote industry development.

Muyuan further promotes integrated livestock-crop system to achieve ecological sustainable development, helping farmers reduce costs and increase income. In 2023, 100% of manure was resourcefully utilized, benefiting 4.52 million mu(301,333hm²) of farmland, replacing 146.8 thousand tons of chemical fertilizers, sequestering 1.3482 million tons of CO₂e in farmland, while driving farmers to increase income by 1.482 billion yuan.



Muyuan commits to "Sustainable Water Use" by implementing water-saving technologies such as reclaimed water reuse, enhancing water monitoring, and advancing fine water management to mitigate water risks, with freshwater usage at 2.25 m³ per head of pig.

Continuously exploring models and technological pathways for soil improvement and governance, in 2023, Muyuan improved 229,500 mu(15,300hm²) of saline-alkali soil land, converting barren land into arable fields, achieving a yield of 850 catties per mu, reducing soil salinity by 52.38%, and increasing organic matter by 6.67%. Additionally, desert management covered 88,200 mu(5,880hm²), supporting ecological restoration and biodiversity conservation.

Social Benefits



Muyuan diligently fulfills its product responsibilities by producing safe and healthy pork products for the public. In 2023, Muyuan supplied high-quality pork totaling 5.34 million tons to society, meeting the pork demand of over 100 million people.

Continuously optimizing food safety and quality management systems, Muyuan strengthens upstream and downstream certifications and inspections to ensure the safety of pork supply. Muyuan has obtained multiple certifications including FSSC22000, ChinaG.A.P., and ISO9001 in feed, breeding, and slaughtering, with a customer and government inspection pass rate of 100% in 2023.

Actively exploring practices to reduce antibiotics, Muyuan systematically promotes antibiotic-free meat, feed, and breeding. In 2023, Muyuan used probiotics instead of antibiotics in 272 farms, reducing antibiotic usage.

Respecting equal employment opportunities for employees, as of the end of 2023, Muyuan employed a total of 131,276 staff, with women accounting for 21.5%, and women holding 26% of senior positions (including department heads).

Valuing employee development, in 2023, Muyuan invested 700 million yuan in vocational training, with an average training time of 148 hours per employee, continuously enhancing labor skills and job competitiveness.

Prioritizing employee occupational health, in 2023, Muyuan's total investment in safety production amounted to 198 million yuan, providing employees with a safe working environment, and safeguarding them from occupational hazards.

Supporting local employment to promote local economic growth, with a local employment rate of 76% in 2023.

Persistently expanding local grain procurement (including corn, wheat, and rice) to stimulate community economic development. By 2023, Muyuan had purchased a total of 19.8768 million tons of local grains, a 4.87% increase from the previous year. Local grain purchases accounted for 89% of total procurement in 2023.

Committed to building a compliant, green, and responsible procurement system, Muyuan integrates ESG concepts into suppliers management systems. In 2023, Muyuan sourced 52.56% of soy products from suppliers with sustainable certifications, with plans to increase this to over 70% by 2025.



Muyuan continued to assist farmers in various forms such as plowing, planting, pest control, machinery coordination, weeding, and straw management to ensure effective crop management and increase farmers' yields. In 2023, Muyuan invested a total of 31.0522 million yuan in agricultural assistance services.

Muyuan continued the implementation of public welfare projects, including road construction, street lighting, square renovation, afforestation, and water projects. By the end of 2023, the Company had donated a total of 104.2622 million yuan in public welfare projects, benefiting 1,609 villages and creating beautiful, safe, and convenient living environments for community residents, significantly enhancing their quality of life.

Muyuan continued to carry out the Ju'ai Education Assistance Projects, in 2023, the "Ju'ai Education Assistance Project - Golden Autumn Program" provided rewards totaling 64.39 million yuan to 21,600 college students, while the "Ju'ai Education Assistance Project - Spring Seedling Program" distributed 77,933 school bags to elementary and middle school students, continuously spreading love and responsibility to society.

Sustainable Corporate Governance

Corporate Governance

ESG Management

Risk Management

Business Ethics

Innovative Development

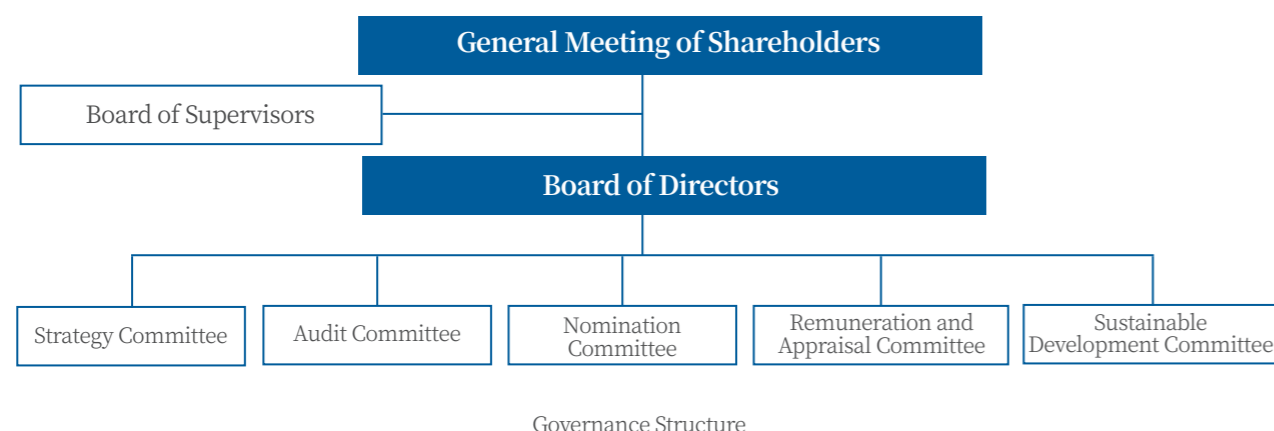
SDGs referred to in this chapter



Corporate Governance

Corporate Governance Structure

Muyuan strictly complies with the requirements of relevant laws, regulations, and normative documents such as *the Company Law of the People's Republic of China*, *the Securities Law of the People's Republic of China*, *the Rules Governing the Listing of Shares on Shenzhen Stock Exchange*, and *the Business Guidelines of Shenzhen Stock Exchange for Self-discipline Regulation of Listed Companies*. We continuously improve our corporate governance structure, establish a modern corporate governance framework and internal control system, to promote the high-quality and sustainable development of the Company.



Board Composition

Muyuan has been improving its corporate governance system and operation mechanism in strict accordance with the requirements of relevant laws, regulations, and normative documents, such as *the Company Law of the People's Republic of China*, *the Securities Law of the People's Republic of China*, *the Code of Corporate Governance for Listed Companies*, *the Rules Governing the Listing of Shares on Shenzhen Stock Exchange*, and *the Business Guidelines of Shenzhen Stock Exchange for Self-discipline Regulation of Listed Companies*. When selecting board members, we consider various factors, including but not limited to their professional abilities, qualifications, professional backgrounds, independence, and competence.

As of now, the Company's Board of Directors consists of a total of seven directors, including three independent directors, accounting for more than one-third of all directors. The composition of the Board of Directors complies with relevant laws, regulations, and the *Articles of Association*. Additionally, the Board of Directors has a chairman and a vice-chairman who are responsible for formulating and supervising the company's strategies and ensuring their execution. They are also accountable to the shareholders' meeting. In 2023, Muyuan held a total of 8 board meetings.

Board Diversity

As of now, there is one female director on the board, accounting for 14% of the total members. The Board of Directors of the Company demonstrates diversity in terms of age, gender, educational background, nationality, etc. It comprises experts from various fields such as farming, management, law, economics, finance and so on, ensuring the efficient operation of the board.

Mr. Qin Yinglin, the chairman of the Company, has been dedicated to the primary business of pig farming since the establishment of the Company. He emphasizes innovative research and development and is committed to environmental management. In recent years, he has continuously promoted the transformation and upgrading of the pig farming industry. He shares his experience in the industry as he possesses extensive experience in sustainable development.

Board Independence

The Company strictly follows the election procedures and qualifications for independent directors as required by relevant laws, regulations, normative documents, and company regulations. This ensures that independent directors possess the necessary independence to fulfill their duties impartially in various aspects, including participating in board decision-making, overseeing major matters, and enhancing business development, without being influenced by other conditions.

As of now, there are three independent directors on the board, accounting for 43% of the total members, which meets the relevant regulations on the proportion of independent directors and ensures that the Board of Directors can make effective and independent judgments and scientific decisions when deliberating and engaging in major matters.

Muyuan has formulated *the System of Independent Director* and continuously revised it in accordance with the latest regulations. It requires independent directors to fulfill their duties in accordance with relevant regulations and system requirements.

Special Committees

As of now, Muyuan's board of directors has established 5 special committees: the Strategy Committee, Audit Committee, Nomination Committee, Remuneration and Appraisal Committee, and Sustainable Development Committee. These committees are composed of directors and provide scientific and professional advice to the board on relevant decision-making matters. They also supervise Muyuan's risk management, internal controls, and other aspects.

Among them, the majority of independent directors serve as conveners in the Audit Committee, Nomination Committee, and Remuneration and Appraisal Committee, which meets the requirements of relevant laws and regulations such as *the Guidelines for Independent Directors of Listed Companies*.

2023 Performance of Board of Directors' Special Committees

Committee name	The independence of the committees (percentage of independent directors)	Number of meetings convened in 2023(occurrences)	Attendance rate
Strategy Committee	33%	1	100%
Audit Committee	67%	6	100%
Nomination Committee	67%	2	100%
Remuneration and Appraisal Committee	67%	3	100%
Sustainable Development Committee	67%	1	100%

Supervisory Board Composition

As of now, Muyuan's supervisory board has a total of three supervisors, including one chairman of the supervisory board, one supervisor, and one employee representative supervisor. Among them, there is one female supervisor, accounting for 33% of the total.

Effectiveness of the Supervisory Board

The convening, holding procedures, and notification time of Muyuan's supervisory board meetings all comply with relevant provisions such as the *Articles of Association*. In the daily work, the Company's supervisors conscientiously fulfill their duties, effectively supervise the legality and compliance of the company's finances as well as the performance of responsibilities by directors and senior management personnel. They attend shareholder meetings and are present at board meetings as non-voting members, effectively supervise significant corporate matters, financial conditions, profit distribution, internal controls, and express their review opinions. They actively safeguard the legitimate rights and interests of the Company and all shareholders. In 2023, a total of seven supervisory board meetings were held by the Company.

Protect Investors' Rights and Interests

Protect the rights and interests of shareholders

Muyuan strictly adheres to relevant laws and regulations, clearly defines the rights and responsibilities of the shareholders' meeting and provides online voting channels. It treats all shareholders equally, ensuring that all shareholders, especially small and medium-sized shareholders, can fully exercise their rights. In 2023, Muyuan held a total of two shareholder representative meetings. The convening, holding, deliberation, and voting procedures were all legal and compliant. Over 500 small and medium-sized investors participated in the meetings on-site and online. All proposals were approved through voting.



Open Communication Channels

Muyuan consistently maintains open channels of communication with investors by establishing a transparent and accessible platform for dialogue. This approach enables ongoing enhancement and deepening of interactions with investors, assisting small and medium-sized investors and investment institutions in gaining a more thorough understanding of Muyuan. Specific measures are as follows:

Muyuan sets up official contact methods for investors, such as phone numbers, fax numbers, and email addresses, with dedicated personnel responsible for handling inquiries. This ensures effective communication during working hours and provides investors with prompt feedback and responses through efficient means.

Muyuan strengthens the construction and operation of online communication channels for investors, including setting up a dedicated securities affairs section on its official website. We utilize the Shenzhen Stock Exchange Easy Interaction (SSEEI) platform to collect and respond to investor inquiries, complaints, and suggestions. Muyuan also establishes an investor relations WeChat account platform to promptly release and update relevant information. Additionally, we organize investor open day events to deepen communication and interaction with investors.

Under the guidance of regulatory documents such as the *Opinions on Further Improving Quality of Listed Companies* and the *Guidelines for Investor Relations Management of Listed Companies*, Muyuan held an online performance briefing on May 12, 2023, for the fiscal year 2022. During the event, we addressed and clarified investors' concerns, with individual investors accounting for 96.84% of the questions raised.



Open Days Activities

Media Open Day: From October 30 to 31, 2023, Muyuan organized a "Media Open Day" event. Representatives from 32 media outlets, including Xinhua News Agency, People's Daily Online, Xinhuanet, and Securities Times, visited Muyuan to observe our industrial chain and gain a deeper understanding of Muyuan's development. Our senior management team shared their insights on industry development and corporate operations, and we also provided detailed answers to questions of public concern. Through media channels, Muyuan was able to convey company information to the public in a more comprehensive, accurate, and timely manner, thus contributing to our further development.



Exchange Session



Visit the Intelligent Technology Exhibition Hall

Investor Open Day: On October 30 and 31, Muyuan hosted an "Investor Open Day" event, during which 232 investors visited Muyuan to gain a comprehensive and in-depth understanding of the company through open communication. The senior management team addressed the questions and concerns raised by the investors. The various perspectives, inquiries, and suggestions put forth by the attendees also prompted Muyuan to reflect on its own development and growth.



Exchange Session



Visit the Meat Industry Complex

Environmental Protection Open Day: Muyuan successfully held 324 "Environmental Protection Open Day" events in 24 provincial-level administrative regions across the country, inviting a total of 15,758 people, including local villagers and government representatives at various levels, to visit and exchange ideas. This allowed everyone to gain a close understanding of Muyuan's proactive efforts in resource utilization and sustainable agricultural development. At the same time, Muyuan invited farmers to supervise the operation of facilities, publicized reporting channels, improved our own operational standards, and built harmonious relationships between villages and enterprises.



Open Day Events in Ningling Muyuan Farm No. 9



Open Day Activities in Zone 4, Sixian Muyuan Farm No. 2

2023 Investor Activity Data

Type	Frequency
Answer the Investor Hotline	1,500
Reply to SSEI Q&A	490
Release Investor Research Summary	19
Press Conference	9
Strategy Meeting	5

Standardized Information Disclosure

Muyuan has strictly followed the requirements of relevant laws, regulations, and the Company's *Articles of Association* to establish a standardized system for the public disclosure of information. This system ensures that the disclosed information is true, accurate, complete, timely, and fair. We have designated "Securities Times", "China Securities Journal", "Shanghai Securities News," and "Securities Daily" as media outlets for information disclosure, and the CNINFO website as the platform for company information disclosure.

In 2023, Muyuan disclosed a total of 226 announcements for the listed company through the designated information disclosure website. All of the announcement content was true, accurate, complete, and timely, fully conveying Muyuan's relevant information to investors. At the same time, we proactively disclosed information on environmental protection, low-carbon innovation, social welfare, and corporate governance by publishing the *Muyuan: 2022 Annual Environmental, Social, and Governance (ESG) Report* and the *Muyuan: 2022 Green and Low-Carbon Action Report*. This demonstrates our sustainable development practices and continuously enhances the effectiveness and comprehensiveness of our information disclosure.

Share the Fruits of Development

Muyuan continues to focus on its core business of pig farming, actively communicating its value to stakeholders, and sharing the fruits of its development with investors under the premise of ensuring sustainable and high-quality growth. Since the listing, Muyuan has strictly followed the profit distribution policy established in the *Articles of Association* to carry out sustainable cash dividends. Since listing, Muyuan has distributed a total of 16.828 billion yuan in dividends (including preferred stock and share buybacks). Of this amount, 4.003 billion yuan was paid out in dividends for the year 2023.

We will continue to effectively manage the dynamic balance between performance growth and shareholder returns, adhering to a "long-term, stable, and sustainable" multi-channel mechanism for shareholder rewards, and sharing the fruits of industry and company development with a broad base of shareholders.

Dividend Distribution Since IPO

16.828 Billion yuan

Dividend Distribution in 2023

4.003 Billion yuan

Stabilize Investor Confidence

To promote the long-term sustainable development, we actively carry out share buybacks that can be used for employee stock ownership plans and equity incentive plans. We also encourage senior management and employees to increase their holdings in the Company's stock, thereby stabilizing investor confidence and enhancing the overall value of the Company.

Our fourth board of directors' fifteenth meeting, held on December 12, 2022, reviewed and approved the *Proposal on the Repurchase of the Company's Shares*. The plan is to repurchase a total amount no less than 1 billion RMB and not more than 2 billion RMB (inclusive of the amounts mentioned), to be used for the employee stock ownership plan or the equity incentive plan. As of the date of this report's disclosure, the aforementioned share repurchase plan has been fully implemented. For more details, please refer to our relevant announcements on the China Securities Regulatory Commission's website (www.cninfo.com.cn).

Based on confidence in the Company's future development and recognition of its long-term investment value, the controlling shareholder and Mr. Qin Muyuan (the actual controller's son), planned to increase their holdings in the Company's shares with a total amount of no less than 500 million RMB (inclusive) and no more than 1 billion RMB (inclusive). Additionally, certain directors, supervisors, senior management personnel, and core management, technical, and business staff of the Company planned to increase their holdings in the Company's shares with a total amount of no less than 1 billion RMB (inclusive) and no more than 1.2 billion RMB (inclusive). As of the date of this report's disclosure, these certain directors, supervisors, senior management personnel, core staff, and Mr. Qin Muyuan (the controlling shareholder's son), have all completed the aforementioned plan to increase their holdings.

I. Completion Status of the Shareholding Increase Plan for Certain Directors, Supervisors, and Core Personnel of the Company

As of January 19, 2024, the shareholding increase plan for some directors, supervisors, and core personnel of the Company has been completed. The specific increase details are as follows:

Increasing Entity	Increase Method	Number of Shares Increased (10,000 shares)	Amount Increased (10,000 RMB)	Proportion of Total Shares (%)
Li Fuqiang	Centralized Bidding	2.54	99.94	0.0005%
Other directors, supervisors, senior management personnel, core technical and business personnel entrusted plan	Centralized Bidding	3,041.39	11,980,295	0.5565%
Total		3,043.93	11,990,288	0.5570%

Notes: 1. Before this increase, Mr. Li Fuqiang held 7,494,858 shares of the Company, accounting for 0.1371% of the total share capital; after the increase, he holds 7,520,258 shares, accounting for 0.1376% of the total share capital. 2. For other directors, supervisors, senior management personnel, and core technical and business personnel under the trust plan, no company shares were held before this increase. 3. Due to rounding up, there may be slight discrepancies in the above figures.

II. Implementation Results of the Shareholding Increase Plan

As of the disclosure date of this announcement, the Shareholding Increase Plan for the Company's controlling shareholder, Muyuan Foods, and Mr. Qin Muyuan, the son of the actual controller, has been completed. The specific details of the increase are as follows:

Increasing Entity	Increase Method	Number of Shares Increased (10,000 shares)	Amount Increased (10,000 RMB)	Proportion of Total Shares (%)
Muyuan Foods	Centralized Bidding	1,383.67	49,506.09	0.2532%
Qin Muyuan	Centralized Bidding	906.41	35,000.69	0.1658%
Total		2,290.09	84,506.78	0.4190%

Notes: 1. Muyuan Foods increased its shareholding by 272,600 shares through centralized bidding and by 13,564,147 shares through the trust plan, totaling 13,836,747 shares. 2. Before this increase, Muyuan Foods held 834,925,406 shares of the Company, accounting for 15.2767% of the total share capital. Mr. Qin Muyuan held 2,034,784 shares of the Company, accounting for 0.0372% of the total share capital.

ESG Management

ESG principles are a crucial guide for companies to achieve sustainable development. Muyuan is committed to building a sustainable corporate governance framework, integrating ESG concepts into the Company's management and operations, and elevating sustainable development to the level of strategic decision-making.

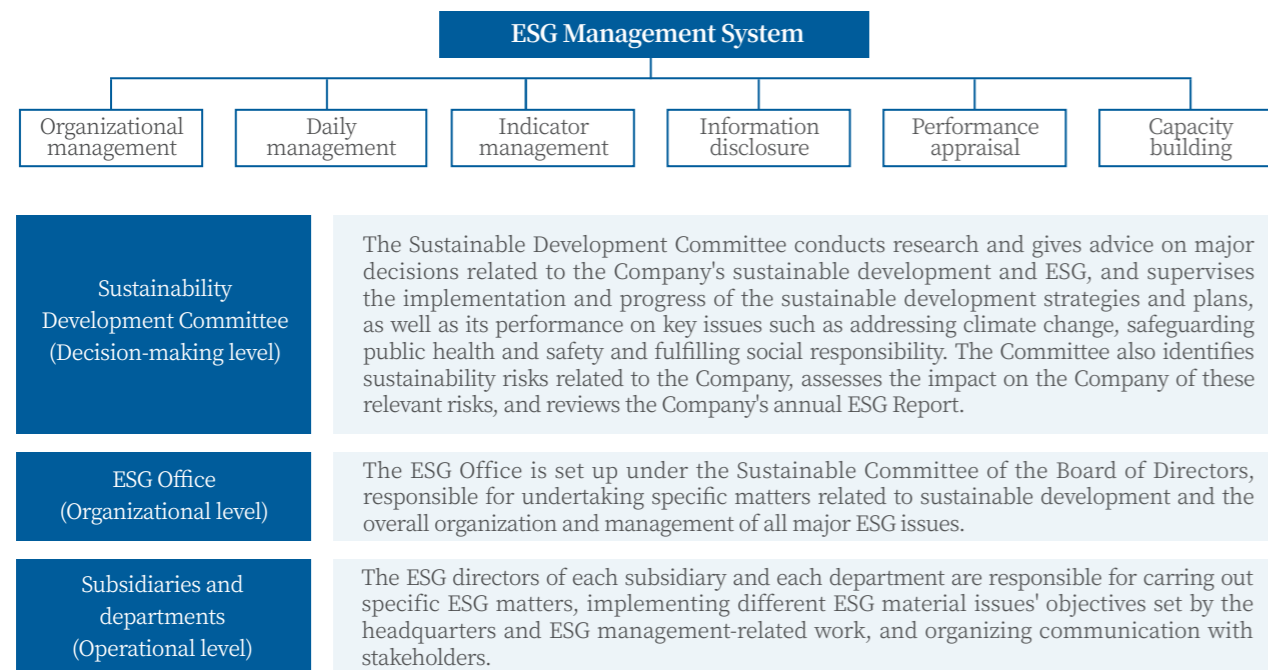
ESG Management Structure

To ensure the effective implementation of ESG initiatives, Muyuan established a three-tier ESG management structure consisting of "decision-making, organizational, and operational levels". Under this framework, a Sustainable Development Committee has been set up, chaired by the Company's Chairman, Qin Yinglin, who is responsible for overseeing the implementation and progress of sustainable development strategies. The Sustainable Development Committee also plays a role in assessing and making decisions on significant events related to sustainability.

The Sustainable Development Committee of the Boards of Directors has established an office, whose responsibilities include studying the resolutions of the Board's Sustainable Development Committee, developing corresponding execution plans, and coordinating specific ESG-related matters proposed by the committee. It also organizes and guides the operational level in

carrying out their work.

Specific tasks are advanced and executed by the relevant departments' sustainability working groups to ensure that key ESG issues are effectively addressed, the sustainable development management system operates effectively, and the Company's ESG performance is steadily enhanced. Heads of each subsidiary and department are responsible for implementing the Company's ESG-related resolutions based on their actual conditions respectively, ensuring that the Muyuan's ESG philosophy is thoroughly implemented and executed throughout the organization.



Strategy of ESG Management

Muyuan's Social Responsibility Strategy

Muyuan actively responds to the United Nations' Sustainable Development Goals (SDGs), focusing on the pork food industry and taking into account the demands of all stakeholders. Muyuan adopts the "Five Commitments" as the core support of its sustainable development strategy, making comprehensive efforts in five areas: food safety, green and low-carbon development, win-win cooperation, employee care, and public welfare.

	Five Commitments	Sustainable Development Goals
Food safety	Muyuan leads the development in the industry by sticking to scientific and technological innovation, continuously engages in antibiotic-free farming, and produces safe, healthy, nutritious and delicious food for the society.	
Green and low-carbon development	Muyuan has set a five-tier environmental goal of "zero emissions, no hidden hazards, no odor, smog reduction, and carbon emission cuts," advocating for a circular economy and clean production to protect the ecosystem.	
Win-win cooperation	Adhering to "fairness, equity, openness and transparency", Muyuan is committed to building a sustainable supply chain to achieve efficient and mutually beneficial outcomes.	
Employee care	Muyuan emphasizes benefiting employees and helping them to develop and realize their life values.	
Public welfare	Sticking to its values, Muyuan aims to build a sharing platform to make continuous progress and stay focused for long-term growth.	

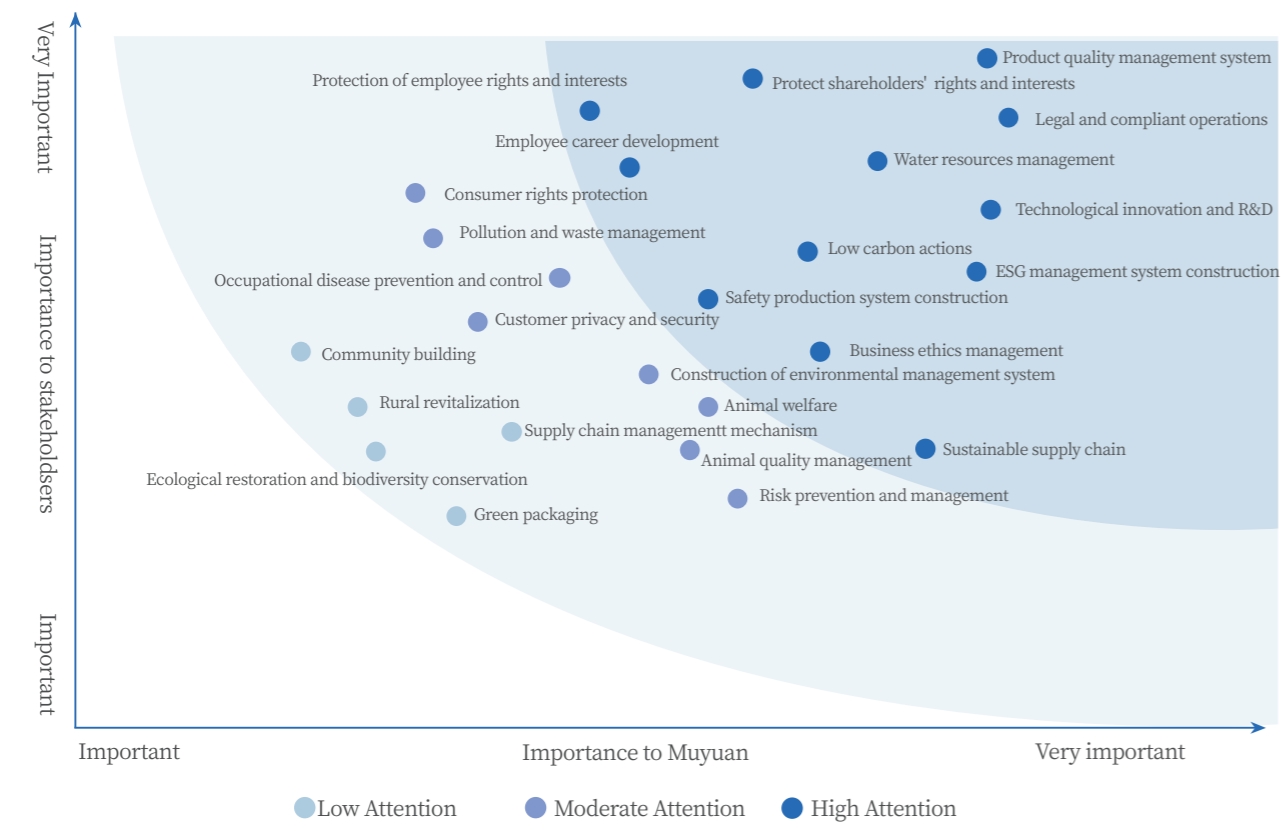
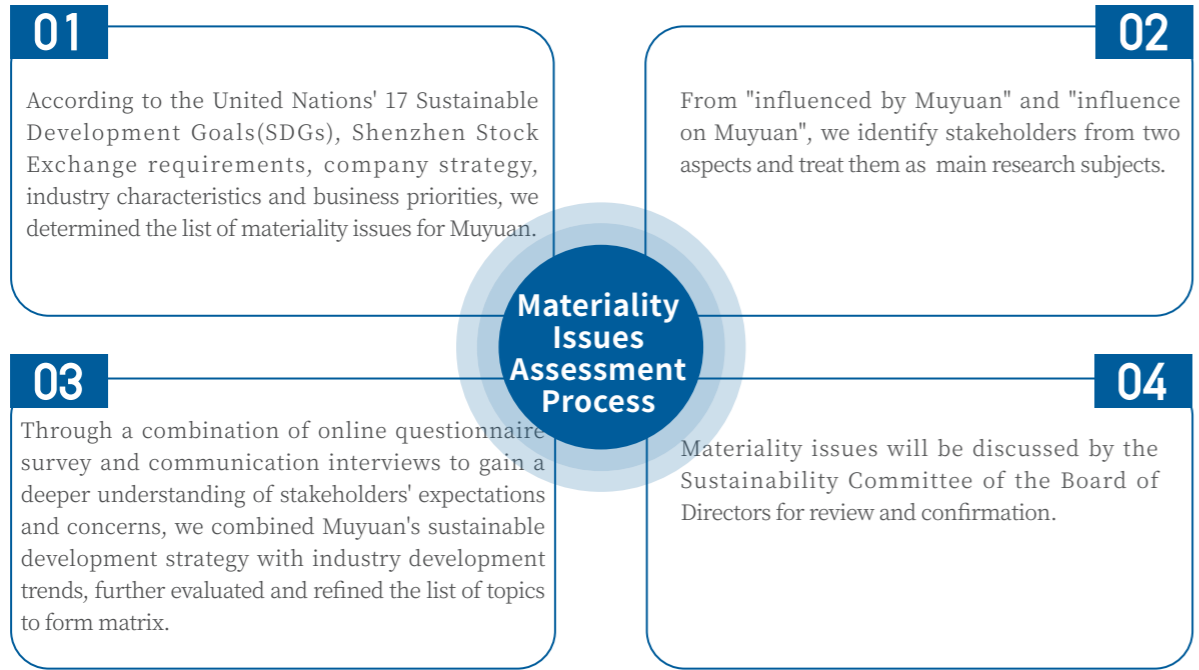
Stakeholder Identification and Communication

Muyuan places great emphasis on aligning common goals with stakeholders, including consumers, shareholders, investors, government and regulatory bodies, suppliers, employees, communities, and the public. The Company has established a regular and multi-channel communication mechanism with these parties, actively addressing their concerns and demands. Muyuan comprehensively identifies risks and opportunities for sustainable development and continuously improves its ESG management and practices.

Stakeholders	Main issues	Communication channels
Consumers	<ul style="list-style-type: none"> ·Food safety and quality ·Customer privacy and security ·Consumer rights protection ·Responsible marketing 	<ul style="list-style-type: none"> ·Follow-up calls and market survey ·Official website service center ·Corporate WeChat official account and e-mail ·Report hotline
Shareholders and investors	<ul style="list-style-type: none"> ·Lawful and compliant operation; safety production ·Corporate governance and transparency ·Risk prevention and management ·Technological innovation and development ·Business ethics management ·Steady growth in investment returns 	<ul style="list-style-type: none"> ·General meeting of shareholders and investor surveys ·Performance explanation meetings and Information disclosure ·Corporate annual report, announcement and roadshow ·Securities affairs special page ·SSEI platform ·WeChat official account
Government and regulatory authorities	<ul style="list-style-type: none"> ·Lawful and compliant operation ·Corporate governance and transparency ·Rural revitalization assistance ·Biodiversity, land use and carbon reduction ·Whole-life cycle pollution management and lawful tax compliance ·Contribute to local economic development 	<ul style="list-style-type: none"> ·On-site investigations ·Work seminars ·Daily communication and debriefing ·Project approval and supervision; regulatory assessment ·Voluntary tax payment and specialized conference
Suppliers	<ul style="list-style-type: none"> ·Sustainable supply chain ·Business ethics management ·Information confidentiality 	<ul style="list-style-type: none"> ·Honesty & integrity meeting; bidding meeting ·Fairs and daily communication ·Partner training ·Onsite partner auditing ·Procurement platform
Employees	<ul style="list-style-type: none"> ·Protection of employees' rights and interests ·Safety production ·Occupational disease prevention and control 	<ul style="list-style-type: none"> ·Training and labor union activities ·Workers' congress and cultural building ·Online communication platform ·Year-end review and planning meeting ·Report hotline
Community and the public	<ul style="list-style-type: none"> ·Co-construction of community and green packaging ·Biodiversity and land utilization ·Water resources management and employment promotion ·Stimulate local economic development ·Rural revitalization assistance 	<ul style="list-style-type: none"> ·Field visits and surveys ·Offer job opportunities and community activities ·Employee volunteer activities and public welfare activities ·Support for social welfare initiatives and agricultural technical services

Materiality Assessment

To effectively understand and respond to stakeholders' concerns about MUYUAN, a questionnaire was conducted to screen the issues of significance to stakeholders, and these issues were analyzed to determine the priority of material issues by integrating MUYUAN stakeholders' concerns about the sustainable development of MUYUAN shares. A materiality issue matrix for MUYUAN's 2023 has been summarized, which helps the Company identify and manage issues related to risks and opportunities, in order to effectively meet stakeholders' expectations.

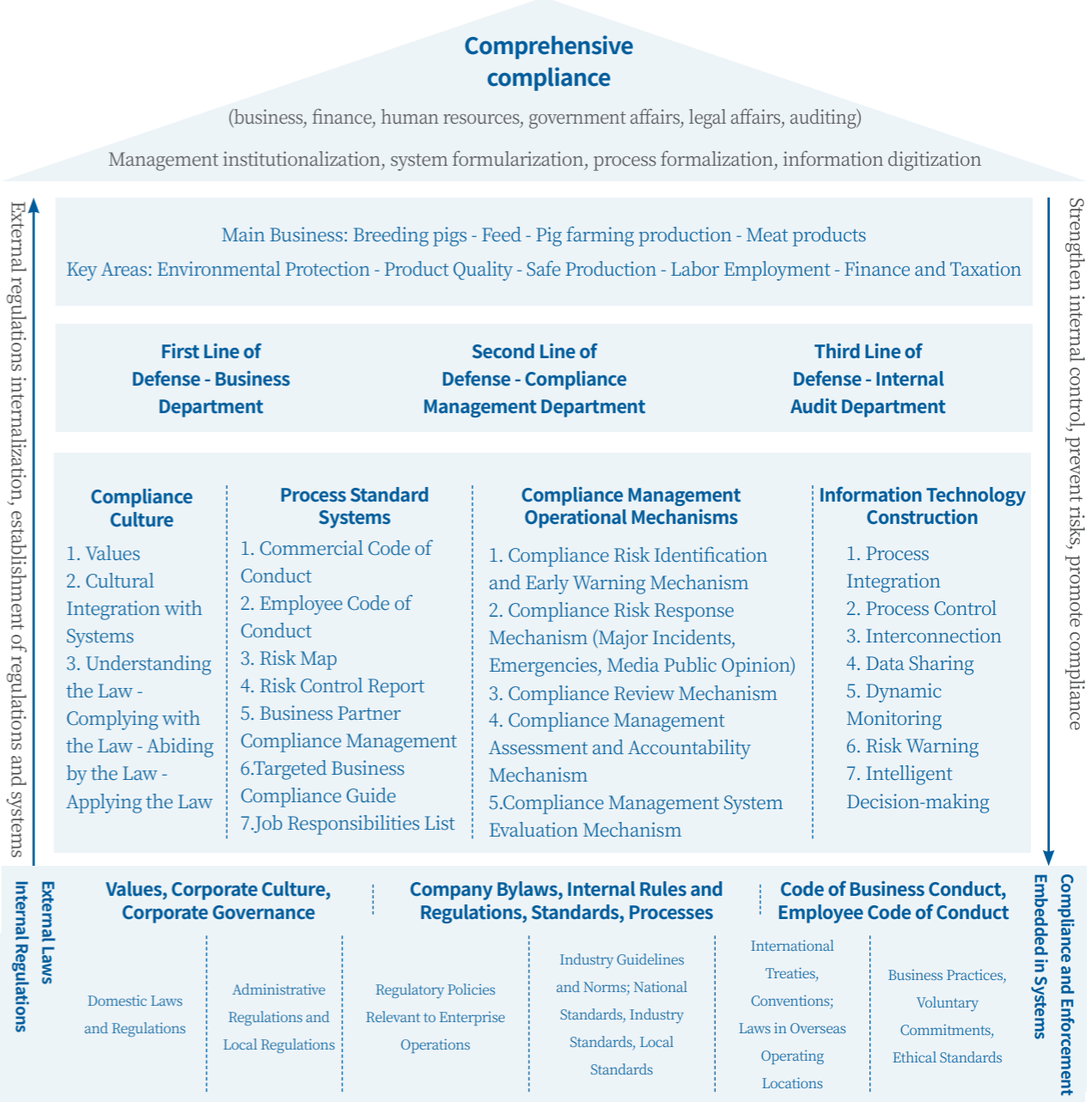


Risk Management

MUYUAN attaches great importance to risk management, establishing and refining a risk management mechanism. It has constructed three lines of defense covering departments of business operation, compliance management, and compliance audit for risk management. This involves three stages: pre-risk prevention, in-process control, and post-emergency response. This full-process control ensures the rapid identification and early warning of business risks, with legal intervention in a timely manner. Risk control strategies are classified and formulated, contingency plans are improved, and the internal control system is fully supervised and inspected by the audit department, achieving full-process control and tracking of risks, ensuring there are no hidden dangers.

Build Three Lines of Defense to Manage Risks

MUYUAN attaches great importance to the construction of systems for risk management and internal control. It has made policies and procedures for risk management and built the three lines of defense to manage risks, which involves departments of business operation, compliance management, and compliance audit, to see responsibilities are fulfilled by business units while business and production are focused on and improved.



<p>1st line of defense: risk identification and early warning</p>	<p>The business operation department serve as the "first line of defense" in Muyuan's risk management. Each department is responsible for identifying, assessing, and handling compliance risks within its jurisdiction and undergoes training provided by the compliance management department. Different management measures are developed for known risks, unknown risks, and uncertain risks to address them accordingly.</p>	<p>Known risks: Further improve process standards and system construction, achieve management at the smallest granularity, and eliminate hidden risks.</p> <p>Unknown risks: Insightfully assess laws, regulations, industry policies, and external changes, delve into internal business, and transform unknown risks into known risks.</p> <p>Uncertain risks: Combine current business status, existing regulations, and regulatory policies, comprehensively assess and prevent risks, avoiding escalation or neglect. Continuously improve crisis response mechanisms and handle them promptly and appropriately.</p>
<p>2nd line of defense: a sound risk management mechanism</p>	<p>The Legal Department serves as the "second line of defense" in Muyuan's risk management. It oversees and coordinates the implementation of compliance work, and is responsible for building the compliance management system, internalizing external regulations, coordinating and organizing various departments to carry out daily compliance work, strengthening compliance system construction, compliance review and assessment, and ensuring the effective operation of the compliance system.</p>	<p>The comprehensive view of risks across various business sectors is analyzed, focusing on key risk control issues such as qualifications and licenses, land use, safety production, ecological environment protection, feed and veterinary drugs, and accident management. Special governance initiatives are implemented to address these issues. This marks the initial construction of a risk prevention and control system guided by risk management, based on institutional development, supported by internal controls, driven by compliance management, and safeguarded by legal services.</p>
<p>3rd line of defense: a comprehensive audit and supervision system</p>	<p>The Audit Department serves as the "third line of defense" in Muyuan's risk management, establishing a comprehensive, authoritative, and efficient audit supervision system. It implements an audit supervision closed-loop consisting of "risk assessment - audit planning - audit supervision - issue investigation - internal control improvement - re-audit", constructing an open and collaborative audit supervision ecosystem to maximize the effectiveness of supervision.</p>	<p>We establish a misconduct reporting mechanism with total involvement and ample rewards for whistleblowers, fostering a work pattern of all-staff supervision; constructing an anti-corruption system, combating malfeasance, promoting reform through cases, and providing cautionary education to build a corruption-free system of "dare not, cannot, and do not want to corrupt". We enhance our internal control system guided by risks, comprehensively supervising the operation of key business areas, promptly identifying anomalies, conducting audits, and forming a supervision closed-loop mechanism constituting "audit supervision - issue identification - issue rectification - notification of accountability - internal control improvement".</p>

Transparent Tax Management

Muyuan strictly fulfills its tax obligations in accordance with tax laws and regulations, and has formulated *the Tax Declaration Management policy*. It has established a three-level approval and review mechanism and Muyuan has regularly submitted tax-related information. By promoting the invoice management system and digital invoice applications, and adapting to "Natural System Services", the Company has established a comprehensive, efficient, and intelligent tax management system, ensuring timely and accurate declaration and payment of taxes in full accordance with the law. For consecutive years, Muyuan has been rated as an A-level taxpayer. In 2023, Muyuan and its subsidiaries paid taxes exceeding 800 million yuan. Additionally, Muyuan-owned group of companies is included in the management of the National Thousand Enterprise Groups, strictly reporting the Company's financial data in accordance with relevant requirements, further enhancing tax transparency. No tax-related disputes occurred during this fiscal year.

Strengthen Risk Management Awareness

The Company's risk management training follows the principles of full coverage, targeted focus, and normalization to ensure that all employees deeply understand the Company's risk management objectives. The goal is to ensure that all employees consciously adhere to risk management requirements, strengthen risk management thinking, and enhance risk management awareness. At the same time, our employees acquire necessary skills and knowledge to fulfill their risk management responsibilities, and carry out their job duties in a capacity that is compatible with the Muyuan's culture, and jointly build the company's compliance values and achieve the development vision.

In 2023, the Company actively conducted multiple risk management training sessions through a combination of online and offline methods. These training sessions covered areas prone to frequent violations such as land use, environmental protection, safety production, labor force, integrity and honesty, intellectual property rights, and other areas. This initiative aimed to continuously enhance the risk management capabilities of all employees.

Business Ethics

Construct an Anti-Corruption System

The Company is continuously advancing the construction of an anti-corruption system based on the principles of "dare not corrupt, cannot corrupt, do not want to corrupt". It maintains a zero-tolerance approach towards corruption, swiftly investigating and rigorously punishing corrupt practices to reinforce deterrence against corruption. The formulation and implement of policies such as *the Integrity and Self-discipline Management System* and *the Penalty Measures for Integrity and Self-discipline Incidents* contribute to strengthening deterrence measures. The Company promotes the digital platforms to enhance safeguards against corruption while enhancing awareness against corrupt practices through cultural guidance, institutional promotion, and cautionary education. The company integrates three key areas including investigation and punishment of corruption, improvement of mechanism systems, and promotion of integrity education, fostering an integrated approach to punishment, prevention, and governance. This contributes to the implementation of an integrity and honesty culture, creating a new anti-corruption momentum for the Company, and building a business environment where everyone is self-disciplined and integrity is upheld.

Implement Big Data Anti-corruption

Muyuan places great importance on anti-corruption governance in all aspects of the Company's operations. Through building an integrated digital platform increasing transparency and comprehensive supervision, and through applying intelligent technology and methods, the deterrence against corruption will be increased. Big data monitoring indicators are integrated into sales, procurement platforms, etc. By utilizing information technology to implant cases into business digital platforms, the Company continuously reinforces the educational function of anti-corruption ideology. This forms a safeguard mechanism of "dare not corrupt, cannot corrupt, do not want to corrupt".

Muyuan has currently achieved preliminary early warning systems for areas with high occurrences of corruption and high-risk segments. By monitoring data in real-time during stages such as livestock marketing and sales, we have created a re-conciliatory closed loop to ensure the safety and accuracy of biological assets. Also, we optimize our processes and promote precise management by using digital technology, successfully closing corruption loopholes.

By deeply mining big data and implementing real-time online supervision, we enhance our ability to predict, alert, and investigate corrupt behavior. This strengthens our oversight and constraints on corrupt activities, thereby reducing opportunities for corrupt individuals to break the law or violate regulations.

Establish a Complaint Reporting Mechanism

Muyuan continues to improve its integrity and honesty system by establishing *the Integrity and Honesty Reporting Management System*. We implement a system of reporting and supervision by all staff members, providing multiple channels such as telephone, email, WeChat official account, company website, letters, and visits. We create a reporting group covering all staff members and opens channels for reporting violations of integrity and honesty, with reported information reaching relevant parties in real time. We also specify a reporting reward program to encourage both internal and external personnel to supervise and report on behaviors related to company management systems and major operational issues. In 2023, Muyuan investigated a total of 126 cases of integrity and honesty incidents (including 27 criminal cases), involving a total amount of 10.192 million yuan. We disciplined 186 internal corrupt individuals directly (including transferring 35 individuals to public security agencies) and blacklisted 86 external business partners (including transferring 18 individuals to public security agencies).

Muyuan has established a whistleblower protection mechanism, ensuring strict confidentiality of the whistleblower's personal information and provided materials. If the auditing personnel handling the report have a close familial relationship or vested interests with the reported individual, they must recuse themselves. Publicity and rewards for whistleblowers will not disclose their names and their company names without their consent.



Strengthen Integrity and Self-discipline Awareness

Muyuan incorporates *the Integrity and Self-discipline Commitment* into labor contract clauses and includes *the Integrity and Self-discipline Management System* as a mandatory examination and certification requirement for new employees. It is linked to their probation period assessment. All employees have to undergo relevant learning, examination, certification, and signing of *the Integrity and Self-discipline Commitment* upon joining the Company. The Company organized all employees on duty to sign *the Integrity and Self-discipline Commitment*.

In 2023, the Company actively conducted various forms of integrity and honesty promotion and education activities, including thematic training, visits to warning education bases, and anti-corruption month promotion and education conferences. A total of 95 integrity and honesty training sessions were organized, achieving full coverage of all employees. This effectively enhanced the integrity awareness of all staff members and fortified their ideological defense lines against corruption.



"International Anti-Corruption Day" Warning Education Activities



Sales Department Integrity and Honesty Conference

Innovative Development

Establish an Innovative Research and Development Platform

Muyuan places high importance on and encourages technological innovation, continuously increasing investment in research and development, providing a favorable environment for R&D personnel, and attracting outstanding scientific research talents. It has established and improved innovative incentive systems and built innovation research and development platforms. In 2023, the Company's R&D expenses amounted to 1.50% of its operating income, totaling 1.658 billion yuan. By the end of 2023, Muyuan had undertaken six national key special projects and received four provincial science and technology progress awards.



Promote Cooperation among Enterprises, Universities and Research Institutes

Muyuan conducts university-enterprise cooperation and jointly establishes industrial research institutes to achieve high-level integration among enterprises, universities and research institutes, effectively enhancing the new quality productivity. Muyuan collaborates with universities such as Westlake University and Henan Agricultural University, as well as research institutions, to jointly build industrial research institutes. Focusing on areas such as synthetic biology, intelligent farming, environmental management, disease prevention and control, and nutrition and health, forward-looking research and development are conducted to create a new benchmark for enterprises-universities-research institutes integration. This effectively enhances technological innovation vitality and provides consumers with healthy and nutritious pork products.

Practical Achievements Enterprises-Universities-Research Institutes Collaboration

On July 10, 2023, the unveiling ceremony of the fourth and fifth batches of provincial laboratories in Henan Province was held. Among them, Muyuan Laboratory, jointly led by Westlake Muyuan Synthetic Biology Research Institute and West Lake University, with the participation of Henan Academy of Sciences, Henan Agricultural University, Nanyang Institute of Technology, Hangzhou West Lake Education Foundation, and Muyuan, was listed among the fifth batch of four laboratories. In the future, Muyuan Laboratory will focus on building a first-class synthetic biology innovation platform, establishing a comprehensive green and low-carbon technology system and green manufacturing support system, and achieving dual breakthroughs in original scientific research and industrial implementation of results.



The Unveiling Ceremony of Muyuan Laboratory



On-site Office Operations at Muyuan Laboratory

On October 30, 2023, Henan Agricultural University and Muyuan held a cooperative symposium at the Company. The meeting discussed various topics including Muyuan's core cultural concepts, achievements in intelligent equipment research and development applications, integration of production and education between Muyuan and Henan Agricultural University, and future plans. Subsequently, specific cooperation projects between the two will be further clarified, and efforts will be made to solidify the work of the joint research institute to truly serve industrial development.



Unveiling of HAU Muyuan Joint Industrial Research Institute of Animal Husbandry



Visiting the Intelligent Technology Exhibition Hall

On the morning of December 19, 2023, the groundbreaking ceremony for Henan Muyuan Anliang Synthetic Biotechnology Co., Ltd. with an annual production of 30,000 tons of synthetic biological products was held in Neixiang County, Henan Province. This event also marked the unveiling ceremony of the Muyuan Laboratory and the production test base of the Nanyang West Lake Muyuan Synthetic Biology Research Institute. This significant occasion further solidified the research and application of synthetic biology technology, aiming to enhance pig production efficiency.



Groundbreaking Ceremony



Unveiling Ceremony

Attract Outstanding Scientific Research Talents

Talent development is the core of enterprise growth. Muyuan builds an open career platform to attract outstanding scientific research talents. As of the end of 2023, Muyuan Group had a total of 6,681 research and development personnel, accounting for 5.09% of all employees. Among them are elite talents from top domestic and international universities such as Tsinghua University, Peking University, the Chinese University of Hong Kong, and George Washington University. Their research directions cover various professional fields including artificial intelligence, synthetic biology, and information technology.

By the end of 2023

6,681 R&D personnel

R&D personnel accounting for

5.09%

Optimize Innovation Incentive Mechanisms

Muyuan shares the fruits of development with its employees under the incentive principles that rewards will go to anyone who creates value; whoever creates value first will be rewarded first; and those who create more value will get more rewards. We will continue to optimize the incentive mechanism and reward handsomely those who make achievements. The reward standards are consistent, regardless of internal and external personnel, professional and non-professional personnel, and the difficulty of the project. Through sufficient rewards, we are able to encourage the talent's enthusiasm and potential for innovation.

The Company designates June 22 of each year as the annual Pig Festival, where significant rewards are given to innovative leaders and teams who make outstanding achievements, stimulating more breakthroughs and more leaders to proceed from the original point. This approach effectively integrates innovative development with practical production, facilitating the effective transformation and implementation of R&D achievements, and continuously driving industry progress. As of 2023, the Company has held the eighteen annual Pig Festival, continuously motivating talent innovation through comprehensive incentive measures.



Awarding Professor Yu Bo from the College of Veterinary Medicine, South China Agricultural University the "Outstanding Contribution Award".



Awarding the "Million-Yuan Innovation Prize" to Professor Li Xinjian's team from the College of Animal Science, Henan Agricultural University

Enhance Intellectual Property Protection

Muyuan adheres to laws and regulations such as *the Trademark Law of the PRC*, *the Patent Law of the PRC*, and *the Copyright Law of the PRC*, continuously refining its intellectual property protection system and strengthening the protection of company trademarks, patents, copyrights, and other intellectual property rights. The Company has established an intellectual property team, with dedicated personnel responsible for intellectual property management, while also reinforcing employees' awareness of intellectual property protection to enhance brand competitiveness.

As of the end of 2023, Muyuan and its subsidiaries have accumulated 2,142 patent applications, with 1,626 patents granted. Many of these patented technologies are at the forefront domestically and internationally. Specifically, in 2023, the Company applied for 181 patents and obtained 185 patents (including some from previous years that were granted in 2023).

Environmentally Friendly Development

Low-carbon Actions

Green Production

Sustainable Agriculture

Ecological Restoration and
Biodiversity Conservation

SDGs referred to in this chapter

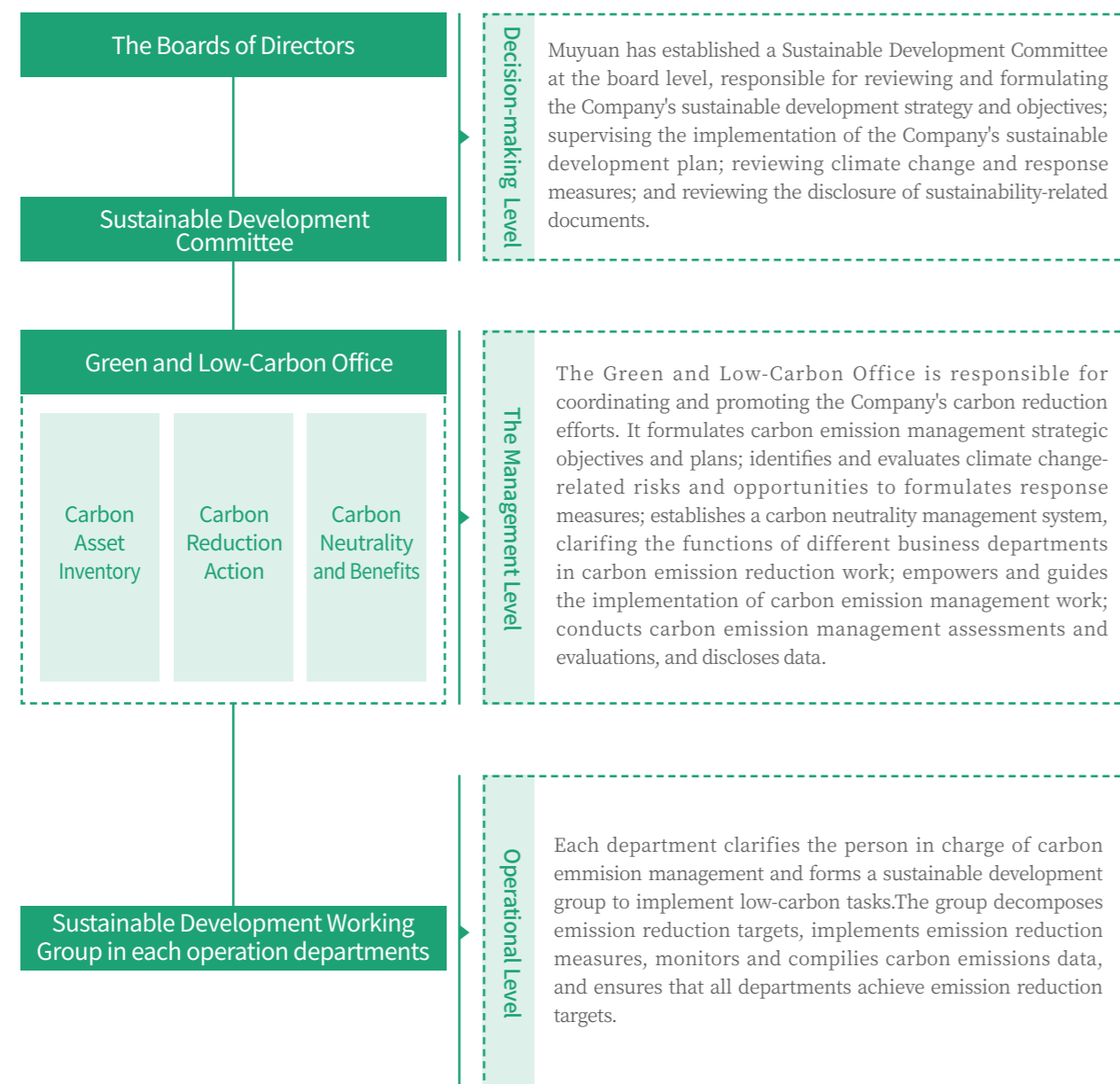


Low-carbon Actions

Climate change has become an issue of common concern around the world, and Muyuan highly recognizes the importance of green and low-carbon for the sustainable development of enterprises. We comprehensively carry out carbon inventory, identify climate risks and opportunities, actively take low-carbon actions, and fulfill corporate responsibilities. This report uses the ISSB framework to disclose the Company's response to climate change issues.

Governance

Muyuan has established a low-carbon management structure composed of "decision-making, organizational, and operational levels", clarifying the supervision and management responsibilities at each level, and promote green, low-carbon and sustainable development from top to bottom.



Strategy

Muyuan has incorporated low-carbon development into its sustainable development strategy framework, establishing five carbon asset management businesses: "carbon emission reduction, carbon branding, carbon gains, carbon services, and carbon net zero." Clear reduction pathways have been defined, along with mid-term and long-term carbon reduction goals. Through technological innovation and management improvements, Muyuan actively manages its carbon emissions by enhancing production quality and efficiency, implementing energy-saving measures, and utilizing renewable energy sources. It focuses on reducing both Scope 1 (direct emissions) and Scope 2 (indirect emissions) emissions, extending carbon reduction practices to the entire life-cycle of pork production. This synergistic approach along the value chain aims to produce green, low-carbon pork, contributing to the achievement of dual carbon goals.

2025

The carbon intensity of 1kg pork will be reduced by 2.5% (including feed, farming, and slaughter)

- The utilization of biogas will be increased by 50.6%.
- The installed capacity of distributed photovoltaic power generation will be increased to 50MW.
- The installed capacity of biogas power generation will reach 10MW.
- Further optimization of the energy structure, reducing the proportion of fossil energy use.
- Implementation of soil test and fertilization and serve an area of 4.62 million mu(308,000hm²).

2030

Implement carbon emission reduction management throughout the life-cycle of pork production, reducing the carbon intensity of 1kg pork by 5%

- The utilization of biogas will be increased by 348.9%.
- The installed capacity of distributed photovoltaic power generation will be increased to over 10GW.
- Organic fertilizer utilization will increase, with the proportion replacing chemical fertilizer exceeding 50%.
- Straw recovery and treatment will be explored to reduce greenhouse gas emissions from farmland.
- The Muyuan Carbon Management Platform will be launched.
- Employee carbon emission assessment will be implemented, encouraging individual carbon reduction.

2050

Joint efforts of the entire society to achieve a global warming limit of less than 1.5°C



- Continuous improvement of energy-saving, carbon reduction, and carbon sequestration measures will be pursued to achieve ultimate carbon emission reduction.
- Carbon reduction services will be provided throughout the industry chain to assist in collective emission reduction.
- Exploration of ESG financial investments will be conducted to support the low-carbon industry chain upgrading and transforming

Note: The total GHG emissions of Muyuan in 2021 is used as a baseline for future mitigation actions

Whole Life-cycle Low-carbon Action

Around the Company's carbon reduction goals and strategic planning, MUYUAN has outlined the carbon reduction path and key measures for the entire life-cycle of pork. At the current stage, the focus is on reducing carbon emissions in Scope 1 (direct emissions) and Scope 2 (indirect emissions).

Feed (Scope 1, 2)	Low-soybean meal diets	
	Feed bulk packaging	
	Biogas utilization	
Farming (Scope 1, 2)	Pig house heating without fossil fuels	
	Photovoltaic power generation	
	Biogas utilization	
	Feed pipeline transportation	
	Application of new energy vehicles	
	Closed management of exhaust gas purification	
Slaughtering (Scope 1, 2)	Green factory	
	Photovoltaic power generation	
	Waste heat recovery	
	Lightweight packaging	
Planting (Scope 3)	Reduced use of fertilizers	
Grain transportation (Scope 3)	Optimized transportation structure	
	Localization of grain procurement	
	Promotion of new energy vehicles	

Logistics (Scope 3)	Dedicated transportation	
	Increase of vehicle full loading rate	
Consumers (Scope 3)	Green products	

Low Carbon Technology Innovation and Application

Low-soybean meal Diets

The Company is committed to researching low-soybean meal diets, tailoring optimal nutritional requirements for different breeds, growth stages, and types of pig groups. Through variable frequency mixing technology, it establishes dynamically adjustable nutritional ratios to meet the nutritional needs of pig groups while reducing the use of soybean meal. This approach avoids excessive intake of protein and reduces greenhouse gas emissions.

In 2023, the Company's soybean meal consumption ratio further decreased from 7.3% in 2022 to 5.7%, significantly lower than the industry average of 13%. This reduction is equivalent to saving 31.20kg of soybeans per pig, reducing nitrogen emissions by 80,700 tons, and reducing greenhouse gas emissions by 146.6 thousand tons of CO₂e.

Nitrogen emissions reduction

80,700 tons

GHG emissions reduction

146.6 thousand tons of CO₂e

Pig House Heating without Fossil Fuels

To reduce heating energy consumption, the Company has developed and implemented pig house heating without fossil fuels. By installing insulation boards on the walls of pig houses and implementing heat exchange for incoming and outgoing air, the heat from exhaust gases is recovered, reducing heat loss in the pig houses. This initiative reduces the consumption of natural gas and coal for winter heating from the source, achieving energy savings and emission reductions. In 2023, this resulted in a reduction equivalent to 333.5 thousand tons of standard coal usage and a decrease of 867 thousand tons of CO₂e greenhouse gas emissions.

Standard coal usage reduction

333,500 tons

GHG emissions reduction

867,000 tons of CO₂e

Energy Management

Distributed Photovoltaic Power Generation

To further promote clean production, the Company fully utilizes the roof resources of its farms/factories to build distributed photovoltaic power generation facilities, advancing the large-scale development of solar power generation. This is achieved through a model of low-voltage grid connection, self-use, and surplus electricity grid connection, which reduces the consumption of fossil energy. Muyuan has established a new energy company to integrate upstream and downstream advantages of the new energy industry and promote photovoltaic power generation.

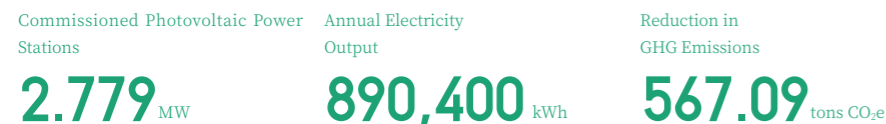
As of the end of 2023, the Company has constructed rooftop distributed photovoltaic power generation facilities in 41 farms, with a cumulative installed capacity of 207.9 MW. Among these, the newly added distributed photovoltaic power generation installed capacity in 2023 was 117.4 MW, with a total electricity generation of 36.884 million kWh from January to December 2023, resulting in a reduction of 15.2 thousand tons of CO₂e greenhouse gas emissions.



Extending application

Photovoltaic Power Generation Project in Suiyang Farm No. 5, Henan

In November 2023, the Photovoltaic Power Generation Project in Suiyang Farm No. 5, Henan, with a capacity of 2.779 MW, was commissioned. During this reporting period, the project generated an annual electricity output of 890,400 kWh, resulting in a reduction of 567.09 tons of CO₂e greenhouse gas emissions.



Aerial View of the Photovoltaic Power Generation Project in Suiyang Farm No. 5, Henan

Biogas Utilization

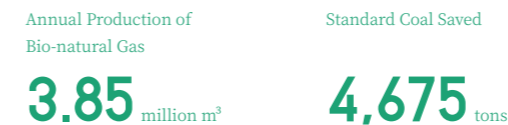
Muyuan actively explores comprehensive ways to utilize biogas, whereby biogas generated from livestock manure undergoes dehydration and desulfurization purification before being transported to feed mill boilers, harmless treatment workshop boilers, biogas generators, and other equipment for utilization. In 2023, 30 new biogas utilization projects were established, including 9 biogas power generation projects, with a cumulative installed capacity of 16MW and an annual maximum power generation capacity of 84.24 million kWh. Throughout 2023, the total biogas utilization amounted to 34.45 million m³, saving 22.39 million m³ of natural gas and reducing greenhouse gas emissions by 1.8378 million tons of CO₂e.



Technical Application

Biogas Purification Project in Neixiang Complex

In 2023, a biogas purification project was initiated in the Neixiang Complex, employing Pressure Swing Adsorption (PSA) technology to purify biogas generated from the livestock farm into biogas with a methane content of over 96%. The purified biogas, now classified as bio-natural gas, is transported by tank trucks to surrounding feed mills for combustion. This project produces 3.85 million m³ of bio-natural gas annually, saving 4.675 thousand tons of standard coal.



Adoption of New Energy Vehicles

The Company actively promotes the replacement of fuel vehicles with electric vehicles for operations such as disinfection, pig transfer, and product transportation, etc. In 2023, over 560 fuel vehicles were replaced with electric transport vehicles.

Feed Pipeline Transport

The supply of feed to the farms is optimized by transporting feed from centralized storage tanks to pig feed troughs through the feed chain, replacing traditional vehicle transportation. This not only reduces transportation energy consumption but also decreases feed dust emissions.

Energy Consumption Monitoring and Management

The primary energy consumption of the Company comprises electricity and natural gas. It actively promotes energy-saving technology innovation and the application of energy-saving equipment to reduce energy consumption. Additionally, it establishes an Internet of Things (IoT) platform to monitor and finely manage energy consumption data in real-time through an energy consumption detection system. This enhances energy utilization efficiency and reduces energy consumption. In 2023, the Company's energy consumption intensity was 0.1975 kg of standard coal/kg pork, representing a 12.96% decrease compared to the previous year.

Indicator	Unit	2023	2022	2021
Diesel	Liters	79,547,301.79	81,893,303.65	70,072,490.09
Gasoline	Liters	14,082,124.55	12,061,076.15	18,417,548.36
Gas	Cubic Meters	124,220,654.99	218,839,075.60	129,469,790.60
Electricity Consumption	MWh	6,045,117.82	5,142,753.02	4,328,154.29
Total Energy Consumption	Tons of Standard Coal	1,006,482.28	1,010,437.76	793,881.24
Energy Intensity	kg Standard Coal/kg Pork	0.1975	0.2269	0.2114

Establishment of Green Factories

Muyuan actively promotes the establishment of green factories. Our Neixiang Slaughterhouse has been awarded the national-level Green Factory certification, and we will comprehensively promote the establishment of green factories throughout our slaughterhouses. Additionally, we will actively participate in the development of the group standards for zero-carbon factories in Henan Province, aiming to facilitate the implementation of zero-carbon factory projects.



Waste Gas Management

Sterilization and Deodorization

The Company innovatively employs air filtration systems in pig houses, with sterilization and deodorization systems installed at the outlet. The waste gases generated during farming and slaughter processes are collected through a gas collection pipeline and purified by this system, achieving a 97.3% removal rate of ammonia. In 2023, there was a total reduction of 26.7 thousand tons of ammonia emissions, equivalent to reducing greenhouse gas emissions by 125.2 thousand tons of CO₂e.



Technology Promotion

Publicize waste gas purification technology to assist the industry in reducing ammonia emissions

In 2022, Muyuan, in collaboration with the Henan Provincial Department of Agriculture and Rural Affairs and the Department of Ecology and Environment, proactively publicized waste gas purification technology. Muyuan promoted the construction of ammonia emission reduction facilities in large-scale enclosed livestock and poultry houses, contributing to achieving the target of reducing ammonia emissions from large-scale farms in Henan Province by 5% compared to 2020 levels.

Muyuan actively responded to the State Council's 2023 "Action Plan for Continuous Improvement of Air Quality" by proactively publicizing waste gas purification technology to help the industry reduce ammonia emissions.

In 2023, Muyuan assisted in the upgrading and transformation of waste gas purification in large-scale farms in Huaibin County, Henan Province, and in Guangxi State Farms. This effectively reduced dust (PM10, PM2.5) in the exhaust air and reduced GHG emissions such as N₂O.

Fully Enclosed Management

The Company implements fully enclosed management for all pig houses and farms' environmental facilities. It introduced innovative air-filtered pig houses, where gases emitted inside the pens are collected, sterilized, and purified. Waste is transported in a sealed manner and directed to HDPE black membrane anaerobic lagoon, effectively reducing GHG emissions during production and waste treatment processes.

Carbon Sequestration in Farmland and Reduction of Fertilizer Usage

Crop-livestock cycle

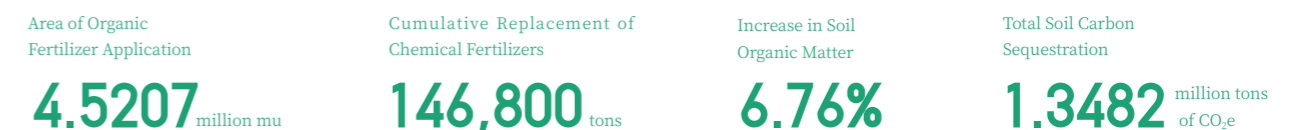
The Company implements crop-livestock cycle, where waste generated during pig farming is managed based on the principle of "production with reduced wastes, harmless treatment, resource utilization and ecological recycling". This model constructs a circular economy pattern that features mutual benefits between pig farming and crop planting, reducing emissions of gases like ammonia and methane and creating a low-carbon sustainable agricultural industry chain.

In 2023, Muyuan established seven agricultural research and development bases in provinces including Henan, Hebei, Heilongjiang, Jiangsu, and Guangxi, to explore green and low-carbon emission reduction pathways and promote low-carbon development in agriculture.



Crop-livestock Cycle Demonstration Field in Guannan County, Jiangsu

In 2023, through resource utilization, Muyuan applied organic fertilizer to a total area of 4.5207 million mu (301,380hm²), replacing a cumulative total of 146.8 thousand tons of chemical fertilizers. This led to a 6.76% increase in soil organic matter and a total soil carbon sequestration of 1.3482 million tons of CO₂e.



Low-carbon Packaging

Bulk Feed Adoption

Muyuan actively promotes the adoption of bulk raw material procurement. In 2023, the bulk procurement of raw materials accounted for 94.41%. The bulk delivery of feed amounted to 21.5442 million tons, with a bulk delivery rate of 99.99%.

Optimized Packaging Design

Muyuan optimizes packaging standards by adjusting dimensions and reducing plastic thickness, minimizing unnecessary layers and material usage.

Launch of Recycling Programs

Muyuan employs environmentally friendly materials such as PP and PE to replace PVC, facilitating resource recycling.

Supply Chain Packaging Management

Muyuan enhances plastic quality management to reduce waste. Transitioning from flatbed trucks to high side trucks for crate transport decreases the risk of scrap and minimizes the use of wrapping film during transportation.

Low-carbon Transportation

We're actively advancing local procurement practices to cut down on lengthy transportation routes. In 2023, our locally sourced grain procurement accounted for 89%, marking a 4.87% increase from the previous year.

We're streamlining the transportation of raw materials by implementing multi-modal solutions for distances exceeding 500 kilometers. This includes ramping up our reliance on inland waterways and railways. In 2023, maritime shipments totaled 958,800 tons, while railway transportation amounted to 612,500 tons, collectively constituting 39.19% of our self-transportation volume. By reducing road transport by 1,571,300 tons, we've also curbed GHG emissions by 824,000 tons CO₂e.

Moreover, at the pivotal logistics hub of Zhoukou Port, we're spearheading the transition to new energy semi-trailers, a pilot initiative that's proven successful. Looking ahead, we're planning to scale up this effort with a fleet of 300 new energy vehicles.

Low-carbon Life

Empty Plate Campaign

Recognizing the value of resources and the effort behind labor, Muyuan actively promotes the Empty Plate Campaign across the Company, fostering a culture of food conservation. This initiative includes displaying slogans promoting clean plates in dining areas to encourage all staff to participate. Additionally, an empty plate management system has been established, implementing joint assessments among diners, food service staff, and chefs. An Empty Plate Action Group has been formed for public oversight.

Table Leaders are responsible for meal ordering, paying a deposit for finishing all dishes, promoting the empty plate culture, and encouraging everyone to participate. Deposits are refunded if all dishes are eaten up, or, if not, the deposit will be deducted based on how much was wasted. Encouraged by Muyuan's efforts, some industry peers have also started the Empty Plate Campaign.

Green Office

We vigorously advocate for green office practices to reduce office supplies and energy consumption. This includes utilizing various online office and collaboration systems such as Smart Muyuan and Muyuan's intelligent platform for remote work. We collaborate with third-party travel agencies, opting for corporate-paid business trips to reduce travel invoice printing and unnecessary travel. Employees are encouraged to print double-sided or reuse single-sided paper to increase paper utilization. Electronic signatures are promoted (with 300,000 instances in 2023). Practices such as unnecessarily leaving lights, taps, and electronic devices on are strictly discouraged. Air conditioning is set to 25°C; heating or air conditioning is not used with windows open; during peak hours, to improve energy efficiency, elevators won't stop at certain floors.



Green Commuting

Employees are encouraged to carpool and purchase electric vehicles. Charging stations are installed in the office area to support new energy vehicle infrastructure, reducing carbon emissions from employee commuting.

Risk Management

The Company pays close attention to the impact of climate change on human society and the livestock industry, integrating climate risks into its overall risk management framework. Based on the effects of climate change on business operations, we identify and analyze potential impacts and corresponding mitigation measures under climate risks (physical risks and transition risks).

Physical Risks and Response Measures

Risk Description	Risk Response
<p>Extreme cold weather leads to:</p> <ul style="list-style-type: none"> Increased risk of spreading pathogenic microorganisms and infecting pigs. Adjustments in pig house temperature, resulting in increased energy consumption. Water sources freezing, limiting pigs' access to water. Impact on the storage and supply of feed, affecting the feeding effectiveness of pigs. 	<ul style="list-style-type: none"> Enhance disease prevention and control measures to safeguard pig health. Develop smart environmental control systems for precise regulation, ensuring consistent conditions year-round. Implement insulation measures to prevent water source freezing. Establish emergency plans to address risks.
<p>Extreme hot weather leads to:</p> <ul style="list-style-type: none"> Increased risk of heat stress in pigs, resulting in reduced appetite and hindering their growth and development. Elevated water demand for pigs, and insufficient water supply can impede pig growth. Persistent high energy consumption to uphold environmental conditions. 	<ul style="list-style-type: none"> Develop smart environmental control systems for precise regulation, achieving year-round stable conditions. Strengthen water source monitoring and supply to ensure animal drinking and production water. Establish emergency plans for risks.
<p>Heavy rainfall leads to:</p> <ul style="list-style-type: none"> Pollution of water sources near the farms, impacting pig growth and health. Damage to production facilities, resulting in economic losses. Floods caused by heavy rainfall may lead to low-lying breeding facilities being submerged, resulting in losses in fixed assets and pig mortality. 	<ul style="list-style-type: none"> Prioritize selecting higher ground for farm locations, enhance farm drainage system construction, and reduce impacts on pig farms. Regularly test water quality in farming areas and inspect and maintain facilities. Develop flood prevention plans, conduct personnel training, and strengthen flood prevention material preparation.
<p>Typhoons leads to:</p> <ul style="list-style-type: none"> Damage or destruction of facilities, leading to the risk of pigs escaping or dying. Interruption of the supply chain, affecting production operations. 	<ul style="list-style-type: none"> Create emergency plans, including safe evacuation plans and urgent maintenance for facilities when typhoons approach. Purchase catastrophe insurance to mitigate economic losses from risks.
<p>Biodiversity loss leads to:</p> <ul style="list-style-type: none"> Impaired crop pollination, pest control, and other agricultural processes, negatively affecting agricultural production and feed supply. Disruption of ecosystem services, increasing the risk of diseases. Disturbance of aquatic ecosystem balance, thereby affecting water quality and supply. 	<ul style="list-style-type: none"> Increase innovation in R&D, diversifying feed sources. Enhance disease prevention and control efforts to improve pig health. Promote sustainable development of ecological and circular agriculture to maintain ecosystem health. Conduct regular environmental monitoring and assessment to promptly identify and address potential environmental issues.

Transition Risks and Response Measures

Risk Description	Risk Response
Policy and Legal Risks ·National energy structure shifts towards non-fossil energy sources; ·Charging fees to carbon emitters to encourage them to prioritize low-carbon production and reduce carbon emissions.	·Actively promote the use of renewable energy such as photovoltaic power generation and biogas utilization; ·Actively innovate energy-saving technologies to reduce energy consumption and emissions; ·Conduct "Green and Low-Carbon Benchmarking" activities to promote green and low-carbon production.
Technology Risks ·Business development shifts towards low-carbon farming, but the technology is immature; ·Increased financial investment in low-carbon technology research and equipment transformation.	·Participate in national and industry key low-carbon research projects, improve the pork production technology system, and promote the industry's low-carbon and green upgrading; ·Strengthen exchange and cooperation to promote comprehensive energy solutions.
Market Risks ·With the increasing environmental awareness among customers and consumers, the low-carbon and environmental attributes of products may become a new criterion for choices.	·Carry out energy conservation and emission reduction throughout the entire life cycle, actively provide environmentally friendly products that consumers can understand; ·Strengthen sales-side training to enhance their understanding of the Company's low-carbon work progress and performance, thus accurately conveying to customers.
Reputation Risks ·Stakeholders pay more attention to the Company's response to climate change. If the Company's related work fails to meet expectations and respond to stakeholders' concerns timely, it may affect the Company's reputation.	·Establish a Sustainable Development Committee and a Green and Low-Carbon Office, with senior management's attention and promotion of climate change-related work; ·Actively publish ESG reports and Green and Low-carbon Action reports, systematically disclose the Company's latest actions in addressing climate change, natural resource consumption, and other issues.

Alongside identifying climate risks, we also evaluate the opportunities arising from climate change and implement corresponding response measures.

Transition Opportunities and Response Measures

Opportunity Description	Response Measures
Resource Efficiency	We actively promote clean production and energy-saving technologies, vigorously develop renewable energy sources such as solar and biomass energy, reducing fossil fuel consumption, operational costs, and driving sustainable industry development.
Explore Agriculture Carbon Sink Mechanism	By implementing integrated crop-livestock systems, we explore agricultural carbon sink projects, aiming to reduce greenhouse gas emissions and enhance carbon sequestration capacity through green and low-carbon agricultural practices.
Adaptability	The Company actively addresses climate change risks by exploring green technologies, reducing reliance on natural water resources, enhancing resilience, achieving high-quality development, and seizing broader development opportunities in line with national policies and socioeconomic trends.
Enhance Product Value	We enhance green product innovation, elevate product ethical value, to better win consumer recognition in the future, and enhance product competitiveness.
Brand Value	We continuously strengthen the disclosure and promotion of sustainable production, environmentally friendly farming methods, and other aspects to build a positive brand image.
Business Model	We research diverse protein products and markets to create healthier, more nutritious food. This includes optimizing feed, developing plant-based supplements, and exploring alternatives like plant, microbial, and insect proteins. We broaden our business to counteract climate change's impact, such as boosting organic fertilizer output and utilizing biomass energy.

Indicators and Targets

The Company conducts carbon footprint verification in accordance with the ISO 14064 standard and the "2006 IPCC Guidelines for National Greenhouse Gas Inventories" published by the United Nations Climate Change Committee. Each year, the entire industry chain, including feed processing, pig farming, meat processing, and waste treatment, undergoes GHG accounting. Annual carbon intensity targets are established and the achievement of these targets is tracked.

In 2023, the carbon intensity was 0.964 kgCO₂e/kg pork, representing a 3.4% reduction compared to the previous year.

Carbon Emissions per kg Pork Decrease Compared to Previous Year

0.964 kgCO₂e

3.4%

Greenhouse Gas Emissions in the Past Three Years

Accounting Scope	2023	2022	2021
Scope 1 Emissions (10,000 tons CO ₂ e)	416.47	389.45	307.65
Scope 2 Emissions (10,000 tons CO ₂ e)	381.54	340.56	283.54
Total Carbon Emissions (10,000 tons CO ₂ e)	798.01	730.01	591.19
Carbon Reduction (10,000 tons CO ₂ e)	331.12	319.72	251.06
Net Carbon Emissions (10,000 tons CO ₂ e)	466.89	410.29	340.13
Carbon Intensity (kg CO ₂ e/kg Pork)	0.964	0.998	1.049

Note: The Company promotes low-soybean meal diets, pig house heating without fossil fuels, and photovoltaic power generation, effectively reducing GHG emissions by 1.0288 million tons of CO₂e. If we include the reduction value of this emission reduction and that in the production process, the total carbon emission reduction in 2023 amounts to 4.34 million tons of CO₂e.

Emission Reduction Indicators and Targets

Indicator	2023 Performance	2023 Target Value	2024 Target Value
Photovoltaic Power Generation (10,000 kWh)	3,688.44	1,800.51	25,000.00
Biogas Utilization (10,000m ³)	3,445.07	3,413.56	5,702.00
Biogas Power Generation (10,000 kWh)	1,667.76	1,500.00	2,126.00

Green Production

Muyuan consistently practices green development, adhering to the principle of "never pass on costs, never shirk responsibilities, and never leave hidden dangers." It strictly complies with national environmental laws and regulations, setting five environmental protection goals of "zero emissions, no hidden dangers, no odors, smog reduction, and carbon emission reduction". We continuously enhancing our environmental management system, promoting clean production, strengthening waste management, and persistently reducing environmental impact.

Environmental Management System

Organizational Responsibilities

Environmental Logistics Department: Responsible for overall environmental management, and the Department comprises Ecological and Environmental Technology Division and other three levels of environmental management: regional, subsidiary, and site.

Ecological and Environmental Technology Division: Innovates and applies environmental technologies, provides guidance and training, and enhances operational efficiency.

Provincial Environmental Logistics Department: Formulates regional plans, supervises compliance, and ensures adherence to environmental policies.

Subsidiaries and Sites: Ensure the compliance with environmental standards and regulations.

Environmental Monitoring Department: Directly reports to the Board of Directors, and acts as an independent oversight body. Through its six inspection divisions, it continually monitors and supervises environmental practices across Company regions and sites. It regularly reports to the Board to ensure compliance with environmental policies and standards, thereby enhancing overall environmental operational efficiency.

Institutional Safeguards

To mitigate environmental risks in production operations and enhance environmental governance performance, the Company continuously improves its environmental management system. Currently, 26 management protocols have been developed, including those for environmental risk identification and management, environmental operational standards, and environmental inspection management. Additionally, environmental operational management is integrated into the assessment and evaluation of relevant personnel and sites to ensure environmental compliance throughout production and operations.

Standards: *Environmental Compliance Risk Identification and Management Standard, Environmental Operational Quality Management Standard, Benchmarking Standard for Environmental Operation Evaluation, etc.*

Protocols: *The Environmental Protection Operation Management System, Water Pollution Control Procedures, Solid Waste Pollution Control Procedures, Harmless Disposal of Dead Pigs Management Protocol, Hazardous Waste Management Protocol, Supporting Agricultural Network Management Protocol, Environmental Red-Yellow Card System, etc.*

Contingency Plans: *Emergency Response Plan for Sudden Environmental Incidents*

Empowerment and Certification

In 2023, the Company organized over 550 environmental protection training sessions, carried out systematic environmental technology certifications for 34 items, and empowered training certifications for 7,860 individuals. This effort ensured the implementation of environmental laws and regulations, operational standards, technological processes, and relevant environmental cases among frontline staff. It enhanced their awareness of risks and compliance while improving their technical capabilities, ensuring that high standards of environmental requirements were implemented at every site.

Environmental Investment and Innovation

The Company continues to increase its investment in environmental upgrades to enhance environmental governance performance. In 2023, a total of 1.056 billion RMB was invested in upgrading environmental processes and supporting agricultural network construction.

Resource Utilization Technologies

Resource utilization pathways for 2 crops were newly developed, bringing the total number of crops to 39.

Biogas Slurry Recycling Methods

Tailored liquid fertilizer application methods are employed based on different terrain and crop types to ensure precision and uniformity, thereby enhancing the effectiveness of biogas slurry application.

Livestock Manure Treatment

The application of simultaneous partial nitrification and denitrification (SPND) achieves rapid degradation of organic matter while effectively controlling total nitrogen in effluent. Ammonia nitrogen is converted into nitrate nitrogen fertilizer, mitigating risks without reducing fertilizer efficiency.

Biogas Purification Project

Biogas from livestock farms is purified to produce biogas with methane content exceeding 96%, reducing fossil fuel consumption and aiding carbon emission reduction efforts.

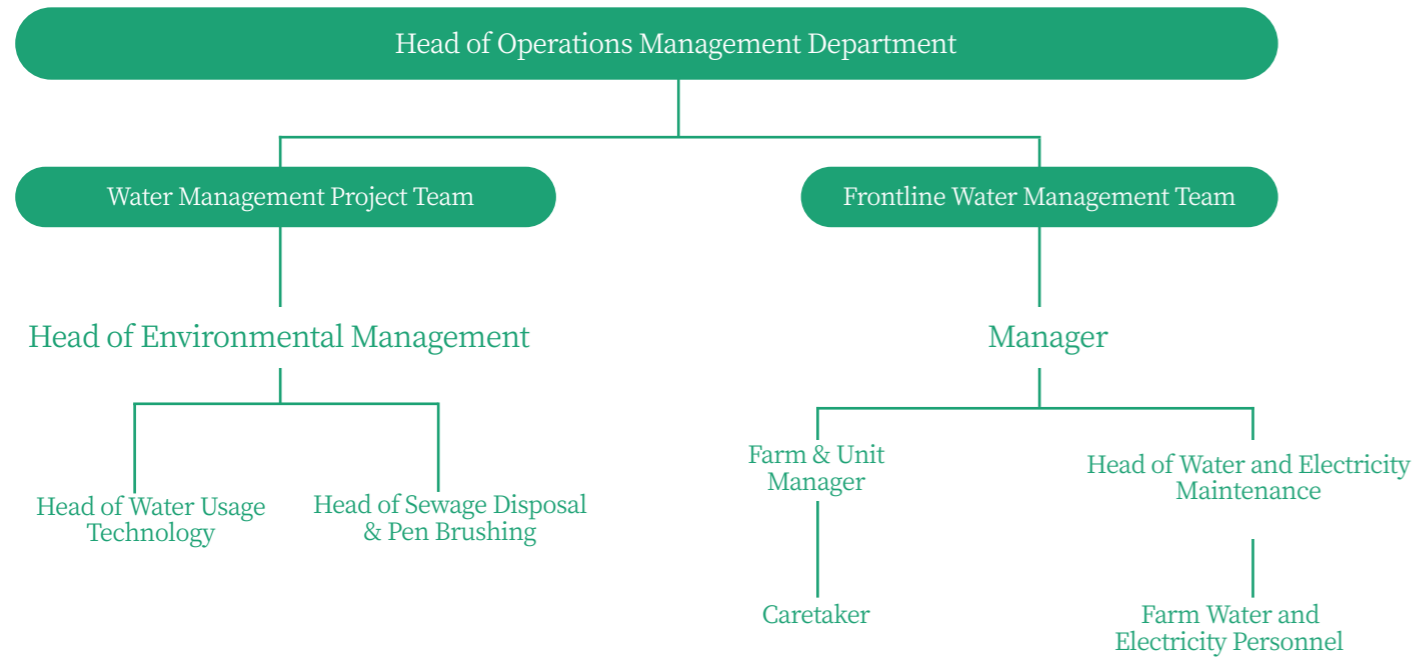
Water Resource Management

Water resources are vital for the Company's production and operations. The Company places great importance on water resource management and upholds the commitment to "sustainable water use." It identifies water resource risks and has developed the Livestock Farm Standard Water Management System, Livestock Farm Water Quality Sampling Management System, Slaughterhouse Water Conservation Management Measures, Slaughterhouse Water Conservation Incentive and Penalty System, and Water Monitoring Equipment Operation and Maintenance Management System. Innovative water-saving technologies are applied, and water usage monitoring is strengthened to promote refined water management and mitigate water risks.

Management Structure

The Company's Operations Management Department oversees water management activities, led by senior executives who formulate annual water conservation goals, plans, and performance management. The Water Resources Management Special Group is responsible for researching and promoting water-saving technologies and equipment, devising water-saving measures for various water usage points, and organizing water management training and empowerment.

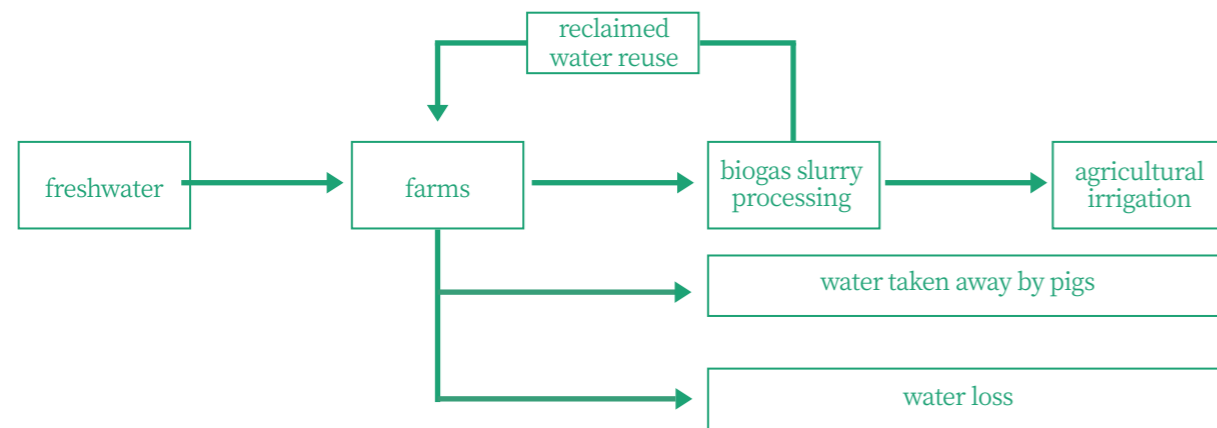
Regional teams, subsidiaries, and site-specific water management teams are responsible for implementing the Company's goals and plans. They have to promote the adoption of water-saving technologies and upgrade water-saving equipment to ensure the efficient operation of water facilities and standardized water usage practices without waste.



Organizational Structure for Water Resource Management at Livestock Farms

Water Utilization Pathways

Adhering to the concept of water recycling, the Company focuses on water footprint and conducts comprehensive water resource management across the entire business chain to improve water resource utilization efficiency and conserve freshwater resources. In the crop-livestock cycle model, water resources are reused throughout the business chain. Freshwater enters the pig farming system and is used for pig drinking water, environmental cleaning, cooling, and odor removal, ensuring healthy pig growth and providing high-quality pork products to society. Simultaneously, the wastewater generated from livestock farming becomes liquid fertilizer for crop cultivation, achieving 100% resource utilization and saving agricultural irrigation water.



Water Consumption Pathways

Water Resource Management

To ensure the rational utilization and protection of water resources and achieve sustainable development, the Company has established short-, medium-, and long-term water usage goals, which are further broken down into annual targets for various business processes and managed on a quarterly and monthly basis. By promoting technical innovations for water conservation and enhancing water management practices, the Company aims to achieve its water-saving objectives. Progress towards water-saving targets is integrated into the performance evaluations of each site manager and relevant personnel, with regular disclosures of water-saving achievements and any instances of excess water consumption to strengthen awareness and standardize water usage practices, thereby conserving freshwater resources.

Innovative Water-Saving Technologies

Crop-livestock Cycle and Water Conservation

Implementing crop-livestock cycle to utilize biogas slurry generated from farming activities for crop irrigation, reducing the need for freshwater irrigation and promoting a closed-loop water system between farming and planting.

Reclaimed Water Reuse Technology

Developing and deploying technologies for the purification and reuse of wastewater, including technologies for purifying manure water, recycling washing water, and harvesting rainwater. Treated wastewater is reused for odor control and cleaning pig pens, significantly reducing the demand for freshwater. As of the end of 2023, purification processes have been implemented in 277 farms, with an annual reuse volume of 3.7072 million m³.

Intelligent Feeding Technology

The Company has independently developed an intelligent feeding system, which utilizes smart mixing, feeding, and water supply mechanisms to ensure precise water intake by pigs, thus avoiding water wastage during the feeding process.

Sprinkler System Upgrades

Upgrading sprinkler systems with automatic vent valves to prevent water wastage caused by delayed shut-off, resulting in water savings of 3 liters per unit per spray. Approximately 5,000 sets have been deployed.

No Tower Water Tank Upgrades

Installing automatic inlet valves to reduce water wastage from pressurized water tanks, saving approximately 90 tons of water per month. Around 1,000 sets have been deployed.

Intelligent Bathrooms

Introducing water-saving bathroom fixtures that reduce water consumption to one-third of normal usage, effectively reducing water usage during sanitation activities.

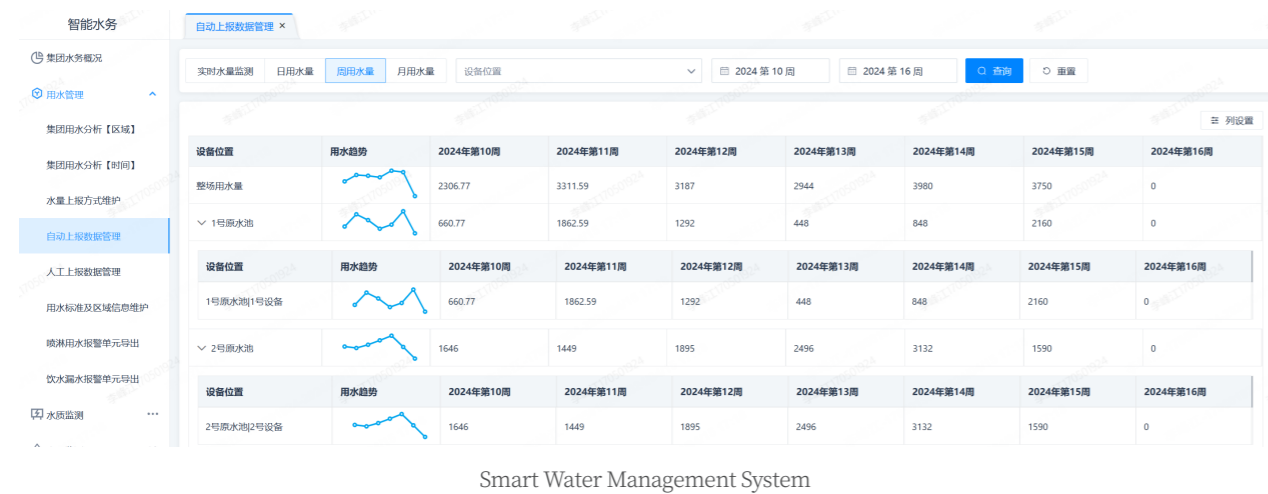
Soil Moisture Retention Techniques

By employing techniques such as "loosening instead of plowing," "rotary-till instead of plowing," "retention of high stubble for no-till planting," and "close-stubble no-till direct planting," water retention capacity can be enhanced and reduce the water loss due to runoff.

Strengthen Water Management

To comprehensively understand the water usage dynamics at various process, stages and water supply facilities, we have installed remote metering devices in each unit and at each stage of farming. This allows us to classify and monitor water usage levels. Currently, we have deployed 2,833 water monitoring points in our water resource management system. This enables us to conduct online monitoring, analysis, ranking, early warning, improvement, and test of daily water usage in pig farms, providing reliable data support for making scientifically informed water management decisions.

We utilize the Muyuan Internet of Things (IoT) platform to digitize water resource management. This platform integrates intelligent feeding, smart water management, and other services. It facilitates data interoperability between feeding and water management systems, enabling tracking and early warning of water usage, pollution generation, and reuse through manual input and automatic data collection. This continuous monitoring and analysis help us to reduce water consumption effectively.



Water Risk Management

The Company has established a water resource risk assessment system to comprehensively evaluate the water reserves and water quality around the farms. This includes mapping water quality and water risk levels and implementing graded management. Based on water resource endowment, the Company determines farm locations and scales to ensure sufficient water supply for production. Additionally, a new groundwater monitoring system has been installed to provide early warning and take preventive measures in areas where groundwater levels are declining, so as to mitigate the impact of water shortages caused by extreme weather events or river water cutoff on farm water usage.

Water Resource Risk Levels

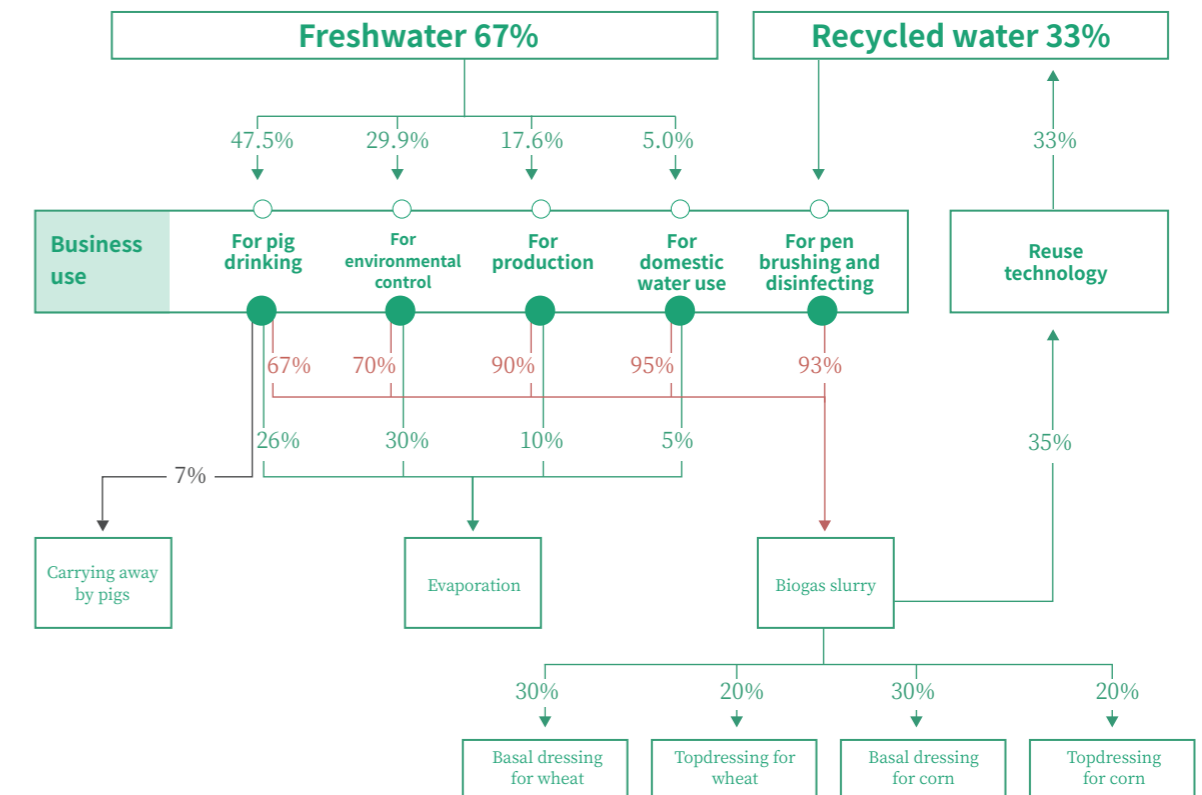
Risk level	Standard
Level 1	Water-scarce areas, prohibited extraction zones, and quantity-oriented water-deficient areas cannot meet current water demand.
Level 2	Restricted extraction areas, water quality-oriented water-deficient areas, and regions with unstable water sources (such as intermittent drying up of well water and off-site drinking water) face the risk of water shortages at any time.
Level 3	While the water source is stable, its temporal distribution is uneven. Additional water sources are needed to supplement water demand during peak usage in summer.
Level 4	Abundant water area, sufficient water source, no risk.

To ensure the safety of drinking water for pigs and reduce water usage risks, Muyuan has installed water quality monitoring equipment. It conducts monitoring assessments of water quality at each site, creates water quality maps, and develops targeted management plans based on different water qualities. At the same time, to ensure water quality stability, in addition to traditional methods such as coagulation, sedimentation, and sand filtration, the farm has incorporated ultrafiltration technology into its water treatment process. With a filtration accuracy of 30nm, the ultrafiltration system effectively removes solid particles from the water, and can even intercept most bacteria and some viruses, ensuring the health and safety of drinking water.

Practice Achievements

Water Management of Neixiang Complex

In the summer, the water usage in the Neixiang Complex is relatively high. To conserve freshwater resources, a long-term water-saving mechanism has been established. The Company has designated personnel responsible for water management. During the raising process, reclaimed water reuse technology is employed, and regular inspections are conducted to address any leaks or water wastage issues. The source of wastewater is traced, and reduction plans for end pollution are formulated, with water-saving incentives and penalties implemented. Regarding end-use, based on the water requirements of agricultural crops, biogas slurry is used for farmland irrigation, achieving the recycling of water. Through these measures, the annual water usage decreased by 1.9236 million cubic meters in 2023, achieving the dual goals of water resource conservation and pollution reduction, continuously improving water resource utilization efficiency, and reducing water usage risks.



Performance and Objectives of Water Resource Management

Index	2023 Performance	2024 Target Value	Index	2024 Target Value
Average water intensity per pig for raising (m ³ /head)	2.25	2.21	Water consumption for pig raising (10,000 m ³)	17,030
Average water intensity per pig for slaughtering (m ³ /head)	0.37	0.35	Wastewater reuse (10,000 m ³)	360
Water intensity for feed processing (m ³ /ton)	0.13	0.125	Irrigation water saving (10,000 m ³)	9,366

Waste Management

Muyuan actively conducts emissions management, proactively identifies environmental impact factors at each stage, reduces the generation of emissions from the source, and rigorously controls wastewater, exhaust gases, and solid waste generated during operations to ensure all emissions are compliant.

Operation and Management of Environmental Protection Equipment

Muyuan's environmental protection facilities for farming mainly include odor removal, solid-liquid separation, anaerobic fermentation, biogas slurry storage, and agricultural irrigation pipeline networks. To ensure the normal operation of these facilities, over 9,000 inspections covering farms, feed mills, harmless treatment facilities, and slaughterhouses were conducted in 2023. Additionally, 224 comprehensive environmental technology empowerment certifications were organized, achieving a 100% coverage rate, to comprehensively guarantee stable and efficient operation of the facilities and equipment. Furthermore, we have carried out a series of technological innovations to improve the efficiency and intelligence level of environmental protection equipment.

Names of Environmental Protection Facilities	Innovative Efficiency-Improving Measures	Efficiency Indicators
Sterilization and deodorization system	An innovative application of odor neutralizers with precise targeted addition plan has been developed, achieving precise and targeted dosing of odor neutralizers and reducing odor neutralizer consumption by 30%. Pilot testing has been successfully completed.	Ammonia removal rate > 97%, sterilization rate > 99%.
Aeration biochemical system	An innovative application of simultaneous partial nitrification and denitrification has been developed, enabling precise control of dissolved oxygen and sludge retention time. This process converts ammonia nitrogen into nitrate nitrogen fertilizer, reduces aeration tank retention time by 50%, saves 50% in infrastructure costs, and decreases aeration energy consumption by 25%. Promotion has already begun.	Processing efficiency increased by 100%, saving energy consumption by 2.69 kWh per pig
Biogas slurry land application system	Remodeled and optimized the configuration of booster pumps, pipelines, and pump units, and split the original inefficient pipe network, increasing the effective utilization rate from 89% to 93.8%; Developed and applied various irrigation methods such as reel-type sprinklers, stand pole rocker arm nozzles, electrically driven drag irrigation, and ground-inserted sprinklers to improve biogas slurry application accuracy and efficiency, covering 277 farms.	Pipeline network utilization efficiency is 93.8%, with a 50% reduction in labor usage.
Harmless treatment system	The equipment has been upgraded for intelligent automation, with added automatic control, automatic data collection and remote transmission, automatic alarm for risk and faults, etc. These functions have improved production efficiency and reduced labor intensity for employees. 20% of the upgrades have been completed.	Labor intensity reduced by 50%; Energy cost savings of 40 yuan per ton of material



Deodorization facilities



Solid-liquid separation facilities



Black membrane anaerobic lagoon



Biogas slurry land application facilities

Management of Livestock Waste

In the management of livestock waste, the Company implements a crop-livestock cycle model, constructing a ecological recycling that features mutual benefits between pig farming and crop planting through the practice of "production with reduced wastes, harmless treatment, resource utilization". In the pig raising process, solid and liquid waste are separated. Solids are processed into organic fertilizer for sale, while liquids undergo harmless treatment and are used for nearby application, achieving zero emissions. The Company pioneers odor control technology, implementing deodorization and sterilization processes across all farms to manage emitted odors effectively. Furthermore, it shares waste air purification technology with the industry to promote mutual development.

Waste categories		Sources of waste	Waste treatment methods	
Wastewater	Livestock wastewater	Animal urine/feces, wastewater from cleaning during pig raising	Resource utilization	Livestock manure undergoes solid-liquid separation followed by anaerobic fermentation (HDPE membrane) treatment. After passing the inspection, it is used as biogas slurry. Scientific soil testing and formulation are applied in farmland, achieving resource utilization and zero emissions.
	Domestic wastewater	Office, cafeteria, and other domestic wastewater	Purification and reuse of wastewater	Livestock wastewater undergoes solid-liquid separation, anaerobic fermentation, AO (Anaerobic Oxid) process, and membrane treatment. After disinfection and sterilization, it is used instead of freshwater for odor control, cleaning, and disinfection in pig farms.
Wastegas	Odor	Gases produced during the pig raising process and during the collection and treatment of manure and urine	Sterilization and deodorization treatment	Innovative application of the new pig house with air filtration, with waste gases passing through deodorizing walls for sterilization and deodorization treatment, achieving a deodorization rate of over 99%, ensuring odor lessness (Grade 0) without disturbing residents.
	Biogas	The anaerobic fermentation process of manure produces raw biogas	Resource utilization	After desulfurization and dewatering treatment, it is used for power generation, replacing gas and other supplies for farms and feed mills. Excess biogas will be flared.
Solid waste	Solid manure	The solid fraction separated by solid-liquid separation	Resource utilization	After composting fermentation in the farm, solid manure is transported externally and is produced into organic fertilizer for use in the cultivation of fruits, vegetables, and other crops, achieving resource-based fertilization and zero discharge.
	Diseased or dead livestock and poultry	The diseased or dead pigs during pig raising process	Harmless treatment	Supporting harmless treatment plants are established, adopting the method of "temporary storage in the area - sealed transportation - full-process monitoring - data reconciliation - high-temperature rendering" to ensure zero loss of dead pigs, zero blind spots in supervision, zero spread of pathogens, and zero environmental pollution.
	Hazardous waste	Medical waste, waste UV lamps, and tubes	Entrust qualified units for disposal.	Centralized collection and temporary storage of hazardous waste, regularly entrusting qualified units for harmless treatment.
	Household waste	Household waste generated in offices and daily life	Entrust qualified units for disposal	Centralized collection and temporary storage, regularly entrusting qualified units for disposal.

Manure Fertilizer Utilization Performance

Index	2023 Performance
Resource utilization rate of manure water (%)	100
Manure discharge volume (10,000 m ³)	0
Amount of manure water reuse (10,000 m ³)	348.26
Pig manure output (10,000 m ³)	74.14
Solid manure resource utilization rate (%)	100
Harmless treatment rate of diseased & dead pigs (%)	100

Odor Management Performance

Air before fourth-stage filtration	Air outlet of pig house	Sterilized and deodorized exhaust air	Removal efficiency
Odor level: Level 0	Odor level: Level 4-5	Odor concentration: Level 0	99.9%
Ammonia (mg/m ³): 0.0255*	Ammonia (mg/m ³): 5.009	Ammonia (mg/m ³): 0.13397	97.30%
Hydrogen sulfide (mg/m ³): 0.0028*	Hydrogen sulfide (mg/m ³): 0.46	Hydrogen sulfide (mg/m ³): 0	100.00%
Total particulate matter (pg/m ³): 115.59*	Total particulate matter (μg/m ³): 191.4595	Total particulate matter (μg/m ³): 1.5654	99.18%
VOC(mg/m ³): /	VOC(mg/m ³): 0.00036	VOC(mg/m ³): 0.000041	89.00%
Total number of bacteria (CFU/m ³): /	Total bacteria count (CFU/m ³): 210,000	Total number of bacteria (CFU/m ³): 45	99.90%

In the management of slaughterhouse waste, strict adherence to environmental regulations is ensured by setting control objectives and monitoring and managing the emissions of pollutants involved. Online monitoring devices are installed at the main wastewater discharge outlets to monitor the emissions of pollutants, and compliance status is publicly disclosed on the "National Pollution Discharge Permits Administration Information Platform" The Company conducts monthly comparisons of data from online devices to ensure their accuracy and reliability. Third-party testing companies are commissioned quarterly to test the water quality of the slaughterhouse's effluent. For emissions, regular testing is commissioned by third-party testing units to ensure compliance with national and local standards for pollutant emission concentrations and total amounts.

Slaughterhouse Waste Management

Waste Type	Waste Source	Processing
Wastewater	Production wastewater	Wastewater from slaughtering process, decontamination, etc. Wastewater reuse + wastewater getting into pipeline Collected through pipe network to sewage treatment system, using "grid + Grease trap + Regulating tank + Air flotation machine + Hydrolysis acidification tank + Multi-stage AO + Secondary sedimentation tank + denitrification + disinfection tank" process to reach the standard, some used for vehicle decontamination, slaughter room washing, greening, etc. for reuse. The rest is discharged to the municipal sewage treatment plant for further treatment before being released into the environment.
	Domestic sewage	

Waste Type	Waste Source	Processing
Exhaust gas	Odor from the lairage	Gases produced from pig rest and from collection of pig waste Collection and processing The waste gas from the lairage uses the "deodorization wall + chemical spraying" method to remove ammonia, hydrogen sulfide and other pollutants, the deodorization rate is more than 99%, achieving no odor, no disturbance to others.
	Exhaust gas from sewage treatment station	Gases from the anaerobic treatment process of wastewater Collection and processing The waste gas from the sewage treatment station adopts "spray tower spraying + chemical deodorization" technology. The technology removes pollutants such as ammonia and hydrogen sulfide, with a deodorization rate of more than 99%. No odor, no disturbance to others.
	Exhaust gas from boiler	Natural gas combustion Discharge after meeting emission standards The equipment adopts "ultra-low nitrogen combustion technology" steam generators. The exhaust gas can meet relevant limit requirements in the national and local "Emission standard of air pollutants for boiler".
Solid waste	General solid waste	pig hair and hoof shells Resource utilization Recycled and pre-processed by an extruder, and then sold for use in making protein feed.
	Intestinal contents	Intestinal contents from the white offal production process Resource utilization After the water content is reduced by extrusion, it can be sold for use in making organic fertilizer.
	Remaining sludge	Remaining sludge from the sewage treatment process Resource utilization After extruding and filtering to reduce the moisture content, it is sold for making nutrient soil, green manure, or earthworm farming.
	Waste mineral oil	Waste mineral oil from equipment maintenance process Entrust qualified units for disposal Hazardous waste is temporarily stored in hazardous waste room and regularly entrusted to qualified units for recycling and disposal.
	Laboratory waste	Waste from the laboratory process Entrust qualified units for disposal Hazardous waste is temporarily stored in hazardous waste room and regularly entrusted to qualified units for disposal.
	Household waste	Raw waste of life and work Entrust qualified units for disposal Domestic waste is collected and stored at temporary storage points and transported by the municipal authorities every day to domestic waste treatment plant for processing.

Slaughterhouse Wastewater Treatment Overview

Pollution factor	COD	Ammonia nitrogen	Total nitrogen	Total phosphorus
Influent concentration (mg/m ³)	855.97	78.28	104.22	18.24
Effluent concentration (mg/m ³)	25.66	0.66	5.20	0.35
Pollutant removal rate (%)	97.00	99.16	95.01	98.08

Practical Achievements

The Performance of Wastewater Treatment in Neixiang Slaughterhouse in 2023

Each slaughterhouse sets internal control standards for slaughterhouse wastewater, which are stricter than the requirements of relevant national standards. Taking Muyuan Meat Neixiang Slaughterhouse as an example, the actual concentration of wastewater discharged is far below the limits specified in the GB 18918-2002: Discharge Standard of Pollutants for Municipal Waste-water Treatment Plant.

Emission concentration (mg/L)	COD	Ammonia nitrogen	Total nitrogen	Total phosphorus
Emission Standards	50.00	5.00	15.00	0.50
Muyuan Standard	30.00	1.00	15.00	0.30
2023 Performance*	23.08	0.16	11.50	0.12

* calculated by annual weighted average

Slaughterhouse Wastewater Management Performance

Index	2023 Performance	2023 Target Value	2024 Target Value
Wastewater discharge intensity per slaughtered pig (m ³ /head)	0.39	0.40	0.35
COD emission intensity from slaughter (t/kg pork)	0.092	0.100	0.085
Ammonia nitrogen emission intensity in slaughtering (t/kg pork)	0.0024	0.0030	0.0022

Environmental Risk and Hazard Management

The Company has established an environmental risk management system, in accordance with the requirements of the Discharge Standard of Pollutants for Livestock and Poultry Breeding (HJ/T81-2001), Regulation on the Prevention and Control of Pollution from Large-scale Breeding of Livestock and Poultry, Methods for Reviewing Animal Epidemic Prevention Conditions, Technical Guidelines for Zoning of Prohibited Areas for Livestock and Poultry Farming, and other relevant regulations. It conducts identification and management of hidden risks and hazards.

Scientific Site Selection

Before the construction of any farms, the Company conducts environmental impact assessments, selecting sites away from water sources, wildlife habitats, and basic farmland. This is done while considering environmental climate, hydrogeology, soil, and vegetation cover. There is sufficient arable land or forest land surrounding the site to serve as a natural barrier for the breeding farms. Additionally, the manure produced by the farms is utilized for resource conservation on arable or forest land, achieving ecological circular development.

Site Leakage Prevention

The manure collection tanks, breeding areas, and solid manure treatment areas of the breeding farms are all constructed using a combination of compacted soil + geomembrane + geogrids (made of materials such as polypropylene) + concrete impermeable layers. This prevents livestock manure from polluting groundwater and soil, and the impermeability meets the relevant requirements of the Discharge Standard of Pollutants for Livestock and Poultry Breeding(HJ/T81-2001).

Reduce Water Use Risk

In terms of water source security, the breeding farms select areas with abundant water resources, good water quality, and convenient access to water. They obtain water abstraction permits as required, assess groundwater reserves, and identify groundwater restricted extraction areas. In some water-deficient areas, they install water level monitoring devices to monitor changes in groundwater levels and mitigate the risks associated with groundwater level decline.

The Company has established the Muyuan Pig Farming Water Quality Standard and conducts regular water quality testing and analysis. For six key indicators, testing is conducted every two weeks, while for 29 key indicators, testing is conducted annually. Based on the Common Water Quality Anomalies and Judgment Methods, any water quality that does not meet the standard is analyzed, and corrective measures are taken accordingly.

Biogas Utilization and Explosion Prevention

To prevent biogas fires and explosion risks, flammable gas alarms, video surveillance devices, flame arresters, fire-fighting equipment, and other explosion-proof measures are installed around the black membrane biogas digester and biogas transfer pipelines. Regular safety inspections are also conducted. As of 2023, the Company has installed 2,044 alarm devices and 1,533 video surveillance devices.

Reduce Risks Associated with Manure Application

To ensure the safe application of manure to fields, the Company adheres to the Technical Specification for Sanitation Treatment of Livestock and Poultry Manure (GB/T36195), Technology Code for Land Application Rates of Livestock and Poultry Manure (GB/T25246), Technical Guidelines for Calculating the Carrying Capacity of Land for Livestock and Poultry Manure, Standard for Irrigation Water Quality (GB5084), as well as relevant local standards. To prevent secondary pollution to soil and groundwater from manure application, the Company establishes a plan for manure application and utilization, and implements a system for recording manure treatment and utilization. They determine the timing and quantity of manure application based on the scale of livestock farming, the area of farmland, the type of farmland, and the growth of crops, using soil testing and formulation to determine the appropriate application. Additionally, soil monitoring is strengthened, and resource utilization plans are adjusted based on changes in indicators.

The Company employs agronomists to provide guidance to farmers on scientific planting and management practices to enhance the value of biogas slurry. During the harvest season, the farm organizes a "Celebrating Harvest Competition" to evaluate the performance of farmers in planting. Rewards are provided to farmers who demonstrate outstanding performance, motivating them to strengthen field management, improve soil environment, and reduce the use of chemical fertilizers.

Environmental Monitoring and Remediation

Every year, regular environmental monitoring is conducted on soil, groundwater, and surface water in and around each farm. This includes analyzing the current status and trends of environmental indicators and conducting risk warnings. In the event of abnormal indicators, prompt investigation of the source of the risk is conducted, and measures are taken to address it. This may involve upgrading sewage treatment processes, inspecting the effectiveness of sewage treatment facilities in preventing seepage, and implementing ecological restoration measures, etc. Continuous monitoring of changes in environmental quality is carried out to promote the healthy development of the ecosystem.

Harmless Disposal of Diseased & Dead Pigs

To standardize the disposal of diseased and dead pigs and prevent the spread of diseases, the Company adopts centralized harmless disposal methods such as high-temperature sterilization treatment, with one facility corresponding to each site or farm, and entrusts external harmless disposal plants for processing. An oversight information system for harmless disposal is established, equipped with vehicle-mounted monitoring during transportation, and video surveillance of processing facilities. Collection of diseased and dead pigs is strengthened, along with data statistics and information cross checking, ensuring that the entire process of collection, transportation, and disposal of diseased and dead pigs is controllable and traceable. By-products such as oil and fat are sold with directed sales, with supervision over the destination and use of each shipment.

Organize Environmental Protection Emergency Drills

The Company attaches great importance to emergency management for sudden environmental incidents and has formulated site-specific emergency plans for sudden environmental incidents. These plans have been filed with the local ecological and environmental department. A reporting mechanism and process for environmental incidents have been established, and training and drills for the plans are conducted quarterly. This effectively enhances the Company's emergency response and disposal capabilities for sudden environmental pollution incidents.

In addition, the Company has established comprehensive information systems in all farms to store environmental data at all times. It monitors environmental parameters in pig pens in real time, tracks trends in pollutant emissions through early warning systems, analyzes and summarizes environmental risk information, and ensures compliance with environmental regulations. This supports scientific environmental decision-making and helps reduce environmental risks.

Sustainable Agriculture

Muyuan is dedicated to exploring sustainable development models in the pig farming industry. The core concept of ecological cycling continuously improves resource utilization efficiency through technological innovation, improves resource utilization efficiency through technological innovation, promotes crop-livestock cycle, and utilizes manure resources, creating an ecological circular economy that features mutual benefits between pig farming and crop planting. This approach reduces the environmental impact of pig farming while achieving synchronous improvements in economic, ecological, and social benefits.

Resource Conservation

Land, air, and grain are essential resources for the development of the pig farming industry. Muyuan actively explores more efficient production methods to reduce resource consumption in pig production, achieve coordinated development between the economy and the resource environment, and enhance development resilience.

Land Conservation

Muyuan has innovated the production mode of the meat industry complex, utilizing multi-story farming buildings. This approach has increased land utilization efficiency by 4.3 times compared to traditional flat pig pens, resulting in significant land resource savings.

Reduce Air Consumption

We apply new air filtration in pig houses, promote the application of equipment of intelligent environment control and explore the application of minimal ventilation technology for pig herds, reducing air consumption per pig by two-thirds.

Save Grain

Promote low-soybean meal diets to reduce soybean consumption: In 2023, the Company's soybean meal usage decreased from 7.3% to 5.7%, and the livestock industry reduced from 14.5% to 13%. Promoting the industrialization of synthetic biology technology can further reduce soybean usage in pig farming by 20 million tons.

Intelligent feeding management to reduce feed waste: Developed an intelligent feeding system that implements daily formulation adjustments, providing precise and dynamic nutrition supply, thereby reducing feed wastage.

Improve pig farming efficiency and efficient grain conversion: Implementing a Sky Net project to advance disease elimination, enhance overall survival rates throughout the farming process, enabling more pigs to be raised with less feed; Implementing smart pig farming to achieve refined management, improving feed conversion rates, and producing higher quality pork with fewer grain resources.

Energy Saving

Fully utilize the roofs of pig pens to construct distributed photovoltaic power generation systems and replace fossil fuels with clean energy such as biogas power generation and biogas purification.

Crop-Livestock Cycle

A livestock farm is essentially a circular economy. Muyuan integrates efficient farming with agricultural development, promoting a circular economy model that combines "livestock-biogas slurry-green agriculture". By utilizing resources such as liquid fertilizer, and manure fertilizer in an appropriate manner and promoting ecological cycling that features mutual benefits between pig farming and crop planting, Muyuan achieves zero emissions from pig farming. Simultaneously, this approach promotes the reduction of chemical fertilizer usage, improves soil structure, enhances soil fertility, and increases soil carbon sequestration capacity, thereby facilitating increased productivity and income for farmers.



Yongji Muyuan Second Sub-farm

Establishing a specialized team of agronomists, we tailor research and development of crop resource utilization techniques to local conditions. Following the guidelines of Technical Guidelines for Calculating the Carrying Capacity of Livestock and Poultry Manure Land, and considering different soil fertility conditions, crop varieties, and yield goals, we apply scientifically determined amounts of treated manure to fertilize designated plots. As of now, we have developed resource utilization pathways for 39 crops, including sweet potatoes, Valencia oranges, lotus roots, water bamboo, and pineapples.



Around the farm, we have installed a support irrigation network spanning 26.8929 million meters, free of charge for farmers, to promote the substitution of biogas slurry for chemical fertilizers. Agronomists provide timely agricultural technology services and planting management training based on crop growth cycles. They conduct fertilizer surveys and monitor effectiveness, ensuring precise pest control and fertilization. This approach guarantees crop nutrient requirements are met while reducing chemical fertilizer usage, increasing crop yields, and boosting farmers' income. Additionally, on farmland where manure is applied, there's a noticeable increase in the populations of insects, frogs, waterfowl, and other organisms, contributing to biodiversity conservation.



2023 Annual Resource Utilization Performance is as follows:

Index	2023 Performance
Cumulative pipeline network laid to support agriculture (10,000 meters)	2,689.29
Farmland served (10,000 mu)	452.07
Manure fertilizer production (10,000 tons)	51.90
Chemical fertilizer substitution (10,000 tons)	14.68
Chemical fertilizer reduction in wheat season (kg/mu)	27.8
Increased wheat yield (kg/mu)	35.89
Reduced investment and increased income for wheat (yuan/mu)	181.73
Fertilizer reduction during corn season (kg/mu)	26.84
Corn yield increase (kg/mu)	31.83
Reduced investment and increased income for corn (yuan/mu)	170.54
Organic matter increase (%)	6.76
Reduced investment and increased income per mu (yuan)	352.27
Total investment reduction and income increase (100 million yuan)	14.82

Note: 1 mu \approx 0.067hm²

Ecological Restoration and Biodiversity Conservation

Muyuan actively engages in biodiversity management to protect the ecological environment and biodiversity in the areas where it operates.

Protection of Germplasm Resources

Nanyang Black Pig is one of the high-quality livestock breeds nationwide, and livestock breed resources are essential strategic resources for the sustainable development of animal husbandry in Henan Province. To protect local excellent pig breeds, the Company fully leverages its expertise in piglet breeding. It provides technical support to Neixiang Shunfa Nanyang Black Pig Protection Technology Co., Ltd. Through the Chenggang Nanyang Black Pig Breeding Protection Farm, it conducts hybrid breeding experiments, thereby increasing support for the preservation, technology, and research efforts related to Black Pig preservation. As of the end of 2023, there were 3,146 heads in stock, contributing to the protection of local excellent germplasm resources of Nanyang Black Pigs and the expansion of the Nanyang Black Pig population.

In March 2009, Nanyang Black Pig was listed in the Henan Province Livestock and Poultry Resources Protection Directory. In 2015, it was selected as a Chinese Geographic Indication, and in June 2020, it was included in the National Livestock and Poultry Genetic Resources Directory.

Ecological Environment Monitoring

We recognize that the pollution and changes in water quality and soil at the farms not only pose risks to our own operations but may also lead to a decline in biodiversity. The Company adheres to relevant laws and regulations, strictly conducting environmental assessments before project construction. We conduct comprehensive ecological impact assessments, including local vegetation, wildlife, and soil erosion, to avoid environmentally sensitive areas. After the completion of project construction and operation, we regularly conduct assessments and monitoring of groundwater, soil pollution, and agricultural product quality to ensure that our operations do not have a negative impact on the local ecology. We are committed to managing the entire life cycle of the project to minimize or eliminate the impact of production on the ecological environment. In 2023, we did not experience any events that harmed biodiversity.

The Company pledges not to carry out production and business activities within World Heritage Sites and any ecological redline prohibited development areas. We respect all internationally recognized protected areas, including those designated by the International Union for Conservation of Nature (IUCN) as Ia, Ib, II, III, IV, V, and VI protected areas.

Specific monitoring items, monitoring frequency, etc., are shown in the table below:

Monitoring Objectives	Monitoring Items	Monitoring Frequency	Monitoring Coverage Area
soil	pH, conductivity, organic matter, total nitrogen, alkaline nitrogen, available potassium, available phosphorus, mercury, arsenic, copper, zinc, lead, chromium, nickel, cadmium	2 times/year, every June, September	100% coverage of farms
groundwater	pH, ammonia nitrogen, permanganate index, total hardness, nitrate nitrogen, nitrite nitrogen, copper, zinc, total detection amount	2 times/year, every June, September	100% coverage of farms
Surface water	pH, conductivity, chemical oxygen demand (COD), permanganate index, ammonia nitrogen (NH ₃ -N), total nitrogen (TN), total phosphorus (TP)	1-4 times per year	Sampling is conducted based on the distribution of surface rivers

Monitoring Objectives	Monitoring Items	Monitoring Frequency	Monitoring Coverage Area
Agricultural products	Ash content, nitrogen, phosphorus, potassium, copper, zinc, sodium, bulk density	1-2 times per year	Random sampling

Soil Improvement

After the scientific treatment of livestock waste, it can provide sufficient organic matter and nutrients to the soil. The Company continuously explores soil improvement and governance models and technological paths, adapting them to local conditions to promote the transformation of saline-alkali land and desertification control. Through measures such as organic fertilizer application, the organic matter content of saline-alkali soil is increased, pH value is regulated, and the reproduction and activity of microorganisms in the soil are promoted. In 2023, the Company improved 229,500 mu (15,300hm²) of saline-alkali land and treated 88,200 mu (5,880 hm²) of desertification through biogas slurry application.

Improved area of saline-alkali land by biogas slurry application

229,500 mu

Area of desertification control

88,200 mu

Practice Achievements

Muyuan Expands the Demonstration Park for the Improvement of Saline-Alkali Land in Da'an, Jilin

The western region of Jilin Province is one of the world's three largest concentrated areas of soda saline-alkali land, where vegetation is sparse, the ecosystem is fragile, and productivity is low. Da'an Muyuan enters the fields, conducts soil testing, and utilizes liquid fertilizer and manure fertilizer application techniques. For four consecutive years, they have developed a circular economy that features mutual benefits between pig farming and crop planting to improve saline-alkali land. In collaboration with the Jilin Academy of Agricultural Sciences, the Company has researched the technology for improving saline-alkali land in western Jilin. They have selected salt-tolerant rice as the main crop for improvement and established the Da'an Saline-Alkali Land Improvement Demonstration Park, employing a model of improvement involving "liquid fertilizer + organic fertilizer + rice planting."

As of the end of 2023, a total of 1,240 mu (82.67 hm²) of saline-alkali land has been improved, transforming wasteland into arable fields. The yield per mu has increased from 200 kg to 425 kg, a reduction of 52.38% in soil salinity, and an increase of 66.67% in organic matter. At the same time, the Company has provided technical training for crop planting and production management to farmers, leading to the improvement of over 4,000 mu (266.67hm²) of saline-alkali land by surrounding farmers. This serves as a demonstration for the reclamation and improvement of saline-alkali land in western Jilin Province, achieving the goal of storing grain in the land and utilizing advanced agricultural techniques.

Improvement of saline-alkali land of

1,240 mu

A reduction in soil salinity of

52.38%

An increase in organic matter of

66.67%

Improved area of saline-alkali land nearby

4,000 mu+



Comparison before and after the Demonstration Park for the Improvement of Saline-Alkali Land in Da'an, Jilin



Heading stage



Filling stage

Practice Achievements

Naiman Muyuan carries out desertification control

Naiman Banner, Tongliao City, Inner Mongolia is one of the counties with severe desertification in the Horqin Sandy Land, with sand covering 62% of the total area of the banner. Naiman Muyuan has leveraged the advantage of organic waste resource utilization and explored deep land improvement to control desertification. Converting livestock and poultry manure into organic fertilizers and planting drought-resistant plants such as sea buckthorn and poplar trees, it has effectively restored the local ecological environment. By the end of 2023, a total of 14,000 mu (933.3 hm²) of desertification in Naiman Banner, Tongliao City, has been controlled.



JUNE, 2016



JUNE, 2023

Comparison before and after Naiman Muyuan's Desertification Control

Pragmatic Responsibility Assumption

Product Quality

Happy Employees

Sustainable Supply Chain

Community Development

Industry Sharing

SDGs referred to in this chapter



Product Quality

Food Safety and Quality

Muyuan adheres to the concept of high-quality development and the principle of "produce healthy foods for society to improve the life quality of the public, helping people enjoy an abundant life", firmly believing that "high-quality pork comes from pigs living a high-quality life", does a good job in safety and quality management from the source, laying a solid foundation for product quality and building a food safety ecosystem.

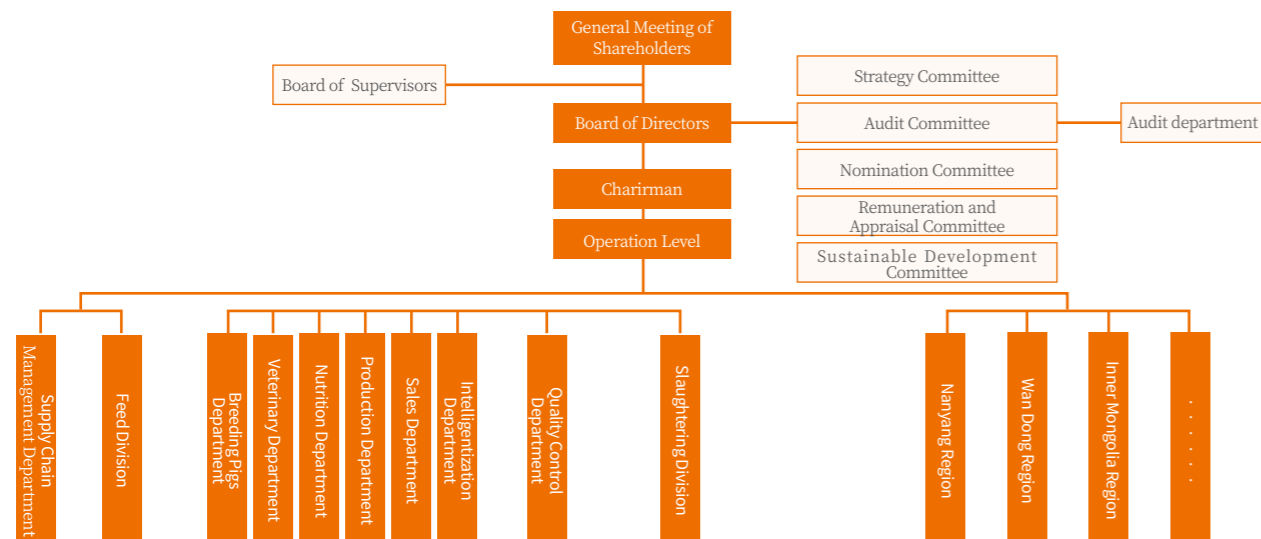
Muyuan has established a fully traceable system from the source to the end through intelligent and digitalized means. This ensures comprehensive quality and safety management and supervision across the entire industry chain, ensuring that every bite of pork we eat is safe. At Muyuan, pigs are fed with precisely formulated nutrition and are provided with ultrafiltered water. They breathe clean air filtered through four layers and reside in pigsties with regulated temperature and humidity throughout the year. Smart devices continuously monitor the health status of the pigs, promptly capturing and transmitting abnormal information to safeguard the well-being of the herd.

Management System

Muyuan strictly adheres to relevant laws and regulations, including *Food Safety Law of the PRC*, *Agricultural Product Quality and Safety Law of the PRC*, *Law of the People's Republic of China on Animal Disease Control*, *the Regulations on Swine Production Places Quarantine*, *the Regulations on Swine Production Places Quarantine*, *National Food Safety Standard-Maximum Residue Limits for Veterinary Drugs in Foods*, and *National Food Safety Standard-Maximum Residue Limits for Pesticides in Food*. Muyuan has formulated a series of regulations and requirements covering the entire process of food safety and quality management, such as *the Regulations on Food Safety and Quality Management*, *the All-Staff Supervision System for Food Safety and Quality*, and *the Food Safety Supervision and Management System*. It adheres to the principles of "put the precautions first, assess the risks comprehensively, transparent and traceable throughout the process," continuously improves the food safety and quality management system, and enhances the level of food safety and quality management.

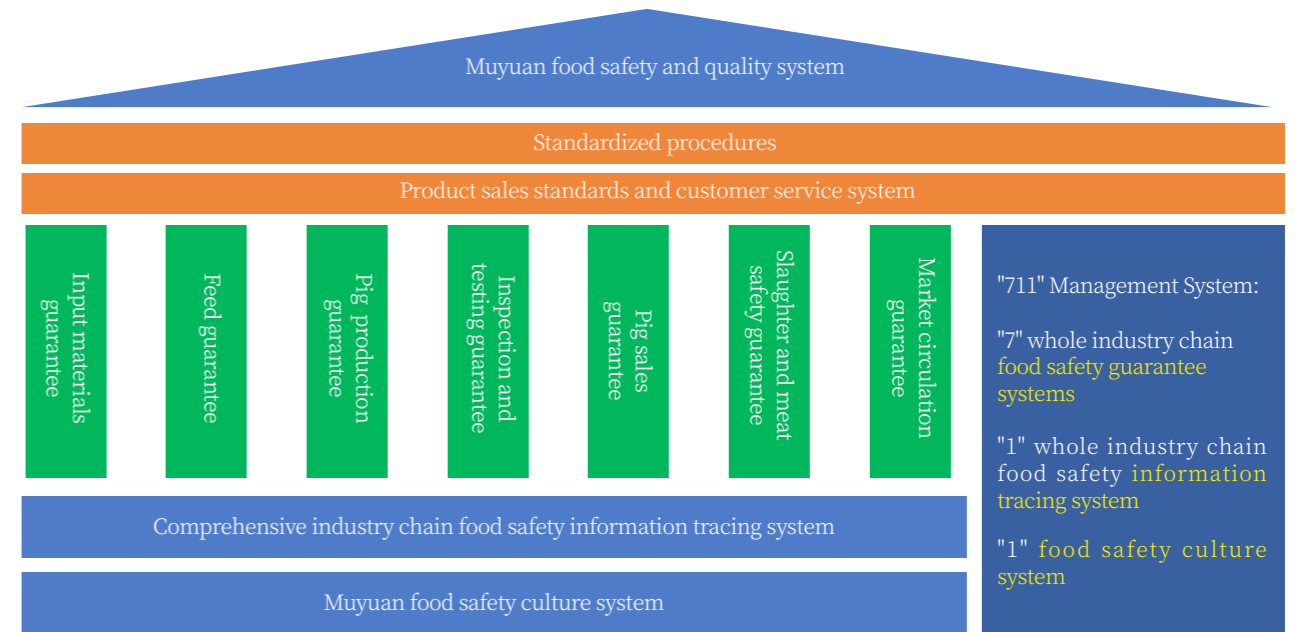
Management Structure

Muyuan has established a Sustainable Development Committee to decide and advance the management of food safety and quality. The committee organizes Quality Management Conferences monthly to analyze and evaluate the current status of quality and safety, so as to further formulate improvement plans. Three major divisions cover the entire business chain of food safety and quality management, requiring solid efforts from each department and promoting orderly progress. Regions, areas, farms and farm lines are the business entities who are responsible for implementing specific management work of food safety and quality.



"711" Whole Industry Chain Management System

We established "711" whole industry chain food safety and quality management system to oversee and manage the entire chain and life-cycle of our products.



"7" whole industry chain food safety guarantee systems

Muyuan has established a comprehensive food safety assurance system covering the entire process from input materials, feed, pig production, inspection and testing, pig sales, slaughter and meat to market circulation.

- Input materials guarantee**

The Company has established a multi-party control system involving quality control, veterinary, nutrition, and procurement, mainly focusing on the supplier management, pretesting, and daily sampling of veterinary drugs and vaccines, to strictly control quality and safety.
- Feed guarantee**

The Company comprehensively ensures feed quality by monitoring and managing raw material suppliers, as well as carrying out on-site, processing and finished product inspections.
- Pig Production guarantee**

The Company rigorously controls and manages drug residue, broken needle, disease, and good operational practices, etc.; upgrades the biosecurity prevention and control system; and establishes a standardized internal audit system for farming so as to improve the quality and safety levels.
- Inspection and testing guarantee**

The Company has a series of advantageous testing projects centered around food and agricultural product testing. It has obtained laboratory CMA qualification and CNAS accreditation, and is able to provide testing technology services in fields such as livestock and poultry products, animal feed, veterinary drugs, disinfectants, fruits, vegetables, beverages, etc. It also possesses comprehensive food safety testing verification from raw materials to finished products.

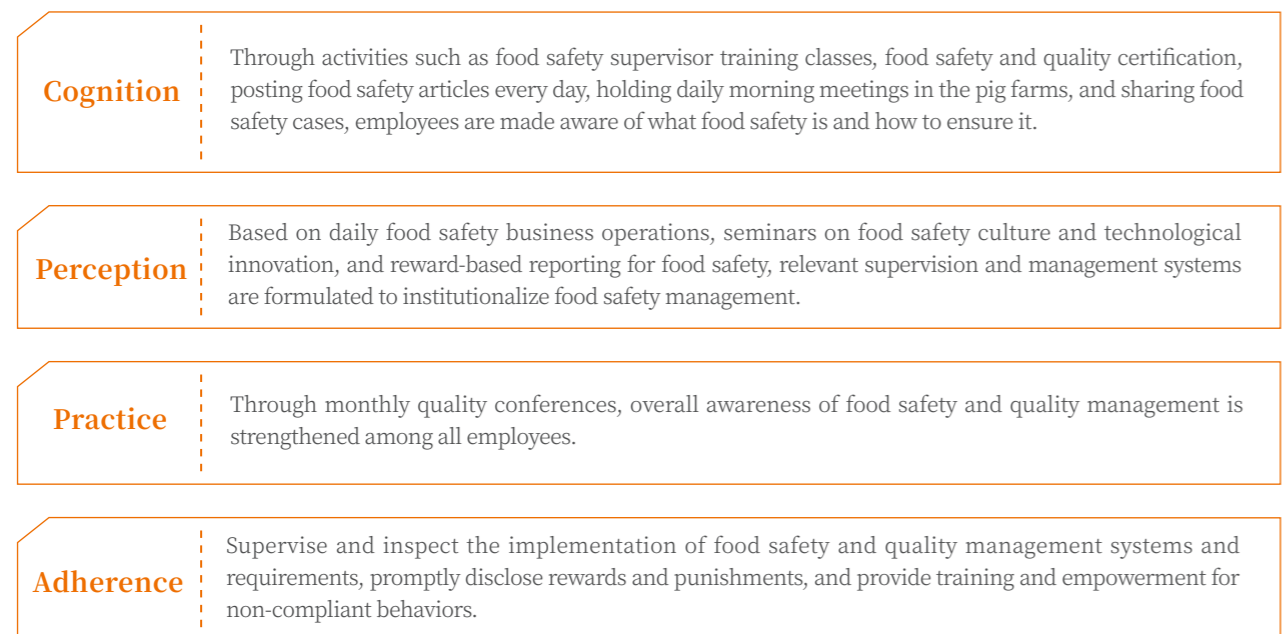


"1" whole industry chain food safety information tracing system

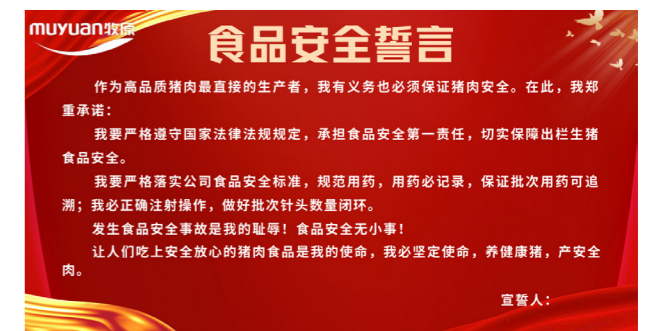
The Company has established a comprehensive food safety and quality big data tracing system for the entire industry chain. Through intelligent procurement systems, feed management systems, production management platforms, Hongxin detection systems, slaughter management systems, sales management systems, etc., it achieves precise data collection from the source to the end and intelligent platform management from the farm to the table, truly realizing the visibility, controllability, traceability of the whole industry chain, ensuring food safety and quality.

"1" food safety culture system

The Company practices the commitment of "guarding quality with life" and conducts food safety culture construction from four dimensions: cognition, perception, practice, and adherence, to enhance the food safety awareness of all employees.



Muyuan promotes food safety and quality culture through activities such as training sessions, Food Safety Week, and Food Safety Activities Month. In 2023, a total of over 1,450 food safety and quality training sessions were conducted, mainly targeting frontline management cadres, frontline staff, as well as production and operation core teams in regions of varying sizes. Additionally, the Company organized food safety pledges for employees at the site level and required them to sign *Food Safety Commitment* before receiving fattening pig batches, achieving 100% coverage.



Activities	Number of Participants
3.15 Food Safety Week	75,000
Food Safety Certification	108,000
Food Safety and Quality Morning Meetings in Pig Farms	39,000
Food Safety Training in Pig Farms	63,000

Quality is one of the core elements for the high-quality development of the pork industry. Muyuan adheres to the quality leadership strategy and actively establishes quality culture and quality pride. The Quality Control Department takes the lead in holding monthly quality management meetings. They organize core teams related to breeding, feed, nutrition, health, informatization, intelligentization, and pork slaughtering, engaging in extensive discussions and reviews regarding customer culture, customer demands, and quality improvement progress. They replicate and promote excellent practices, clarify work objectives, plans, and priorities, and propagate and implement various systems and standards from top to bottom. This enhances the Company's food safety management capabilities, ensuring the production and supply of safe and reliable pork products.

Food Safety Emergency Response Mechanism

Muyuan strictly adheres to the Company's *Food Safety Incident Response and Handling System*, standardizing the processing procedures for food safety risk events. Muyuan is able to respond promptly to risk events, primarily including response procedures for pre-slaughter urine sample testing non-compliance and post-slaughter organ testing non-compliance, etc. Additionally, it clarifies the responsibilities and assessment measures for sales and quality control positions at the breeding and slaughtering ends, enhancing awareness of food safety risks and capabilities to handle food safety incidents.

Product Recall

Muyuan strictly follows the management requirements for product recalls in accordance with the *Quality management systems Requirements(GB/T19001-2016)*, *Hazard Analysis and Critical Control Point (HACCP) Additional Requirements V1.0*, and *National Food Safety Standard Hygienic Specifications of Meat Packing Plant(GB12694-2016)*. It has established *Product Recall Control Procedures*, specifying first-level, second-level, and third-level recall management. The recall is initiated within 24, 48, or 72 hours after the Company becomes aware of food safety risks, and the recall plan is reported to local food and drug supervision and management departments at or above the county level. For example, in case of issues like product labeling or customers and consumers misleading, recalls are initiated after approval by the general manager,

and recall information is disseminated through effective news media and official channels. The Company organizes at least one simulated recall exercise annually to ensure efficient execution of product recalls in such scenarios.

In 2023, the Company improves the Product Recall Control Procedures and polishes some specific recalling solutions. For example, it included additional key personnel information to increase the efficiency of product recalls, enabling the recall process to be initiated within 2 hours. During the year, the Company conducted one simulated recall drill, and no actual product recall events occurred.

Market Management

Muyuan strictly implements market prohibition management based on *National Food Safety standard Fresh (Frozen) Livestock and Poultry Products (GB2707-2016)* and *Sampling Criterion for the Monitoring of Veterinary Drug Residues in Animals and Animal Products (NY/T 1897-2010)*. It has also established the *Muyuan Management Standards for Ex-factory Meat Products*, defining ten red lines for food safety. All products must pass batch sampling inspections conducted by the food safety testing laboratory before leaving the factory. Therefore, all outgoing products must obtain the testing reports for qualified products (including product factory inspection qualification form, African swine fever testing report, meat quality inspection certificate, delivery note, and quarantine qualification certificate). Non-compliant products are strictly prohibited from leaving the factory.

Muyuan has formulated and issued a *Notice on Stopping the Supply to Water-Injected and Glued Pork Merchants*, putting an end to cooperation with customers engaged in the sales of water-injected and glued pork. It strictly requires customers to prevent cross-contamination of products and promptly share information after market sampling inspections, jointly ensuring food safety in the circulation process.

As a leader in industry upgrading, Muyuan not only supplies high-quality pork to the public but also shoulders the industry's responsibility by firmly combating behaviors detrimental to food safety within the industry.

Customer Service

Muyuan always adheres to customer needs orientation with the tenet of "creating value for customers". We strive to establish a fair and just cooperative environment while continuously improving service standards.

The Company continually optimizes the methods it cooperates with pig producers, pioneering in the industry customer-driven pricing model, which involves zero intervention, zero bargains, and zero privileges, ensuring high quality and fair pricing. Through the Smart Sales APP, customers can open accounts, sign contracts, declare product requirements, view logistics orders, consult and provide feedback online. Muyuan promptly responds to inquiries and solve problems, creating a fair, transparent, and efficient trading environment to enhance transaction efficiency together with customers.

Customer Satisfaction

Muyuan commissions third parties to conduct customer satisfaction surveys, paying monthly field visits to distributors and slaughterhouse clients. Focusing on product quality and delivery services, the Company forms dedicated project teams to collect and analyze feedback data from upstream and downstream customers, providing more satisfactory products and services. In 2023, the overall customer satisfaction rate was close to 100%.

Muyuan establishes a complete complaint channel and strictly follows *Customer Complaint Management System* to handle customer complaints in accordance with regulations. Various communication channels, such as Smart Muyuan APP, the Director's mailbox, 400 customer complaint hotline, regional complaint hotlines, and dedicated business managers, ensure timely feedback and follow-up on complaints, continuously improving product and service levels. In 2023, Muyuan achieved a 100% response rate and timely resolving rate for customer complaints.

Customer Information Security and Privacy Protection

Muyuan places high importance on customer information security and privacy protection, strictly adhering to *Muyuan Information Confidentiality System*. All the data of the company is classified into five levels of confidentiality—top secret, confidential, secret, internally public, and completely public. Information leakage incidents are classified as major, severe, or general, with emergency response teams implementing corresponding emergency responses. The Company employs various information security protection measures such as Web Application Firewall(WAF), Situational Awareness (SA), antivirus software, strict access control policies, and encryption for sensitive data storage and transmission to strengthen customer information security and protection management. Additionally, regular information security training and emergency drills are conducted to enhance the information security awareness of all employees, ensuring the continuous development of company operations in a trustworthy and reliable environment.

In 2023, Muyuan did not experience any significant data breaches, major information security incidents, or customer privacy and data security-related complaints.

Management Certifications and Standards

Muyuan adheres to various domestic and international standards accredited by the Global Food Safety Initiative (GFSI) in feed, breeding, and slaughter. We actively participate in the revision or formulation of laws, regulations, and local standards such as *2024 Food Safety Sampling Plan of the State Administration for Market Regulation*, *Specifications of Feeding Management for Growing and Fattening Pigs in Intensive Pig Farms* and *Regulations on Disease Prevention and Control in Intensive Pig Farms*. This is aimed at establishing a modern company complying with good agricultural practices, strengthening food safety and quality management certification for suppliers, and ensuring the safety of pork supply from the source.

As of the end of 2023, the certification status of Muyuan and its suppliers in terms of food safety and management is as follows:

Certification Object	Sector	Certification Level	Certification Content
Muyuan	Feed	International	14 feed mills certified under FSSC22000 Food Safety Management System
		National	The First domestic full-chain digital certification of high-quality livestock and poultry products
	Breeding	International	5 breeding farms certified under GLOBAL G.A.P
		National	6 breeding farms obtained the qualification to supply live pigs from the mainland China to Hong Kong and Macao
		National	Neixiang Muyuan Modern Agricultural Complex Co., Ltd obtained China G.A.P. certification

Certification Object	Sector	Certification Level	Certification Content
Muyuan	Slaughter	International	10 slaughterhouses certified under ISO9001 Quality Management System
		International	2 slaughterhouses certified under ISO45001 Occupational Health and Safety Management System
		International	1 slaughterhouse certified under ISO50001 Energy Management System
		National	4 slaughterhouses certified under national standards for slaughterhouse construction
Muyuan Suppliers	Veterinary Drug Suppliers	International	GMP Certification
	Feed Additive Suppliers	International	1 supplier certified under BRC
		International	13 suppliers certified under FSSC22000
		National	3 suppliers certified under ChinaHACCP
		International	1 supplier certified under GAA

At the slaughter segment, food safety officers at each subsidiary of Muyuan Meat bi-monthly inspect its workshops based on the *Process Control Assessment System*. In 2023, a total of 240 on-site inspections were conducted at 10 slaughterhouses, covering 44,200 inspection items. After summarizing the inspection findings, semi-monthly process control inspection reports are publicly disclosed. Through self-inspection and self-correction, continuous improvement is achieved.

Animal Welfare

Muyuan advocates scientific pig farming, continuously improving both the concept and practice of animal welfare, and comprehensively enhancing the welfare level of pigs.

Animal Welfare Principles

Muyuan has established *Animal Welfare Policy and Guidelines*, *Muyuan Animal Welfare System*, and *Muyuan Animal Welfare Manual* to standardize animal welfare practices, clarify responsibilities and incentive mechanisms, effectively manage all aspects of the Company's animal welfare activities, and ensure the realization of animal welfare principles.

Muyuan regards Freedom from hunger and thirst, Freedom from discomfort, Freedom from pain, injury and disease, Freedom from fear and distress, and Freedom to express normal behavior as the core standards of animal welfare. It provides animal welfare commitments, focuses on the needs of pigs, and offers healthy diets, comfortable living environments, disease prevention, and meticulous care. The Quality Control Department supervises implementation, conducts regular reviews, and provides training to comprehensively safeguard and improve the welfare level of pigs.

- ▶ Committed to designing, maintaining, and using facilities that meet the comfort needs of pigs.
- ▶ Ensuring adequate access to drinking water and high quality feed for pigs, meeting their nutritional needs
- ▶ Complying with all applicable laws and regulations, treating pigs humanely, and promoting their well-being.
- ▶ Providing timely treatment and care to sick or injured pigs.
- ▶ Humanely euthanizing sick pigs that cannot be effectively cured.
- ▶ Actively responding to internal, external, and third-party welfare concerns, verifying and improving the Company's animal welfare practices.

Food Safety Review

External Reviews

In 2023, Muyuan's breeding and slaughter segments underwent a total of 305 government and customer reviews with a passing rate of 100%, including 38 external customer reviews, like Hormel, Metro, McDonald's, Yum and IKEA, etc. The pass rate for these reviews was 100%.

Internal Reviews

At the breeding segment, Muyuan conducts inspections of all breeding farms by farm and line quality control officers every other month, totaling 107,000 inspection items. After collation and analysis, the results are publicly disclosed in the form of monthly food safety self-inspection and self-correction reports, through which, continuous improvement is achieved.

Animal Welfare Practices

Muyuan guarantees the healthy growth of pig populations by conducting animal welfare practices according to relevant systems and principles. There are eight key practices, namely more comfortable environment, much safer and more nutritious feed, more comprehensive health management, more pleasant living conditions, antibiotic reduction and antibiotic-free pig farming(as detailed in P81-82), behavioral enrichment, more friendly transportation and slaughter, along with more empowerments and certifications.

More Comfortable Environment

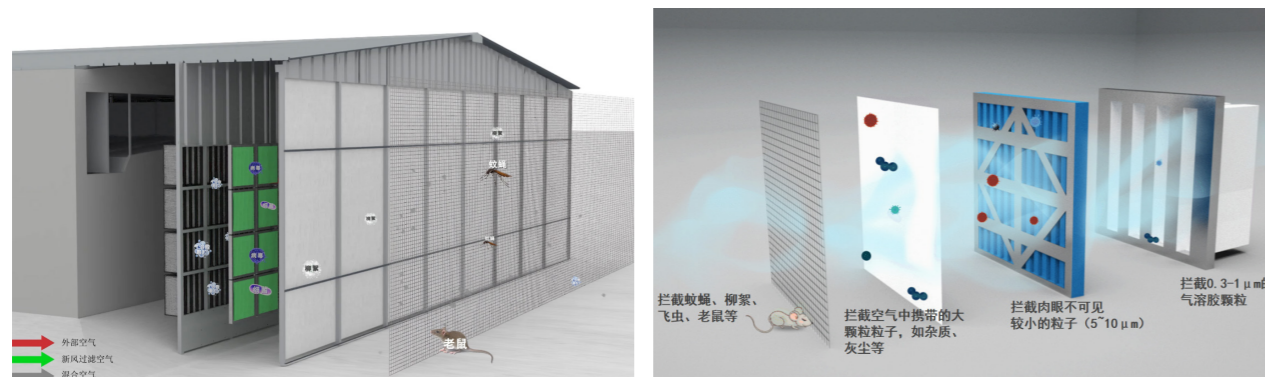
Muyuan regards the design of pig farms as a key aspect of ensuring animal welfare. It thoroughly considers factors such as scientific site selection and biosecurity. By utilizing heat-insulating materials, the pig pens are kept warm in winter and cool in summer, laying a solid foundation for the health of the pig population. To meet the pigs' need for fresh air, Muyuan innovates

traditional pig pens by adopting fully enclosed structures that integrate new air filtration, independent ventilation, and deodorization and sterilization systems. At the inlet, a four-layer filtration system is installed: the first layer consists of stainless steel protective mesh, primarily filtering disease-carrying organisms such as mosquitoes, flies, and rodents; the second layer comprises G2 filter cotton, effectively filtering visible dust, sand, and aerosol particles; the third layer is a pre-filter that blocks particles larger than 0.3 microns in the air; the fourth layer is a high-efficiency precision filter that effectively intercepts relatively small aerosol particles that are not easily captured. By employing this four-layer precision filtration system, the interception rate of viruses and bacteria such as African swine fever and novel coronavirus reaches 99.3%, ensuring that the air entering the pig pens reaches Grade M16, close to ICU air standards, thus safeguarding the health of the pig population. At the outlet, the odor emitted from the pig pens is intensively treated, achieving odorless emissions without causing disturbance to nearby communities.

Temperature Control: Muyuan develops and constantly optimizes temperature standards for pig pens to provide pigs with a better temperature experience. The standards are set and adjusted based on the temperature requirements of different stages of pig populations, while referring to those of China Association for Standardization(CAS) and GLOBAL G.A.P..

Humidity Control: Changes in humidity can cause symptoms such as coughing and poor appetite in pig populations. Muyuan uses spraying devices and monitors humidity in real-time with detectors to ensure that the pigs have a comfortable humidity environment at all times.

Ammonia Concentration: Ammonia concentration greatly affects the sensory experience of pigs. Based on the correction of sensory ammonia concentration, Muyuan refers to both farm animal welfare standards and GLOBAL G.A.P. standards for ammonia concentration and has established stricter ammonia control standards.



Four-layer filtration system

Much Safer and More Nutritious Feed

Muyuan develops multi-stage feed formulations to provide pigs with high-quality sterile feed, implements intelligent feeding, ensures a good feeding environment, and purifies water sources through ultrafiltration to provide clean drinking water.

Dynamic nutritional models are established based on breed, growth stage, season, etc., to ensure optimal nutrition for the pigs.

Feed production adopts high-temperature sterilization technology, with real-time online monitoring and intelligent control of sterilization temperature to ensure sterilization effectiveness. Feed transportation is fully enclosed to mitigate biosecurity risks and ensure feed safety.

Ultrafiltration equipment for water sources is installed in pig farms, with a pathogen removal rate of 99.99%, providing pigs with abundant, clean, and fresh drinking water, and blocking the transmission pathways of waterborne pathogens.

Water samples are regularly collected and tested by third-party organizations according to the GB5749-2006 standard to ensure water quality for the pigs.

The intelligent feeding system automatically collects information such as feed intake and water consumption, analyzes the health status of the pig population based on growth curves, and adjusts nutritional formulations accordingly. The automatic feeding system provides precise feeding, and the feed troughs are designed to allow multiple pigs to eat simultaneously, preventing injuries due to food competition and ensuring every pig is well-fed.

Sow feed is formulated according to colostrum intake, immune stimulation, healthy gut microbiota, as well as weight and vitality targets, to improve the quality of piglets and establish a foundation for health. Feed for weaning piglets is formulated with progression: from porridge-type feed to wet mash feed, to dry feed, to palatable feed, and finally to easily digestible feed, finally helping piglets have solid feed.



Ultrafiltration Equipment for Water Sources



Intelligent Feeders

More Comprehensive Health Management

Muyuan implements disease purification to by purifying infection sources, cutting off transmission pathways, and protecting susceptible pig populations, so as to ensure the health of the pig herds. The Company establishes a three-level health warning mechanism through intelligence and information-based approaches, equipping units with inspection robots with smart sensors such as cameras, microphones, thermal imagers, temperature and humidity sensors, etc., to collect data on pig images, videos, sounds, body surface temperatures, environmental temperatures, NH₃, CO₂, dust, etc., for timely monitoring of the pig population's status. Intelligent inspection equipment captures information about abnormal pigs on-site and sends it to skilled breeders and management cadres through the information system, facilitating timely care or treatment for abnormal pigs. The development of intelligent needle-free injectors not only ensures precise control of injection dosage to make good use of drugs and avoid the risk of cross-infection from traditional needles but also reduces the pain and stress response of pigs, thus improving their welfare.

Transmission sources: biosecurity (air filtration, end-washing rooms); inspection and testing; reducing or suppressing the types and quantities of pathogens.

Transmission pathways: environment control management (precise ventilation without cross-contamination), segregation of weak or susceptible pigs, disinfection.

Susceptible pig populations: protection of susceptible pigs through drug sensitivity screening and precise medication.

More Pleasant Living Conditions

Muyuan considers factors like pig quantity, age, weight, feeding space, and water space to design pens that meet animal welfare standards and utilizes intelligent environmental control systems to monitor pen conditions in real-time, ensuring a healthy and comfortable environment for pigs. Muyuan also sets stocking density standards according to farm animal welfare and GLOBALG.A.P. standards, ensuring ample space for each pig to lie down comfortably.

Electronic feeding stations: pigs can eat here precisely without any disturbance, and the activity space is enough at other time.

Pregnant sows: when the gestation age reaches 30 days and embryo implantation is ensured, free access activities are allowed.

Lactating sows: have access to tailored farrowing pens that allow free movement; equipped with hemp padding to meet residing and comfort needs (Farm No. 27 in Neixiang could meet the requirements, and have been improved after the cooperation with IKEA).

Nursing piglets: with guardian light boxes, warming boxes, warming pads and lights equipped in the nursing pens, piglets are nursed at optimal temperature; the absence of gestation crates (single sow pens) allows sows to move freely in and out of the pens, for eating and exercising.

Behavioral Enrichment

Muyuan employs welfare design and regulates human behavior to fulfill pigs' behavioral habits and treat them humanely.

Social needs of pig herds: the Company provides materials or toys that pigs can root, chew, and flip, allowing them to express their instincts freely. Each pig pen is kept separate to ensure pigs have numerous companions and fulfill their social needs.

Tail docking and castration of piglets: tail docking is performed on piglets older than 7 days, with timely iron supplementation and medication for any abnormal piglets post-operation, which turns out that infections are rare and piglets can completely recover after operation; Castration is carried out on piglets aged 3-5 days under the condition of disinfection before and after operation, so as to avoid any infection.

Supplemental feeding trays for piglets: additional feeding spaces are provided during the nursery period to prevent that some pigs are made weak because of crowdedness during feeding.

More Friendly Transportation and Slaughter

Muyuan mandates and implements the polishing of contact surfaces such as transport vehicles, loading ramps, and guardrails to prevent injury and reduce pain for pigs.

Muyuan adopts more reasonable loading and unloading operations and provides a superior pre-slaughter environment, implementing gas stunning techniques in all slaughterhouses to ensure pigs do not experience pain.

Unloading platforms: In place of sloped unloading bridges, Muyuan utilizes adjustable unloading platforms to prevent excessive stress on pigs and ensure the safety of unloading personnel.

Driving lanes: Designated personnel lanes ensure pigs are moved without injury or stress, maintaining meat quality. Those who herd pigs undergo animal welfare training and are subject to performance evaluations to ensure non-violence on the treatment of pigs.

Environmental requirements for resting pens: Rooms are fully enclosed and the exhaust air can be 95% odor-less through deodorization and filtration. Designed to meet farm standards, negative pressure ventilation maintains a temperature of 18° C and CO₂ concentration below 3,500 ppm, with a noise alarm system in place.

CO₂ stunning: optimal concentrations and stunning durations (CO₂ pit bottom concentration of 75%-85%, 115s-125s) are determined through assessment; 7-8 pigs per pen; the stunning is considered effective if pigs do not regain consciousness and exhibit no observable reactions after stunning and exsanguination, during which restraint, fright, or discomfort are prohibited to avoid stress among pigs.

More Empowerments and Certifications

Muyuan regularly conducts internal and third-party animal welfare empowerments and certifications (as detailed in the Food Safety and Quality Certification Standards, and Food Safety Inspection related content), continually elevating animal welfare practice standards.

Muyuan rigorously oversees the implementation and enforcement of animal welfare policies and standards. Every month, quality control officers conduct process control point inspections according to GLOBALG.A.P. standards. They inspect the implementation of animal welfare at the farms based on the *Checklist for Process Control of Pig Farms*, supervising and auditing on-site biosecurity prevention and control, pig feeding, micro-environment control of the units, antibiotic use, and environmental enrichment material use. They share and commend excellent practice cases and provide explanations and empowerments for non-compliant situations, working with management personnel to formulate improvement measures.

Simultaneously, the Company conducts daily training on epidemic prevention, health management, and micro-environment control, antibiotic use, and other animal welfare-related requirements to ensure the effective implementation of animal welfare standards.

Muyuan and IKEA: BetterPig Welfare Pork Programme

Muyuan collaborates with downstream customer IKEA on BetterPig Welfare Pork Programme, with registered farms making improvements according to IKEA's *Humane Farm Animal Welfare Standards (HFAC)*, further enhancing animal welfare practice standards. Muyuan shared its practices in animal welfare and case studies of BetterPig Welfare Pork Programme with IKEA at the Livestock Industry Sustainable Transformation Seminar held in November 2023. Through measures such as renovating pig pens and implementing more reasonable slaughter practices, this procurement project achieved a phased success, effectively elevating animal welfare standards. This project marks Muyuan's first endeavor in producing customized welfare pork products from breeding to slaughter, segmentation, sales, and premium pricing, establishing a dedicated traceability system and facilitating an order-based production model for welfare products.



Introduction to the IKEA BetterPig Welfare Pork Programme- Overall Introduction

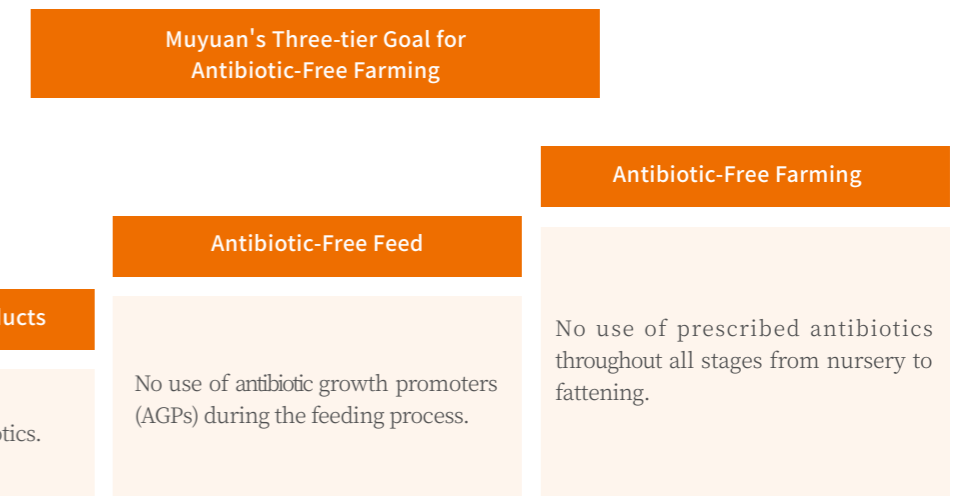
Participate in Animal Welfare Activities

In 2023, MUYUAN participated in the *Challenge Cup* animal health and welfare industry study tour organized by China Animal Health and Food Safety Alliance(CAFA), traveling to the UK for collaborative exchanges. The purpose of this study tour was to deepen understanding of the animal health and welfare industry in the UK, draw lessons from its experiences, and further promote the safety of animal-derived foods. Additionally, MUYUAN actively contributed to the development of the *Livestock and Poultry Welfare Farming Technology Guide Series* organized by CAFA, jointly advancing the development of animal welfare practice standards.



Antibiotic Reduction and Antibiotic-free Pig Farming Practices

Aimed to protect animal and human health, produce safe, nutritious, and antibiotic-free animal products, Antibiotic-free pig farming is the direction for sustainable development in the livestock industry. MUYUAN manages the entire chain of antibiotic production, operation, and usage, strictly regulating and controlling antibiotic use. We actively explore practices for reducing and eliminating antibiotics, devising medium to long-term plans, and systematically transitioning from antibiotic reduction to antibiotic-free pig farming.



Establish a Health System

Biosecurity: MUYUAN has upgraded its biosecurity prevention and control system, focusing on both internal and external controls. It has refined procedural standards concerning personnel, materials, and other aspects, assigning responsibilities, implementing supervision and assessment mechanisms to reduce the risk of disease transmission.

Disease Purification: MUYUAN has established purification pathways for 17 diseases. By the end of 2023, the purification rate for pseudorabies reached 99.95%, with breakthroughs achieved in diseases such as Betaarterivirus suid 1, Circovirus, Ileitis, Pasteurella and bronchiseptica purification. It has obtained 67 Disease-free Zone certifications and 148 farms have been selected as standardized demonstration farms for livestock and poultry farming.

Vaccine Immunization: MUYUAN actively promotes the evaluation of bacterial vaccines, designing and implementing immunization programs based on the health status of the pig population in the farms to enhance their resistance to bacterial diseases.

Progress in Antibiotic Reduction

To comprehensively improve the level of green and healthy breeding and promote the high-quality development of animal husbandry, MUYUAN steadily advances the action to reduce the use of veterinary antimicrobial drugs. MUYUAN's farms establish the concept of healthy breeding, prevention-oriented, and comprehensive management according to the characteristics of disease prevalence in the breeding process and the actual needs for prevention, diagnosis, and treatment. They enhance management systems, take control measures, ensure implementation, and improve feeding management and biosecurity protection levels from the aspects of "breeding, prevention, regulation, caution, and substitution", thereby promoting the achievement of the antibiotic reduction target in breeding.

○ Breeding

Develop scientifically balanced feed formulas tailored to the nutritional needs of pigs at different stages to ensure adequate nutrition and enhance individual resistance and herd health. Regular pathogen monitoring of pig herds is conducted to prevent the spread of pathogens vertically or horizontally.

○ **Prevention**

Implement strict biosecurity measures such as controlling personnel and material access, and actively carry out vaccination and disinfection in the pig farms to reduce the occurrence of viral and bacterial animal diseases at the source.

○ **Regulation**

Strictly adhere to regulations on the safe use of veterinary drugs, prohibiting the use of banned drugs and other compounds. Avoid adding growth-promoting antibiotics, human drugs, or counterfeit veterinary drugs to feed. Adhere to prescription drug and withdrawal period regulations, and use drugs according to labeling instructions for targeted treatment.

○ **Caution**

All clinical medication is prescribed by licensed veterinarians, selecting drugs with strong sensitivity and good efficacy based on sampling, pathogen detection, and drug sensitivity testing results. Avoid using multiple antibiotics simultaneously if one can effectively treat the condition. Prioritize the use of lower-grade antibiotics and promote precise individual treatment to achieve "medication reduction" goals.

○ **Substitution**

In 2023, Muyuan actively explores green veterinary drugs with no residues such as traditional Chinese animal medicine and probiotics to replace some veterinary antibiotics. By the end of 2023, probiotic replacements for antibiotics covered 272 farms, effectively reducing the use of aminoglycoside drugs.

Happy Employees

Respect and Protect Employees

Muyuan strictly abides by the *Labor Law of the People's Republic of China*, *Labor Contract Law of the People's Republic of China* and other relevant laws and regulations, and consistently upholds the principles of equality and non-discrimination in employment, treating employees of different genders, regions, races, and religious beliefs fairly and impartially. We promote the construction of a diversified workforce, respect and safeguard the rights and interests of employees, and ensure their occupational health and safety, making every effort to build harmonious, stable, and healthy labor relations.

Employment Compliance

Muyuan continuously enhances its human resources management system by establishing various regulations such as *Labor Contract Management Measures*, *Personnel Management System*, *Leave Management System*, *Attendance Management System*, *Comprehensive Compensation Management System*, and *Reserve Cadre Management System*. These regulations standardize the management of recruitment, promotion, compensation, and employee benefits, effectively safeguarding the rights and interests of employees, addressing their concerns, and enhancing their sense of access to human rights protection, happiness, and security.

Muyuan strictly follows the *Provisions on Prohibition of Child Labor* and other related laws and regulations, prohibits any subsidiary from recruiting minors under the age of 16 and continuously improves the pre-employment information review

mechanism to avoid the use of child labor. In 2023, the Company did not have any incidents involving the employment of child labor or forced labor.

Muyuan follows the principles of "equality, voluntariness, and mutual agreement" when signing written labor contracts with employees. The contract texts are approved or supervised by local labor departments and include provisions on contract term, job description and location, working hours, rest and vacation, remuneration, labor protection, and occupational hazard prevention, meeting the requirements of essential clauses stipulated by labor contract regulations. Additionally, the Company strictly adheres to legal working hours, and overtime work is strictly regulated through an application process that requires approval before overtime can be conducted.

Campus Recruitment

Muyuan has established cooperative relationships with over 80 universities and colleges, conducting more than 200 campus recruitment activities. These recruitment sessions cover various specialties including pig production, veterinary, meat processing, intelligent technology, and feed production, actively recruiting talents from different disciplines and majors. The Company also organizes special recruitment events for overseas students to attract outstanding international talents. All these recruitments are aimed to build a young, international, and professional talent pool to empower pig farming with intelligence and technology.

Cooperative Campuses	Conduct Campus Recruitment
Over 80	Over 200

Care for Employee Development

Diverse Learning Platforms

Muyuan, aligning with its corporate development strategy, has optimized its talent development system to ensure that every employee receives systematic and targeted training. Leveraging various aspects such as corporate culture, vision management, goal management, operational management, and professional skills, etc. Muyuan provides comprehensive empowerment and training mechanisms. These mechanisms offer professional and diverse learning platforms and resources to cultivate versatile talents, thereby facilitating employee growth.

In 2023, Muyuan invested 700 million yuan in vocational training, with an average training duration of 148 hours per employee, continuously enhancing labor skills and competitiveness.

Corporate Culture Training

Tailored corporate culture training sessions are conducted based on different personnel and business scenarios. Training themes primarily cover values, life perspectives, goal management, integrity, self-discipline, responsibility, and self-navigation, etc.

Ought to Know Empowerment

During the probation period, employees receive empowerment and certification in concerning the Company's basic rules and regulations, basic professional competencies, and fundamental job-related qualities, to gain fundamental professionalism.

Business Knowledge Training

Muyuan strengthens the cultivation of technical talent pools, emphasizing safety training and basic skills training for front-line employees. This initiative aims to enhance employees' business knowledge and professional skills.

Five Mutual Learning Mechanisms

The Company promotes learning and growth among participants through mutual assistance, mutual learning, mutual evaluation, mutual examination, and mutual correction, enabling them to acquire new knowledge and master the standards and techniques necessary for work implementation.

Online Learning Platform

The Company has established online intelligent learning platforms such as "Smart Mumu", "Pig Assistant Xiaowei" and "Production Xiaozhi" to disseminate the latest technology, business, and management information tailored to specific job positions, enabling individuals to access knowledge anytime, anywhere, enhancing learning efficiency.



Corporate Culture Training

Comprehensive Mentorship Training Mechanism

Muyuan implements a comprehensive master-apprentice mechanism at all levels, empowering every employee. Upon joining the Company, each new employee is paired with a senior staff member who serves as their mentor, providing training and guidance to help them quickly adapt to the Company's working environment and job requirements.

Apprenticeship Ceremony

Upholding the principle of Allow successors to stand on my shoulders to make their life better, the Company held the 15th Ceremony of Apprenticeship in 2023, matching each new employee with an outstanding mentor characterized by integrity, skillfulness, and rich experience. These mentors are tasked with providing assistance and guidance to their apprentices in both work and life, helping them adapt to the work environment, master job skills, and quickly excel in their positions, thereby growing into outstanding talents. The apprentices shoulder the mission, seek advice with humility, emulate their mentors, stay focused on their goals, and achieve outstanding results. As of now, Muyuan has successfully matched 30,000 mentors with 99,000 apprentices, fostering mutual growth.



The group photo of the 15th Ceremony of Apprenticeship

Comprehensive Talent Selection Mechanism

Muyuan develops leadership standards and utilizes talent evaluation mechanisms to identify and deploy elite talents. We implement precise empowerment for individuals in talent pools and provide newly appointed leaders with training for transitioning into new roles, matching them with mentors. This process includes talent selection, taking up positions, position transitioning and value creation.

Talent Incentives

Muyuan shares the fruits of development with its employees under the incentive principles that: rewards will go to anyone who creates value; whoever creates value first will be rewarded first; those who create more value will get more rewards."It adheres to the principles of distribution according to work and result orientation, ensuring that employees' contributions are proportionate to their rewards. The Company employs professional salary management personnel to ensure that employees in different positions can share the Company's profits. It implements a comprehensive salary system, carries out targeted hierarchical management, clarifies the salary system and establishes reasonable salary structures and proportions aligning with its corporate strategy, business strategy, and human resources strategy. Based on job value, skill levels, performance contributions, etc., a multi-dimensional and multi-level salary distribution system is constructed, covering basic salary, position wages, performance wages, performance bonuses, and equity incentives. Employees can obtain comprehensive compensation through outstanding salaries, equity allocation, promotion, learning and development opportunities, honors, and benefits, etc. As of the end of 2023, Muyuan has implemented three employee shareholding plans and three restricted stock incentive plans, with a total of 12,136 individuals holding shares. In 2023, the average annual salary of Muyuan employees was 110,000 yuan.

Comprehensive Compensation							
Explicit Compensation				Implicit Compensation		Honor	
Outstanding Compensation	Equity Incentives	Benefits	Learning Opportunities	Promotion	Trust and Utilization	Honor	
Salary	Performance Rewards	Loyalty + Performance Equity Allocation Equity Incentives	Commercial Insurance Housing Benefits Holiday Gifts Catering Subsidies	Learning: Industry Exchange, Study Tours, Training Opportunities: Participation in Key Projects	Experience Opportunities, Appointment System, Promotion Across Generations	Encouragement and Recognition, Selection and Deployment	Commendation, Honor, Titles
Technical Allowance	Positional Allowance	Group Profit Award	Performance Award for Business Management	Individual Innovation Award			

Muyuan's Compensation and Benefits System

Diversified Career Development Opportunities

Muyuan values employees' comprehensive development and is committed to creating a scientific, transparent, and diversified career development path for them. The Company continuously optimizes the construction of talent development channels, broadening both horizontal and vertical growth paths. It links promotion channels with job qualifications, clearly defines post rank requirements, and takes into account employees' personal qualities, professional abilities, individual preferences, and performance achievements comprehensively. Muyuan aims to cultivate outstanding leaders, ensuring that each individual's talents are fully utilized in their roles.

Promotion channel		
Vice President		
Chief Officer / Division Manager		
Regional Production Director	Director	Senior Engineer (Principal Level)
Production Director	Senior Supervisor	Senior Engineer
Farm Manager	Supervisor	Engineer
Section Manager		Assistant Engineer

Muyuan Career Promotion Path

Employee Care

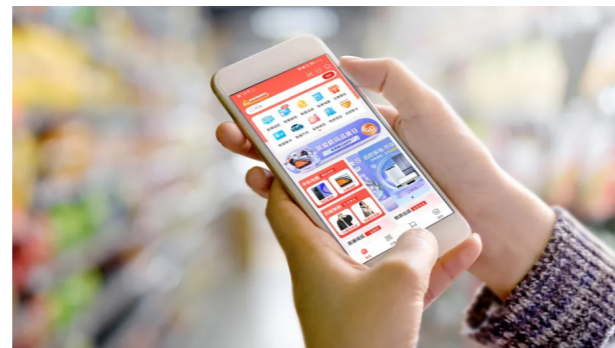
Muyuan always regards employees as family members. In accordance with the requirements of the *Labor Contract Law of the People's Republic of China* and relevant laws and regulations, the Company signs labor contracts with employees and contributes to social insurance and housing provident fund. Besides ensuring employees' basic rights and benefits, Muyuan places great importance on employee care, continuously striving to create a comfortable working and living environment and providing excellent welfare benefits.

HR Assistant Welfare Platform Enables One-click Access to Benefits

Muyuan established a full-scene HR Assistant Welfare Platform, identify employee needs, streamline the process of enjoying benefits, and enhance overall employee satisfaction. The welfare platform comprises 8 main sections: Insurance Benefits, Talent Benefits, Workwear Benefits, Dining Benefits, Housing Benefits, Travel Benefits, Health Benefits, and Family Benefits.

Ju'ai Platform enables employees to enjoy high-quality living

Building Ju'ai Services Platform, continuously optimizing and improving to meet market standards. Starting from clothing, food, housing, transportation, education, utilities, health, relationships, entertainment, and finance, the platform provides employees with a comprehensive life platform. It aims to empower employees to enjoy high-quality life, enhancing their sense of happiness and belonging from multiple dimensions and perspectives.



Ju' ai APP

Mother-Child Platform Creates Happy Families

Muyuan adheres to the philosophy of "making every family and every child happy" and establishes Mother-Child platform. This platform provides children with opportunities for learning and growth, broadening their horizons, enhancing their learning, thinking, and mental models, instilling correct values, and fostering a positive and upward life attitude for happy and healthy development. Parents can exchange ideas, share educational philosophies and methods, learn together and make progress together with their children, and serve as role models. In Muyuan, they can build a brilliant future and enjoy a fulfilling life.

Winter/Summer Vacation/Holidays/Weekends				
Headquarters/ Regional Mother-Child Conference	Winter/Summer Study Camp	Gifts for Employees' Children	Parent-Child Sports	Bright Children Recommendations
Dual Excellence Family Selection	Interest Classes for Employees' Children	Muyuan Family Open Day	Workplace Experience for Employees' Children	Social Practice Activities for Employees' Children
Annual				
Enrollment of Employees' Children	Scholarships for Employees' Children	Promotion of Outstanding Academic Achievements	Guidance Lectures on College Application	

Daily	
Family Education Lecture Series	Childcare Services for Employees' Children

Mother-Child Conference

On August 15, 2023, Muyuan hosted the 36th Mother-Child Conference, themed "Advancing Together, Expressing New Thoughts." Children sang and danced on the stage, showing and breakthrough themselves. Parents shared outstanding educational philosophies and methods, deepening mutual understanding and foster mutual care, growth and improvement with children.



The group photo of the 36th Mother-Child Conference

Family Open Day

Families serve as the backbone of our employees, and Muyuan's steady development relies on the strong support and dedication of each employee's family. Muyuan organizes Family Open Days, inviting employees' families to visit Muyuan, tour the industrial chain, learn about Muyuan's culture, experience employees' work, and enhance the sense of belonging and pride among employees' families.



The Group Photo of the Family Open Day Event

Childcare Services for Employees' Children

Muyuan integrates outstanding educational resources to provide childcare services and a variety of extracurricular hobby classes, enriching the life of employees' children. These activities aim to cultivate hobbies, broaden horizons, and facilitate continuous self-improvement and joyful growth.



Ju'ai Childcare



Hobby Classes

Study Tours

Muyuan organizes 1-day camps, summer/winter camps, domestic tours, and international tours, enabling children to venture out into the world, explore new things, experience and learn, broaden horizons, and enhance cognition.



Study Tours

Cultural Activities Make Employees Happy at Work

To enrich employees' life, practice and promote Muyuan culture, and foster a happy work and life environment, we have implemented a variety of cultural activities.

National Day Gala	Sports Day	Spring Team Building
Dumpling Making Activity for the Winter Solstice	Qixi Festival Gathering	Spring Festival Reunion Activities

National Day Gala

On the eve of National Day, all Muyuan staff gathered both online and offline, presenting various performances such as dance, song medleys, and skits. Through these performances, Muyuan's corporate culture and management philosophy were conveyed, showcasing the Company's commitment to technological innovation, continuous value creation, and the spirit of shouldering social responsibility. It was also an expression of love for the motherland and the most sincere blessings for the country.



The Group Photo of the National Day Gala in 2023

Sports Day

To enrich employees' life and enhance their physical fitness, the Company organizes sports days annually. This fosters integration among departments, strengthens team cohesion, and cultivates a culture of physical fitness, allowing employees to enjoy both work and life happily.



The Group Photo of the Sports Day Event in 2023

Labor Union Resolves Employees' Concerns

Employee Health Care

Health Activities

Muyuan organizes healthcare services in collaboration with medical institutions to conduct various healthcare activities such as special check-ups for employees' recovering from COVID-19, oral health consultations, and free diagnoses for female employees on Women's Day etc.

Disease Prevention

Muyuan ensures employee health, by organizing vaccination activities for influenza, pneumonia, COVID-19, HPV, etc. In 2023, we served 327 individuals to prevent the occurrence of diseases.

Health Education

Muyuan promotes health knowledge to enhance employee health awareness. In 2023, a total of 69 health education articles were published.

Employee Physical Examinations

Muyuan pays great attention to employee health by organizing health check-up activities for both employees and management cadres. In 2023, we arranged health check-ups for 108,000 individuals, aiming to enhance employee health awareness and cognition, and safeguard employee health.

Commercial Insurance

The Company provides comprehensive insurance plans for employees and their families, covering accidental death, supplementary medical care for hospitalization, 36 major illnesses, and death due to illness. The total coverage amounts to 500,000 yuan, and the premium can be paid monthly or annually. This helps more employees understand the functions and usage of different types of insurance, and employee satisfaction evaluations are conducted to ensure that the services meet employee needs, safeguarding the happiness of employees and their families.

Implementation of the 2023 insurance plan:

Number of service instances	Number of claims	Amount of claims
710,000	556	4.51 million yuan

Care for Retired Employees

Retired Employees

Muyuan pays great attention to the family situation of retired employees, providing care and assistance to those in need. During the Spring Festival, we organized reunion activities and presenting New Year gifts to retired employees. In these activities, retired employees gathered together, visited the headquarters and the Company's industrial chain, celebrated the New Year together, and talked about future prospects, enhancing employees' sense of honor and belonging.

Assistance for Employees in Need

Muyuan conducts long-term surveys on employee support and assistance efforts, enhances the study of compliance management policies for employee welfare and assistance funds, and continuously improves the mechanism for care, assistance, and relief work. The Company aims to provide targeted assistance to employees and their families in need, ensuring that assistance is provided where it is truly needed. This helps employees overcome difficulties in a timely manner and feel the care of the Company. The Company's labor union organizes regular activities to provide warmth, increasing the breadth and depth of condolences.

Implementation of the employee assistance plan in 2023:

Number of Assistance Instances	Amount of care and assistance
2,155	60.258 million yuan

Care for Female Employees

In terms of women's development, Muyuan prioritizes gender equality and supports the development of women. By the end of 2023, there were over 28,000 female employees at Muyuan, with women accounting for 26% of the senior management positions. Among managerial positions, there were 1,786 women, accounting for 16.5%. Additionally, Muyuan adheres to national legal requirements by providing maternity leave and paternity leave for employees.

In terms of women's protection, the Company prioritizes and strengthens the labor protection of female employees during the production process, values the working environment for female employees, and continuously improves their working conditions.

The Company organizes health check-up activities and health consultations and diagnoses specifically for women, and extends health and blessings to all female employees on Women's Day. Additionally, the Company actively implements regulations on maternity leave and breastfeeding leave, as well as regular health check-up systems during pregnancy and lactation, paying attention to the physical and mental health of female employees.



Employee Communication and Feedback

Muyuan has established and continuously improved regulations and systems for collective negotiation, staff congresses, and labor union management. It has formulated plans for democratic management to ensure employees' rights to information, participation, and supervision, among other legal rights and interests. The Company encourages employees to actively participate in enterprise democratic management, allowing each employee to contribute to the Company's development.

The staff representative congress is one of the important channels for communication between the Company and its employees. Muyuan has clearly defined the basic principles, power scope, and organizational procedures for the construction of the staff representative congress. It has established and improved the system of staff directors and staff supervisors, laying the foundation for staff representatives to perform their duties in accordance with the law and participate in corporate governance orderly.

To further strengthen democratic management, Muyuan regularly organizes staff representatives to propose solutions to issues related to enterprise management, salary distribution, employee education, and welfare. The relevant departments collect and provide feedback on these proposals, establishing a closed-loop feedback mechanism for proposal handling. Muyuan ensures that staff representatives receive timely written feedback on proposals that are not accepted, along with explanations for the decision.

Muyuan actively organizes and conducts collective negotiation to strengthen communication between the labor union and employees in order to listen to employees' actual needs. To ensure that employees' rights and interests are properly protected, the Company has set up anonymous and real-name feedback forms.

The Real-name Employee Feedback Channel			
HR Assistant	Smart Mumu	Labor Union Hotline	HR Hotline
AI Assistant	Salary Appeal Channel	Audit Channel	

Employee Anonymous Feedback Channel	
Complaint Reporting Email	Exclusive Complaint Hotline

The Company processes reports anonymously according to the reporter's wishes, protecting their information and allowing them to provide genuine feedback without concerns. The feedback may include, but is not limited to issues related to salary, benefits, dining services, system operations, personnel transfers, etc., effectively safeguarding employees' basic rights and interests. All reports are handled and feedback is provided.

Protect Employees' Safety

Safety Management System

Muyuan strictly adheres to relevant laws and regulations such as *the Work Safety Law*, *the Fire Control Law*, and *the Emergency Response Law*. It considers safe production operations as the foundation of the Company's development. Muyuan conducts rigorous inspections and assessments, abides by safety standards, strengthens safety protocols, fortifies safety defenses, and continuously improves the construction of its safety management system.

Safety Management Philosophy

To excel in safety production, it's essential to adhere to correct principles. Muyuan has formulated eight key safety management principles tailored to its enterprise characteristics, benchmarking against excellent companies. These principles guide the Company's safety management direction and lay the foundation for its sustainable safety development.

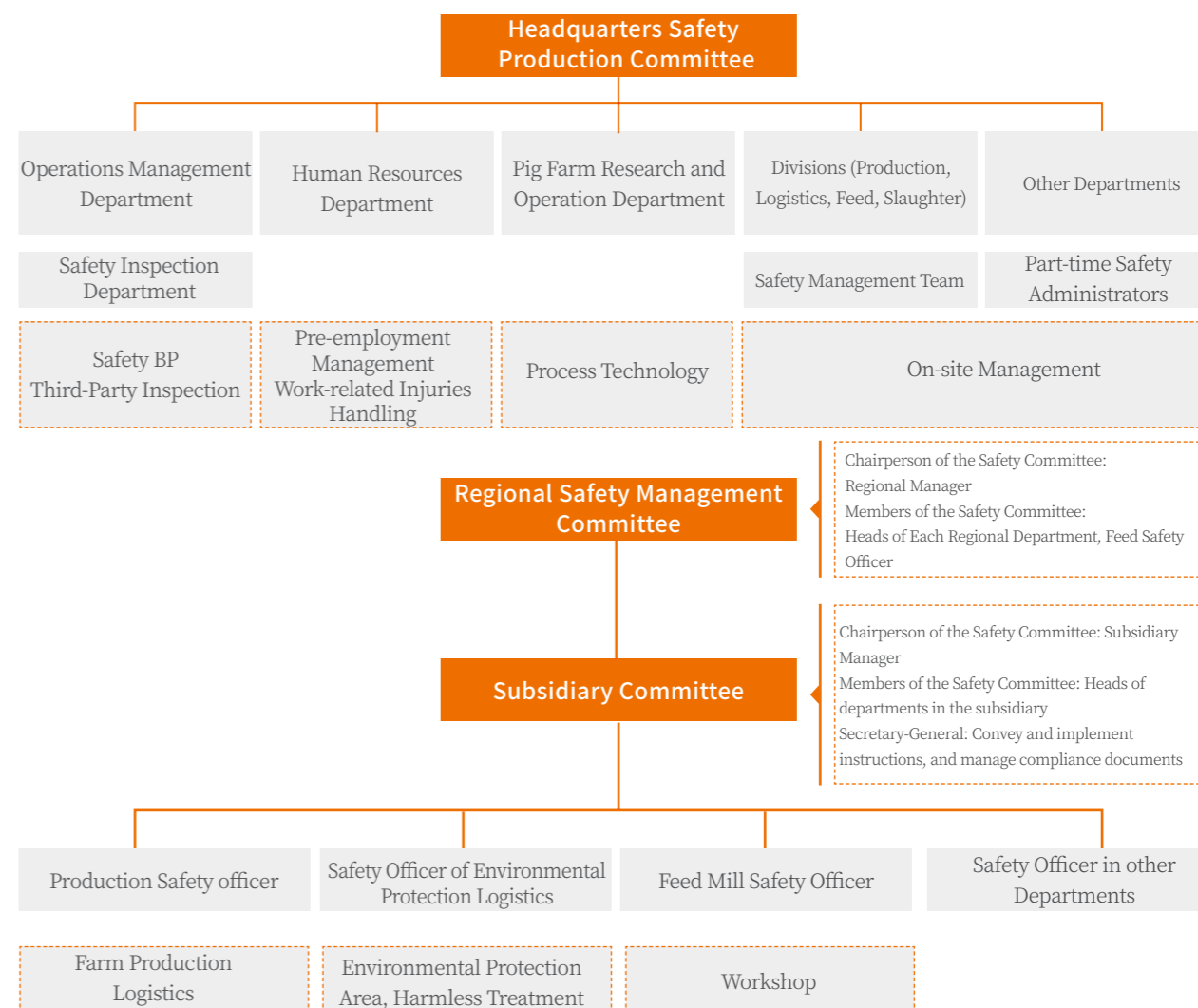
- ▶ Safety can be achieved with a good management. All safety accidents can be prevented, and all safety hazards can be controlled.
- ▶ Safety stems from design, quality, responsibility, and capability.
- ▶ Zero tolerance for any violations.
- ▶ Managers at all levels are directly responsible for safety within their scope of business.
- ▶ Safety requires the participation of all employees, and adherence to comprehensive safety management throughout the entire process.
- ▶ Employees must undergo rigorous safety training before starting their job.
- ▶ Management cadres at all levels must conduct safety inspections, and any hazards discovered must be rectified promptly.
- ▶ All accidents must be reported, analyzed, and addressed promptly.

Safety Management Principles

<p>Strengthen the responsibility for safety production</p> <p>Each department is the primary responsible entity of safety management, and managing operations must include managing safety.</p>	<p>Eliminate hazards at the source of the process</p> <p>Consolidate the safety production responsibilities of each department, eliminate hazards from the source of the process, prevent accidents, and achieve intrinsic safety.</p>	<p>Third-party safety inspection</p> <p>Strengthen management and assessment to achieve a closed-loop safety management system.</p>
--	---	--

Safety Management Organizational Structure

We have established a three-level safety management structure of "headquarter-region-subsiary" and formulated *Assessment Standards for Violations and Hazards*. Specific safety performance indicators were set up, linking safety with compensation. Everyone is a safety officer, and the implementation of the full-staff safety production responsibility system.



Identification and Prevention of Safety Risks

Muyuan is committed to creating a healthy and safe working environment for its employees. In 2023, the total investment in safety production amounted to 198.25 million yuan, comprehensively advancing safety production and occupational health management to ensure controllable risks and a sustained and stable safety situation.

The Company continuously strengthens risk prevention and control, building a dual prevention mechanism which includes the safety risk classification and control mechanism and the hidden danger investigation and governance mechanism. It regularly organizes special safety inspections for each business line and department to eliminate safety weak links.

An Overview of Safety Risks in Workplace Operations is produced to control hazardous operations. Measures such as online approval before, during, and after operations, offline supervision, and video monitoring are implemented. Safety risk management for contractors throughout the entire cycle and important risk prevention and control content for extreme weather are also emphasized.

Furthermore, special efforts are made for confined space operations, including process technology upgrades, protection equipment upgrades, and electrical process safety optimizations, to continuously reduce inherent safety risks and enhance intrinsic safety levels.



区域风险告知卡		
风险点名称	单元/区域	危险因素
可能造成的危害	中毒和窒息、摔伤	中毒和窒息：1、网底积聚有氨气和硫化氢等有毒有害气体；2、网底空间未设置强制通风、置换空气；
风险等级	重大风险	2、环控模式未设置未刷圈模式；
管理部门	场区段组	3、进入前未进行气体检测；
管理责任人	饲养员、刷圈工	4、单人作业，未进行报备审批；
联系电话		5、未有劳动保护措施；
安全控制措施		
中毒和窒息： 1、作业前通知段长和场长进行作业审批，同时在作业群内 进行 报备；2、环控模式设置未刷圈模式，作业前通知以上；3、严禁单人作业，作业时设置监护人；4、进入前进行气体检测，硫化氢浓度低于6.6ppm，氨气浓度低于20ppm；5、佩戴合格的劳动防护用品。		
摔伤： 1、及时更换维修坏的漏粪板卡扣；2、刷圈时人员集中注意力，注意脚下。		
应急措施： 中毒和窒息：事故发生后，通知现场工作人员在保证安全的情况下将伤员救出；伤员有骨折、关节伤、肢体挤压伤、大创伤时，要采取固定措施；伤势严重时，应立即拨打120急救电话，送医救护。		
安全警示标志：		
火警电话 119		急救电话 120

Safety Emergency Management

Muyuan has established an emergency management organizational structure for safety production and formulated special emergency plans such as *Emergency Plan for Water Cutoff Accidents in Pig Farms*, *Emergency Plan for Fire Accidents in Multi-story Pig Buildings*, and *Emergency Plan for Power Outages*. It has also equipped emergency supplies, strengthened emergency drills, and enhanced the Company's ability to respond to sudden safety incidents and control safety risks.

Occupational Health Management

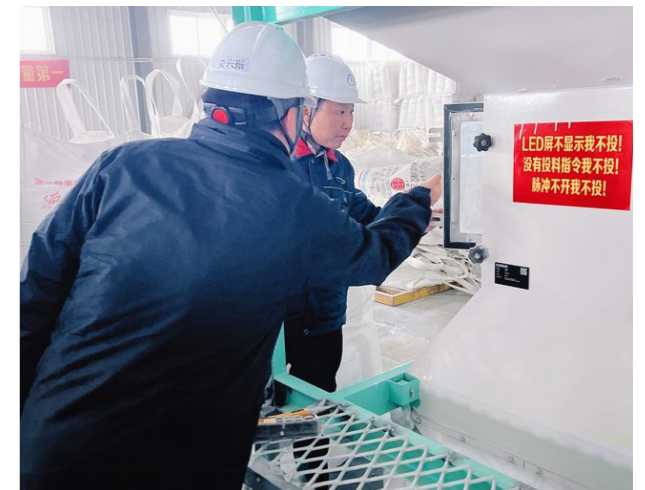
The Company actively implements *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, earnestly fulfills the requirements of the notification on occupational health supervision, and adheres to the principles of scientific development, prioritizing prevention and combining it with control.

Identifying occupational hazards such as dust, noise, and high temperatures, the Company strengthens training on occupational hazard prevention and control, enhances the overall awareness of occupational safety and hygiene among all employees, actively controls occupational hazards, eliminates the occurrence of occupational diseases, hence improves the prevention and control level of occupational hazards. Focused on improving the working environment and enhancing employees' occupational health, it conscientiously implements the promotion of occupational disease prevention and control, the establishment of a training management system, the provision of personal protective equipment, and the prevention measures of dust and noise etc., continuously improving the working environment for employees.

Contractor Safety and Health

Muyuan values the enhancement of contractor safety awareness and management capabilities. It has formulated regulations such as the *Safety Management Regulations for Construction Parties, Partners, and Other Relevant Parties*, clarifying requirements for contractor safety qualification review, as well as safety supervision, management, inspection, and assessment processes during on-site construction and special operations.

Before entering the site, contractor personnel undergo health examinations. Site managers and personnel are required to participate in safety production education and training organized by Muyuan, promoting effective enhancement of safety risk awareness among contractor personnel.



Safety Culture Construction

Through the construction of safety culture, the Company is committed to implementing safety production awareness and establishing a long-term mechanism for safety production. All employees are deeply engaged in studying the important expositions on safety production by General Secretary Xi Jinping, watching relevant documentaries such as *Life Is More Precious than Mount Tai* and *Safety First, Law in Mind*. The Company organizes safety competence certifications for all employees to strengthen the safety production responsibility system and clarify the bottom-line responsibilities.

Managers at all levels actively carry out safety commitments, promotions and practices the Company's safety production management ideas and risk prevention and control measures, enhancing employees' safety awareness and safety skills

Training Data of 2023:



In June 2023, Muyuan conducted the Safety Production Month activity with the theme "Everyone Talks about Safety, Everyone Knows Emergency Response". The activity focused on conducting major accident hidden danger investigation and rectification, special rectification of confined spaces, certification of skills for personnel engaged in hazardous operations, and aimed to improve the quality of risk investigation and rectification and further enhance safety awareness.



In November 2023, the Fire Safety Promotion Month activity was conducted to promote fire safety knowledge among employees. Comprehensive emergency drills for evacuation, fire escape, and firefighting rescue were organized to enhance employees' fire emergency response capabilities.

The *Safe Muyuan* platform was established to enhance employees' awareness of safety precautions and emergency response capabilities through safety education and information sharing. By real-time dissemination of key information such as safety standards, accident cases, safety guidelines, and weather warnings, the platform helps employees understand risks, standards, and emergency response procedures.

Sustainable Supply Chain

Adhering to the commercial civilization concept of "fairness, uprightness, openness, and transparency, simple, worry-free, efficient and win-win cooperation", Muyuan has actively built a sharing platform for industrial interconnection and established multi-dimensional cooperative relations with partners. Muyuan continuously improves the sustainability of the supply chain from admission assessment, ESG management, and funding etc. Muyuan assists in the development and management upgrade of the entire industry chain, enhancing efficiency, reducing costs, achieving optimal value, creating an industrial ecosystem, and jointly advocating and promoting symbiotic and win-win commercial civilization.

Supplier Management

The Company incorporates qualification requirements for health and safety, environmental protection, and other aspects into the supplier qualification audit process. It evaluates suppliers' ESG performance in areas such as environmental protection, resource conservation, integrity, and safety management to encourage suppliers to continuously improve their governance capabilities and adhere to the concept of sustainable development.

Supplier Admission Management

Supplier Evaluation

At the supplier admission stage, assessments are conducted in various aspects including supplier qualifications, integrity management, HSE (Health, Safety, and Environment) management, employee rights and benefits, financial credibility, personnel training, food safety, biological safety, etc. Procurement personnel conduct on-site inspections of suppliers. After passing the assessment of compliance with admission standards, suppliers ought to sign agreements such as *Supply Agreement*, *Supplier Honesty & Integrity Agreement*, *Biological Security Commitment*, *Declaration of Supplier Family Relationships Investigation*, *Environmental Protection Commitment*, etc.

Supplier Qualification Review

The audit content includes qualification requirements such as HSE system certification, quality management system certification, pollution discharge permit, energy management system certification, etc.

Supplier Due Diligence

The Company conducts supplier due diligence through on-site inspections and interviews. Specific content includes but is not limited to production operations, equipment and facilities, company personnel, internal control management, financial management, etc. Suppliers demonstrating poor performance in environmental, labor, and ethical aspects would be cautioned by the Company. In severe cases, cooperation relationships may be terminated.

Early Warning Management

Muyuan has launched an intelligent procurement management system to publicly alert and mitigate risks associated with suppliers' past delivery quality and contract fulfillment issues.

Comprehensive Evaluation of Suppliers

Muyuan continues to enhance its supplier periodic evaluation system. Based on suppliers' actual performance in aspects such as supply, quality, price, compliance, strategic coordination, integrity, and social responsibility, quarterly, semi-annual, and annual evaluations are conducted, followed by grading management based on evaluation results. Partners are certified annually with ratings of AAAAA, AAA, A, or B and granted corresponding incentive and penalty measures according to the annual performance evaluation results.

Digital Procurement Supervision Platform

Muyuan focuses on key areas such as bidding, raw material procurement, and other material procurement. We aim to build a comprehensive procurement management and supervision platform. This platform will facilitate online management throughout the entire supplier management life-cycle, including introduction, evaluation, rewards, and elimination. We will dynamically optimize the features of our intelligent electronic procurement platform and publicly announce supplier rewards and penalties. This ensures efficient interaction of information and enhances the speed of information flow circulation.

Supplier Training and Empowerment

Muyuan conducts supplier training, focusing on integrity, biosafety, supply chain finance, and logistics visualization. We grow together with our suppliers and has empowered 2,133 suppliers through training in 2023.

Supply Chain ESG Management

Muyuan actively promotes suppliers to conduct business activities in line with the same value principles. Drawing reference from the OECD Guidelines for Responsible Business Conduct and UN Global Compact Initiative etc., we have established a partnership ESG management system, integrating ESG into procurement strategies and business processes. To this end, we have formulated and released The Code of Conduct for Muyuan Suppliers. With reasonable notice, we reserve the right to audit suppliers to assess their compliance with this code. Based on audit results, we may increase or decrease procurement volume from relevant suppliers, guiding them to enhance their sustainable development performance.

Key issues	The requirements of the Code of Conduct for Muyuan Suppliers
Labor environment	Suppliers should create a safe, dignified, and fair working environment for their employees, ensuring that no discrimination or threats occur based on factors such as skin color, race, gender, or religion. They must prohibit the use of child labor and forced labor, and commit to eliminating abuse and harassment in the workplace.
Health and Safety	Working Environment and Conditions: Suppliers must provide employees with a clean, safe office environment and necessary facilities and equipment. Occupational Health and Safety: Suppliers should establish procedures and systems for preventing, managing, tracking, and reporting work-related injuries and illnesses. Emergency Prevention System: Suppliers should establish disaster prevention and emergency response plans, conduct regular emergency drills, and equip relevant tools and equipment.
Environmental Protection	Suppliers must possess relevant environmental permits as stipulated by national environmental laws and regulations. They should adhere to relevant laws and regulations, strengthen management of water resources, wastewater, exhaust gas, solid waste, etc. They should take actions to reduce GHG emissions and engage in or support practices beneficial to biodiversity conservation and deforestation risk avoidance.
Business ethics	Anti-Bribery: Suppliers are forbidden directly or indirectly to promise, offer bribes to, or accept bribes from government officials, political parties or groups, and other commercial entities with the purpose of obtaining or retaining business or attempting to influence decision-makers. Suppliers must not attempt to gain undue benefits or maintain cooperation with Muyuan by bribing Muyuan employees or offering improper benefits. They must adhere to the principle of honest operation and refrain from defaming or damaging the reputation of Muyuan and its peers. Unauthorized commitments are prohibited, and monopolizing the market or engaging in unfair competition is not allowed.
Management system	The financial condition and business activities of the suppliers should be subject to supervision by auditing units, and undergo independent economic examination and evaluation conducted by auditing units regarding authenticity, legality, and effectiveness of financial income and expenditure, as well as other economic activities.

Supply Chain Anti-Corruption Management

Muyuan continuously strengthens integrity and anti-corruption efforts, creating a cooperative environment characterized by integrity, harmony, and cleanliness. Muyuan and its suppliers strictly adhere to various laws and regulations, mutually supervise each other, and work together to foster an atmosphere of honesty and integrity in cooperation.

Security Deposit System

Before supplier admission, a security deposit for integrity and honesty must be paid. If the supplier violates the integrity and honesty agreement during the cooperation, the security deposit will be deducted.

Sign Integrity Agreement

Muyuan signs *Integrity Agreements* with suppliers, requiring them to participate in integrity and honesty lectures and complete online examinations, before cooperation commences. The agreement prohibits bribery, improper transactions, falsification, and other behaviors, with strict penalty measures in place. In 2023, the signing rate of integrity agreements with suppliers reached 100%.

Integrity Training

In 2023, Muyuan holds monthly supplier training meetings in each province and region, covering topics such as quality management, anti-corruption and integrity, striving to create a favorable business environment, and achieve integrity and mutual benefit.

Supervision and Reporting Mechanism

Muyuan establishes a mechanism for integrity and honesty reporting and formulates Reporting Reward System, implementing all-staff reporting, providing diverse reporting channels. External reporting channels directly connect to Muyuan's Audit Department, encouraging suppliers to report issues related to integrity and honesty, with protection of the informant's information. In 2023, the Audit Department handled a total of 126 cases of integrity and honesty violations by suppliers, blacklisting 86 external collaborators. Individuals and units responsible were all subject to serious sanctions in accordance with the company's integrity regulations.

Foster a Culture of Integrity

Muyuan continuously strengthening its anti-corruption efforts, focusing on consolidating the foundation of supervision work and critical time points such as New Year and National Day. Innovating supervision measures, enriching warning education methods, and deeply promoting the construction of corporate integrity culture to vigorously create an atmosphere of integrity within the company.

喜迎新春 廉洁过年

全员举报 举报重奖

凡查证属实
10万以下全部奖励举报人
10万-50万奖励10万-20万
50万以上奖励不低于20万

遵守规则，友好合作。新春愉快！

举报通道

电话举报：17837751511
邮箱举报：sjb@muyuanfoods.com
公众号举报：扫描二维码关注“廉洁牧原”
公众号即可在线举报

举报奖励标准

廉洁诚信问题举报，一经查实，查实金额10万以下的全部奖励给举报人，10万-50万给予10万-20万奖励，50万以上奖励不低于20万。

管理问题举报，经调查属实的，均视情况给予举报人现金奖励1000元-100000元。

欢迎大家积极举报！
举报电话：17837751511
0377-62202714
举报邮箱：sjb@muyuanfoods.com
微信公众号：廉洁牧原

审计部
2023年8月28日

Supplier Services

Financial Services Empower Suppliers

Muyuan adheres to the noble vision of "serving customers and promoting the high-quality development of the pig industry." Starting from the development needs of industry chain partners and leveraging finance as a catalyst, Muyuan constructs an industry chain financial service platform. This platform efficiently integrates core enterprise business data, government administrative data, and internet big data to achieve adequate data sharing and integration among banks, government, and enterprises.

In 2023, Muyuan continues to empower industrial development with financial resources, deepening cooperation with financial institutions such as Agricultural Bank of China Limited(ABC) and Bank of China(BOC). It innovates various financing schemes including reverse factoring, accounts receivable pledge, warehouse financing, in-transit goods financing, and order financing plans, providing multi-scenario, full-cycle supply chain financial services for partners along the industrial chain. Cumulatively, it has helped 1,780 cooperative partners obtain 16.909 billion yuan in supply chain financial support, facilitating win-win development among various participants in the industry chain and jointly promoting the high-quality development of the pork industry.

Implement Centralized Warehouse Model to Enhance Supply Chain Efficiency

To address issues such as insufficient transparency of supply and demand information, severe inventory backlog, long supply cycles, and high distribution costs, Muyuan has implemented the centralized warehouse model. This initiative aims to create a one-stop supply chain management service platform, enabling digital collaboration and providing end-to-end supply chain management services from suppliers, central warehouses to clients. Leveraging professional pig-raising materials, a smart mall is constructed to facilitate automatic customer demand reporting, and intelligent replenishment, order placement and delivery by central warehouses, thereby enhancing overall supply chain efficiency.

Currently, 24 central warehouses have been established and operated, providing efficient, cost-saving, and secure warehousing and distribution services to 500 high-quality suppliers. These warehouses have serviced goods worth 1 billion yuan, facilitating nationwide distribution of materials for high-quality suppliers while reducing overall logistics costs in the supply chain, improving supply efficiency and product quality, and lowering the biological safety risks of supplier products.



Centralized Warehouse

Sustainable Procurement

Muyuan has established a feed management platform to evaluate and analyze the quality of raw materials from upstream suppliers. It monitors the qualification rate of corn and wheat upon arrival and digitally displays the nutritional indicators of each raw material based on its source.



Raw Material Procurement Management Platform

Soybean meal - one of the soybean crushing products - is our important raw material during the pig production process. Muyuan focuses on holistic sustainable development and continuously increases the proportion of sustainably sourced soybean products in its procurement.

Simultaneously, Muyuan advocates upstream soybean product suppliers to reduce deforestation in soybean cultivation and actively monitors progress. This is to prevent the risks of deforestation and habitat losses associated with soybean procurement. Muyuan also requires suppliers to respect the rights of local communities or indigenous peoples, comply with all eight fundamental conventions of the International Labour Organization, and respect internationally and nationally designated protected areas without damaging endangered species defined by international or national authorities.

Muyuan annually verifies the progress and results of supplier sustainability certification and will further encourage more suppliers to achieve sustainable soybean certification.

In 2023, soybean products directly or indirectly purchased from suppliers with sustainable certifications accounted for 52.56% of the total, with an expected increase to 70% by 2025. The Company does not directly purchase soybean feed from farmers.

Community Development

Muyuan adheres to the organic integration of corporate development with the sustainable development of the regions where its business operates. It actively participates in community building, focuses on people's livelihoods and social progress, promotes the harmonious development of the regional economy and society, and achieves sustainable development of pig farming in harmony with the environment and society.

Enhance Community Communication

Community Impact Assessment

During project construction, Muyuan has established a social impact assessment procedure covering key pre-operation stages such as project proposal development, construction plan formulation, and environmental protection acceptance. This ensures that the project life-cycle complies with national and local environmental laws and regulations to protect the interests of the community and the public as much as possible.

- Muyuan has compiled the environmental protection section in the project design and feasibility study reports, conducted identification of environmental sensitive targets, and formulated corresponding pollution prevention and ecological protection measures in accordance with national and local environmental policies and the company's management systems.
- Muyuan has initiated environmental impact assessments, commissioned third-party evaluation agencies to prepare environmental impact assessment reports, and integrated the requirements of environmental impact assessment approvals into the environmental protection section of the construction plan. During the public participation phase of the environmental impact assessments, Muyuan has sought opinions and suggestions from the surrounding community.
- Once the project construction is launched, Muyuan strictly implements environmental protection measures during the construction phase in line with the environmental assessment requirements, conducts regular inspections on the enforcement of these measures, and timely organizes environmental protection acceptance for the completion of the project, ensuring the project's legal and compliant operation and production.

Community Communication Mechanisms and Channels

Muyuan values collaborative development with the communities where it operates. While conducting various business activities, the Company promptly identifies, assesses, and resolves potential conflicts between the community and the Company. It has established community communication mechanisms and development engagement plans, respecting the cultural customs and behavioral norms of the community, and promoting a win-win situation for both enterprise development and community prosperity.

The Company sets up convenience service signs at the entrances of each pig farm and posts internal communication channels in villages to receive environmental issues and other demands raised by local community villagers. The pig farms actively respond to the demands of the masses and provide assistance accordingly, promptly resolving conflicts between villages and enterprises to ensure harmony and smooth operations in the vicinity of the farming areas. A designated person is responsible for following up on the demands of the surrounding community, actively accepting social supervision. If community residents have any relevant opinions or demands, they can contact the relevant personnel by phone for feedback. The Company promises that upon receiving feedback from residents, the specialized responsible person of the backend region will contact those involved within 30 minutes, discusses and devises a solution within 2 hours, and issues an investigation report and solution agreement within 12 hours, which will be publicly announced within the community group. Satisfaction follow-up calls will be made by specialized personnel 7 to 15 days later. Monthly agricultural technology service communication exchange meetings are held to support community development.

The Company attaches great importance to feedback from the masses. Currently, an internal reporting management system has been established, covering the entire process from backend acceptance, direct communication with the parties involved, investigation and decision-making, to reward and follow-up visits. This mechanism enables immediate intervention, as well as face-to-face communication and resolution of conflicts and contradictions, thereby gaining the trust of the masses, and establishing long-term good relations with residents.

环保问题
 举报通道

一、举报内容

包括但不限于以下问题：

- 1、私设暗管偷排污水
- 2、沼液流到沟渠、坑塘、河流
- 3、还田形成大片明水坑
- 4、场区污水外流
- 5、臭气持续存在
- 6、其他环保相关问题

二、反馈方式

电话反馈：

金鹏飞 17109222288

张志颖 15664217602

对于反馈的问题，经核查属实

奖励500-5000元

牧原食品股份有限公司

Rural Revitalization

Industry Revitalization

Muyuan upholds the core values of "Create value and serve society; be upright outside and inside, and advance social development." As a national key leading enterprise, we leverage the resources, technological, and managerial advantages in agricultural industrialization. Our pig farming business spans 24 provinces (regions) and 103 cities, 217 counties (districts) nationwide, directly creating 131,000 job opportunities. The Company prioritizes employing local villagers, achieving an average annual income of 110,000 yuan per capita, and attracts 40,000 university students to engage in agriculture, contributing to rural revitalization.

Nationwide Pig Farming Layout

Create Per Capita Income

Promote University Graduates Engaged in Agriculture

24 Provinces (Regions) **103** Cities **217** Counties (Districts) **110,000** yuan / year **40,000**



Muyuan Flat-Layout Farm



Muyuan Multi-Story Farm

Muyuan extends the industry value, promotes the full-chain upgrading of rural industries, and achieves integrated development of the primary, secondary, and tertiary sectors. With an annual procurement volume exceeding 100 billion yuan, Muyuan works with nearly 10,000 supply chain companies spreading across the country to co-build an industrial ecosystem. This collaboration has led to an employment of 470,000 people, enabling more enterprises and the public to share in the development achievements of Muyuan.

Agricultural and Animal Husbandry Equipment Park in Nexiang County

Relying on the main pig farming business, more than 1,900 upstream and downstream suppliers in the agricultural and animal husbandry industry have been attracted to register in Nexiang. To promote the rapid growth of this industry and form an industrial cluster, the Nexiang County Committee, government, and Muyuan jointly planned and built the Agricultural and Animal Husbandry Equipment Industrial Park. Currently, more than 30 agricultural and animal husbandry equipment enterprises have registered in, with an annual output value of 2.5 billion yuan, making it one of the benchmark incubation bases for agricultural and animal husbandry enterprises in China and one of the leading industries in the industrial economic development of Nexiang County.



Benefiting and Assisting Farmers

Local Procurement

Muyuan adheres to the principles of fairness, openness, and transparency in procurement, expanding local grain procurement to contribute to community economic development. In 2023, the cumulative procurement of local grain reached 19.8768 million tons, an increase of 4.87% year-on-year.

Employment Promotion

Muyuan supports local employment by promoting job opportunities in the communities where its subsidiaries are located, hiring local labor for nearby positions to boost local employment rates. As of the end of 2023, the local employment rate reached 76%.

Agricultural Assistance Services

Muyuan has always adhered to mission of "rooted in one place, benefiting one place," helping farmers plow and cultivate land, seize farming opportunities, assist in seeding, planting and replanting, and ensure planting quality. Through methods such as distributing pesticides, providing free drone spraying, and conducting pest control activities, the Company ensures effective disease and pest prevention and field management, thereby increasing farmers' yields and income. Muyuan supplies and coordinates agricultural machinery for farmers free of charge, seizing the golden harvest period to ensure food security. It also engages in weeding, binding straw, and removing crop residues from the fields, laying a solid foundation for next season's crop planting. In 2023, Muyuan's investment in farmer support services totaled 31.0522 million yuan.

Help Farmers Increase Income

Muyuan vigorously develops the circular economic model which integrates "pig farming - liquid fertilizer - green agriculture", serving the green development of agriculture, helping farmers reduce costs and increase efficiency, attracting college-educated talents to return to and revitalize agriculture, and consolidating the achievements of poverty alleviation.

Currently, the Company has a team of 300 professional agronomists rooted in rural areas, deeply cultivating techniques for substituting chemical fertilizers with manure. They provide technical training for farmers on crop planting and production management based on crop growth cycles, ensuring precise disease prevention and fertilization. This helps farmers master planting techniques and improve their abilities in selecting good seeds and preventing and controlling diseases and pests.

Farms Served	Organic Fertilizer Yield	Agricultural Technical Services	Villages Covered
4.5207 million mu	519,000 tons	9,759 sessions	13,035

Persons Accepting Empowerment Trainings	Total Increase in Agricultural Income per Mu per Year	Total Increase in Agricultural Income for 2023
298,300	352.27 yuan	1.482 billion yuan

Beautiful Countryside Construction

Muyuan has continued to implement farmer-beneficial welfare projects, which include road construction, road lamp lighting enhancement, plaza development, greening initiatives, and water supply engineering. By the end of 2023, Muyuan had cumulatively donated a total of 104.2622 million yuan to these welfare initiatives, benefiting 1,609 villages. These efforts have contributed to creating a more beautiful, safe, and convenient living environment for community residents, significantly improving the quality of life for the local populace.

Support Education

Since 2003, MUYUAN has continuously carried out "Ju'ai Education Assistance" series of activities, including the *Autumn Program*, *Spring Seedling Program*, *Spring Rain Program*, *Morning Dew Program*, and *Dawn Program*, to improve rural education conditions, support community and rural education development, nurture outstanding talents for society, and promote social progress.

Rural Education

Ju'ai Education Assistance Project - Spring Rain Program

Since 2003, MUYUAN has integrated the performance evaluation of enterprises with teacher incentives, implementing rewards through awards plus subsidies to inspire teachers. This not only promoted a culture of respect for teachers but also created a good social atmosphere, thereby motivated teachers' teaching enthusiasm and improved the education level. By the end of 2023, cumulative donations reached 102 million yuan, honoring 30,700 outstanding education workers, benefiting 520 schools nationwide.

Ju'ai Education Assistance Project - Golden Autumn Program

Since 2005, MUYUAN has annually conducted the "Ju'ai Education Assistance Project - Golden Autumn Program" to reward outstanding college students and encourage them to learn, support education development, nurture talents for society, and promote social progress. By the end of 2023, over 80,000 outstanding college students had been rewarded, with a cumulative amount of 235 million yuan. In 2023 alone, rewards totaling 64.39 million yuan were distributed to 21,600 students.

Ju'ai Education Assistance Project - Spring Seedling Program

Since 2017, to improve the educational conditions for rural children, MUYUAN has donated school bags, stationery, and other learning essentials to children in rural areas, supporting community education development and helping rural children grow. By the end of 2023, over 620,000 love bags had been distributed to primary school students nationwide. In 2023, 77,933 love bag packages were distributed, spreading love and responsibility and creating a better future together.

Support the Cultivation of Scientific Research Talents Nurturing

In May 2023, MUYUAN donated 100 million yuan in cash to the West Lake Education Foundation of Hangzhou City for the construction and development of Westlake University and related public welfare education and scientific research undertakings, including but not limited to the long-term development of various aspects like talent development, discipline construction, infrastructure construction, student cultivation, academic exchanges, research, and other personnel salary subsidies, etc.

Industry Sharing

MUYUAN Open Day, Share 400 Billion Potential Development Space

MUYUAN hosted a four-day "MUYUAN Open Day" event in June 2023, inviting over 1,000 guests from various enterprises, industry associations, universities, and media to visit MUYUAN and collaborate on shared development.

Visit to MUYUAN Industrial Chain

On June 18th, MUYUAN led guests through the Company's cultural exhibits, MUYUAN Intelligent Technology Museum, and MUYUAN Meat Industry Complex, sharing the Company's development achievements.



Visit to Neixiang Complex



Visit to MUYUAN Intelligent Technology Museum

Co-creation and Sharing Forum - Focus on Breeding Pigs Management and Health Management

On June 19th, the MUYUAN Pig Festival's Co-creation and Sharing Forum opened with an opening speech by Chairman Qin Yinglin. He deeply elaborated on the theme of the forum, breaking down the 600 yuan cost space in the pig farming industry



Co-creation and Sharing Forum

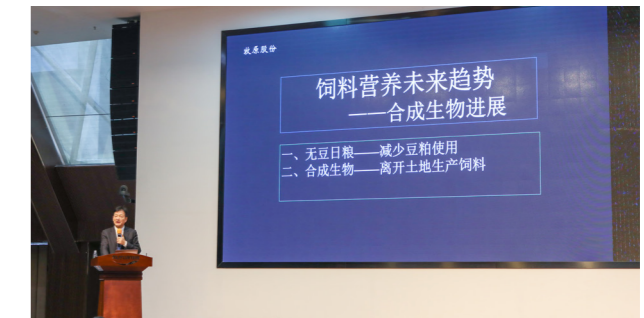
across five aspects: feed, breeding pigs, health, pig raising, and slaughtering. He indicated that the industry has a 400 billion yuan potential for development, expressing the hope for future co-creation, sharing, and joint growth.

Li Yanpeng, chief operating officer of MUYUAN pig raising, chaired the breeding pig management forum, where Zhu Hongqian, director of the breeding department, shared pig breeding experience. Niu Min, director of the veterinary department, chaired the health management forum and delivered the opening report *Analysis of the Health Value Space in MUYUAN Pig Raising*.

Co-creation and Sharing Forum - Focus on Production Management, Feed Nutrition, and Corporate Management



On June 20th, Li Yanpeng, chief operating officer of MUYUAN pig raising, shared the report *Digitalization of Production Management* and proposed that MUYUAN's efforts to tap into the 600 yuan per head cost space in pig raising are inseparable from informatization. By building a system of production digitization, management refinement, business informatization, and financialized operations, MUYUAN aims to achieve optimal management of pig efficiency, labor efficiency, and material efficiency, enhancing production efficiency.



At the feed nutrition forum, Chairman Qin Yinglin delivered a keynote speech on "Future Trends in Feed Nutrition," sharing insights on realizing the cost reduction of 37 yuan per head in feed section through decreasing feed waste and improving feed utilization efficiency within the 600 yuan per head cost space for pig raising. He also discussed MUYUAN's practical experience in promoting low-soybean meal diets.

The 18th Muyuan Pig Raising Festival and Awards Ceremony

On 21 June, guests were invited to the 18th Muyuan Pig Raising Festival and Awards Ceremony. Muyuan people demonstrate disruptive innovation ideas, continue to set new standards, put out new questions and carry forward innovative spirit. On the Ceremony, we recognized their achievements according to their performance, and awarded excellent employees particularly, so as to encourage more Muyuan people break new grounds. A "Million Dollar Award" was also established for experts, scholars, and entrepreneurs who have made outstanding contributions to the pig farming industry. Additionally, the forum featured special awards such as the *Golden Lecture Award*, *Excellent Solution Award*, and *Golden Idea Award*, to recognize guests who delivered keynote speeches and shared valuable content during the interactive sessions.



Group Photo of the 18th Muyuan Pig Raising Festival and Awards Ceremony

Actively Engaged in Industry Communication, Share Development Fruits

Muyuan actively participates in and organizes industry exchange activities, sharing development achievements at events such as the Leeman Conference, the 2023 World Agricultural Science and Technology Innovation Conference, the 4th International Veterinary Diagnostic Conference, the 2nd (2023) China Animal Husbandry Digitalization Summit, the 8th IFS China Theme Day and Food Safety Walk Annual Meeting, and the 19th Livestock and Feed Technology and Economy (Global) Summit, promoting industry-wide advancement together.

The 19th Livestock and Feed Technology and Economy (Global) Summit

On 18 to 20 April 2023, Muyuan co-hosted the 19th Livestock and Feed Technology and Economy (Global) Summit with the Organizing Committee of the Livestock Feed Technology and Economy (Global) Summit and the National Swine Industry Technology Innovation Center. They engaged in discussions on industry focal issues to explore high-quality development for the industry.



The 19th Livestock and Feed Technology and Economy (Global) Summit

During the summit, Chairman Qin Yinglin delivered a keynote speech titled "Seek Breakthroughs at the bottom of the Business and Promote Sustainable Development," explaining the opportunities and challenges faced by the industry. He showcased Muyuan's efforts and achievements in starting from the technological origin and achieving business breakthroughs. Li Yanpeng, chief operating officer of Muyuan Pig Raising, introduced Muyuan's pig raising goals, disease purification, and the application of information and intelligent technology. Vice president Chu Ke, along with other entrepreneurs, discussed the topic "Breaking Through and Transforming the Chinese Feed Industry" at the feed industry sub-forum.

The First International Pig Digestive Disease Symposium (IPDDS)

From April 9 to 11, 2024, the first International Pig Digestive Disease Symposium (IPDDS) was successfully held at Muyuan. Muyuan participated in the preparation of the conference, with key personnel joining the academic committee to discuss the conference themes and report directions. Experts and scholars from 11 countries gathered at this meeting for in-depth academic exchange and discussion, contributing wisdom to the high-quality development of the livestock industry.



Roundtable Forum



Guests Visit to Muyuan Culture

Participate in Industry Standards Formulation, Promote Industry Development

Muyuan actively promotes ESG practices and participates in the formulation of industry standards to promote industry development. In September 2023, Muyuan, in conjunction with the China Animal Agriculture Association, the Sanya Economic Research Institute, and other relevant organizations, jointly released *The Guide of ESG Information Disclosure for Animal husbandry Enterprises*. This standard aims to promote sustainable development in animal husbandry, enhance product quality and safety, improve supply chain risk management, establish social responsibility of livestock industry, integrate public interests into the corporate value system, and thus promote the common improvement of corporate and social values, driving high-quality and common development in the animal husbandry industry.



The Release Ceremony of *The Guide of ESG Information Disclosure for Animal husbandry Enterprises*



Future Prospects

Looking ahead to the future in the new era of development, Muyuan will continue to focus on sustainable development goals, upholding the corporate core value of "creating value and serving the society". We will persist in our "Five Commitments" sustainable development strategy, namely food safety, environmental protection, win-win cooperation, employee care and public welfare. Our aim is to pursue excellence, produce high-quality products, and achieve shared value creation.

Food Safety

Muyuan will always prioritize providing high-quality products. We will continue to enhance our food safety and quality management system to ensure the production of 100% safe and healthy pork products. Our focus remains on nutritional research to meet people's demands for a better quality of life.

Green and Low-carbon Practices

We actively address climate change by adhering to green development principles. Muyuan actively responds to climate change by adhering to green development principles and innovating the crop-livestock cycle. The Company explores new paths for energy conservation, environmental protection, and sustainable agricultural development, focusing on soil preservation and water conservation, thus promoting high-quality green development in the industry.

Win-win Cooperation

Muyuan consistently upholds the principles of open cooperation and mutual benefit, continuing to work with partners to build an industrial ecosystem and create a harmonious and shared industrial system. This contributes to the innovative development of the industry.

Employee Care

Muyuan adheres to the principle of benefiting employees. We will continue to provide a harmonious and equitable space for employee growth and development, working hand in hand with employees to realize shared value.

Social Welfare

Muyuan will continue to demonstrate corporate responsibility as the industry leader, supporting rural revitalization and economic development, and building beautiful villages. We will continue our efforts in supporting education, helping the disadvantaged, and jointly creating a better life for all.

Appendix

Muyuan's ESG Key Performance

Governance Performance

Index	Unit	2023	2022	2021
Pigs Produced	10,000 heads	6,381.6	6,120.1	4,026.3
Pigs Slaughtered	10,000 heads	1,326.0	736.2	289.9
Feed Production	10,000 tons	2,317	2,037	1,579
Operating Revenue	100 million yuan	1,108.61	1,248.26	788.90
Net Profit	100 million yuan	-41.68	149.33	76.39
Total Assets	100 million yuan	1,954.05	1,929.48	1,772.66
Dividends Paid	100 million yuan	40.03	14.88	56.61
Tax Paid	100 million yuan	8.08	11.62	8.45
Board Members	Person	7	7	7
Independent Directors	Person	3	3	3
Percentage of Independent Directors	%	43	43	43
Female Directors	Person	1	1	1
Percentage of Female Directors	%	14	14	14
Supervisory Board Members	Person	3	3	3
Female Supervisors	Person	1	1	1
Percentage of Female Supervisors	%	33	33	33
Employee Representatives on the Supervisory Board	Person	1	1	1
Percentage of Employee Representatives on the Supervisory Board	%	33	33	33
R&D Personnel	Person	6,681	6,134	4,632
Percentage of R&D Personnel	%	5.09	4.37	3.37
R&D Expenditure	100 million yuan	16.58	11.42	8.08
Percentage of R&D Expenditure	%	1.50	0.92	1.02
Patents Authorized During the Reporting Period	Item	185	557	250
Cumulative Number of Authorized Patents	Item	1,626	1,441	884

Environment Performance

Index	Unit	2023	2022	2021	
Resource Usage	Diesel	Liter	79,547,301.79	81,893,303.65	70,072,490.09
	Gasoline	Liter	14,082,124.55	12,061,076.15	18,417,548.36
	Gas	m ³	124,220,654.99	218,839,075.60	129,469,790.60
	Electricity	MWh	6,045,117.82	5,142,753.02	4,328,154.29
	Total Energy Consumption	ton Standard Coal	1,006,482.28	1,010,437.76	793,881.24
	Energy Intensity	kg Standard Coal/kg pork	0.1975	0.2269	0.2114
	Biogas Utilization	10,000 m ³	3,445.07	2,531.90	960.29
	Biogas Power Generation	10,000 kWh	1,667.76	932.93	44.45
	Photovoltaic Power Generation	10,000 kWh	3,688.44	316.13	/
	Manure Water Reuse	10,000 m ³	348.26	307.00	52.21
Emissions	Scope 1 Emissions	10,000 tCO ₂ e	416.47	389.45	307.65
	Scope 2 Emissions	10,000 tCO ₂ e	381.54	340.56	283.54
	Total Carbon Emissions	10,000 tCO ₂ e	798.21	730.01	591.19
	Carbon Reduction	10,000 tCO ₂ e	331.12	319.72	251.06
	Net Carbon Emissions	10,000 tCO ₂ e	466.89	410.29	340.13
	Carbon Intensity	kgCO ₂ e/kg pork	0.964	0.998	1.049
	Particulate Matter	Ton	2.20	0.72	0.16
	NO _x	Ton	14.58	4.43	0.90
	SO ₂	Ton	1.92	0.26	0.27
	Chemical Oxygen Demand(COD)	Ton	128.36	88.24	39.76
	Ammonia Nitrogen	Ton	2.99	2.30	0.604
	Total Nitrogen	Ton	79.45	52.45	13.54

Social Performance

Performance Indicators		Unit	2023	2022	2021
Employment	Employees	Person	131,276	140,403	137,520
	Male Employees	Person	103,032	108,581	104,422
	Female Employees	Person	28,244	31,822	33,098
	College Graduates	Person	35,376	35,407	34,872
	Retired Soilders	Person	5,890	6,561	6,126
	Female Employees Percentage	%	21.51	22.66	24.07
	Female Senior Managers Percentage	%	26	31	27
	Labor Contract Signing Rate	%	100	100	100
	Labor Contract Employees	Person	131,276	140,403	137,520
	Labor Dispatch Employees	Person	0	0	0
	Part-time Workers	Person	0	0	0
	Local Employees Percentage	%	75.98	85.51	74.90
	Employees under 30	Person	39,172	45,029	48,319
	Employees aged 30-50	Person	84,236	89,049	81,751
	Employees over 50	Person	7,868	6,325	7,450
	Mainland Employees	Person	131,276	140,403	137,520
Hong Kong, Macao, Taiwan, and Overseas Employees	Person	0	0	0	
Health and Safety	Total Investment in Safety Production	10,000 RMB	19,825	19,236	45,000
	Employee Health and Safety Training Coverage Rate	%	100	100	100
	Total Duration of Employee Health and Safety Training	Hour	44	43.5	15
	Full-Time Safety Personnel	Person	62	34	10
	Employee Physical Examination Coverage Rate	%	100	100	100
Employee Training	Employee Training Coverage Rate	%	100	100	100
	First-line Employee Training Coverage Rate	%	100	100	100
	Middle Managers Training Coverage Rate	%	100	100	100
	Senior Managers Training Coverage Rate	%	100	100	100
	Training Expenditure	10,000 RMB	70,000	50,000	12,800
	Average Training Duration per Person	Hour	148	100	75
	Training Coverage Ratio	%	100	100	100
	Average Training Hours for First-line Employees	Hour	60	/	/

Performance Indicators		Unit	2023	2022	2021
Employee Training	Average Training Hours for Middle Managers	Hour	216	/	/
	Average Training Hours for Senior Managers	Hour	168	/	/
Employee Welfare	Social Insurance Coverage Rate	%	100	100	100
	Employee Inquiry Response Rate	%	100	100	100
Products and Customer Service	Proportion of Sold Products Recalled Due to Safety and Health Issues	%	0	/	/
	Sales revenue of products sold or shipped but recalled for safety and health reasons	10,000 RMB	0	/	/
	Timeliness Rate of Complaint Handling for Products and Services	%	100	/	/
	Illegal and Violation Incidents in Marketing (Including Advertising, Sales Promotion, and Sponsorship)	Case	0	/	/
	Illegal and Violation Incidents in Health, Safety, and Labeling of Products and Services Provided	Case	0	/	/
	Confirmed Complaints of Customer Privacy Rights Infringement and Lost Customer Data	Case	0	/	/
	Illegal and Violation Incidents in Customer Privacy	Case	0	/	/
	Total Suppliers	Number	9,500	/	/
	Suppliers in Mainland China	Number	9,500	/	/
Suppliers in Hong Kong, Macao, Taiwan, and Overseas	Number	0	/	/	
Suppliers Responsibility	Proportion of Suppliers Assessed in Environment, Labor, Ethics, etc.	%	100	100	100
	Proportion of Suppliers Passed Assessment in Environment, Labor, Ethics, etc.	%	100	100	100
	Supplier Training Coverage Rate	%	100	100	100
	Purchase Contract Compliance Rate	%	99.5	99.5	99.0

Global Reporting Initiative (GRI) Index

Items	Description	Sections in the Report
GRI 2: General Disclosures		
1. Entities and Reporting Practices		
2-1	Organizational details	Company Profile
2-2	Entities included in the organization's sustainability reporting	About the Report
2-3	Reporting period, frequency, and contact point	About the Report
2-4	Restatements of information	About the Report
2-5	External assurance	Corporate Governance
2. Activities and Workers		
2-6	Activities, value chain and other business relationships	Sustainable Supply Chain
2-7	Employees	Happy Employees
2-8	Workers who are not employees	Sustainable Supply Chain
3. Governance		
2-9	Governance structure and composition	ESG Management
2-10	Nomination and selection of the highest governance body	Corporate Governance
2-11	Chair of the highest governance body	Message From the Chairman, Corporate Governance
2-12	Role of the highest governance body in overseeing the management of impacts	Message From the Chairman, ESG Management
2-13	Delegation of responsibility for managing impacts	ESG Management
2-14	Role of the highest governance body in sustainability reporting	ESG Management
2-15	Conflict of interest	/
2-16	Communication of critical concerns	ESG Management
2-17	Collective knowledge of the highest governance body	/
2-18	Evaluation of the performance of the highest governance body	Corporate Governance
2-19	Remuneration policies	Corporate Governance, Happy Employees
2-20	Process to determine remuneration	Corporate Governance, Happy Employees
2-21	Annual total compensation ratio	/
4. Strategies, Policies and Practices		
2-22	Statement on sustainable development strategy	ESG Management
2-23	Policy commitments	Sustainable Supply Chain, Happy Employees
2-24	Embedding policy commitments	Business Ethics
2-25	Processes to remediate negative impacts	Risk Management, Business Ethics, Happy Employees
2-26	Mechanisms for seeking advice and raising concerns	Corporate Governance, ESG Management, Happy Employees

Items	Description	Sections in the Report
2-27	Compliance with laws and regulations	Corporate Governance
2-28	Membership association	Annual Awards and Recognition
5. Stakeholder Engagement		
2-29	Approach to stakeholder engagement	ESG Management
2-30	Collective bargaining agreements	Happy Employees
GRI 3: Materiality Issues		
3-1	Process to determine material topics	ESG Management
3-2	List of material topics	ESG Management
3-3	Management of material topics	Sustainable Corporate Governance, Environmentally Friendly Development, Pragmatic Responsibility Assumption
GRI 201 Economic Performance		
201-1	Direct economic value generated and distributed	Corporate Overview, 2023 ESG Highlight Performance
201-2	Financial implications and other risks and opportunities due to climate change	Low-carbon Actions
201-3	Defined benefit plan obligations and other retirement plans	Happy Employees
201-4	Financial assistance received from government	/
GRI 202 Market Presence		
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	/
202-2	Proportion of senior management hired from the local community	2023 ESG Highlight Performance, ESG Key Performance Table
GRI 203 Indirect Economic Impacts		
203-1	Infrastructure investments and services supported	2023 ESG Highlight Performance, Community Development, Low-carbon Actions
203-2	Significant indirect economic impacts	2023 ESG Highlight Performance, Low-carbon Actions, Community Development, Sustainable Supply Chain
GRI 204 Procurement Practices		
204-1	Proportion of spending on local suppliers	Low-carbon Actions, Sustainable Supply Chain
GRI 205 Anti-corruption		
205-1	Operations assessed for risks related to corruption	Business Ethics
205-2	Communication and training about anti-corruption policies and procedures	Business Ethics, Sustainable Supply Chain
205-3	Confirmed incidents of corruption and actions taken	Business Ethics
GRI 206 Anti-competitive Behavior		
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Business Ethics, Sustainable Supply Chain
GRI 207 Tax		
207-1	Approach to tax	Risk Management
207-2	Tax governance, control, and risk management	Risk Management
207-3	Stakeholder engagement and management of concerns related to tax	Risk Management
207-4	Country-by-country reporting	N/A

Items	Description	Sections in the Report
GRI 301 Materials		
301-1	Materials used by weight or volume	Low-carbon Actions, Sustainable Supply Chain
301-2	Recycled input materials used	Low-carbon Actions, Sustainable Supply Chain
301-3	Reclaimed products and their packaging materials	Low-carbon Actions, Sustainable Supply Chain
GRI 302 Energy		
302-1	Energy consumption within the organization	Low-carbon Actions
302-2	Energy consumption outside of the organization	/
302-3	Energy intensity	Low-carbon Actions
302-4	Reduction of energy consumption	Low-carbon Actions
302-5	Reductions in energy requirements of products and services	Low-carbon Actions
GRI 303 Water and Effluents		
303-1	Interactions with water as a shared resource	Green Production
303-2	Management of water discharge-related impacts	Green Production
303-3	Water withdrawal	Green Production
303-4	Water discharge	Green Production
303-5	Water consumption	Green Production
GRI 304 Biodiversity		
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Ecological Restoration and Biodiversity Conservation
304-2	Significant impacts of activities, products and services on biodiversity	Ecological Restoration and Biodiversity Conservation
304-3	Habitats protected or restored	Ecological Restoration and Biodiversity Conservation
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operation	Ecological Restoration and Biodiversity Conservation
GRI 305 Emissions		
305-1	Direct (Scope 1) GHG emissions	Low-carbon Actions
305-2	Energy indirect (Scope 2) GHG emissions	Low-carbon Actions
305-3	Other indirect (Scope 3) GHG emissions	/
305-4	GHG emissions intensity	Low-carbon Actions
305-5	Reduction of GHG emissions	Low-carbon Actions
305-6	Emissions of ozone-depleting substances (ODS)	Low-carbon Actions, Green Production
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Low-carbon Actions, Green Production

Items	Description	Sections in the Report
GRI 306 Waste		
306-1	Waste generation and significant waste-related impacts	Green Production
306-2	Management of significant waste-related impacts	Green Production
306-3	Waste generated	Green Production
306-4	Waste diverted from disposal	Green Production
306-5	Waste directed to disposal	Green Production
GRI 308 Supplier Environmental Assessment		
308-1	New suppliers that were screened using environmental criteria	Sustainable Supply Chain
308-2	Negative environmental impacts in the supply chain and actions	Sustainable Supply Chain
GRI 401 Employment		
401-1	New employee hires and employee turnover	Happy Employees
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Happy Employees
401-3	Parental Leave	Happy Employees
GRI 402 Labor/Management Relations		
402-1	Minimum notice periods regarding operational changes	Happy Employees
GRI 403 Occupational Health and Safety		
403-1	Occupational health and safety management system	Happy Employees
403-2	Hazard identification, risk assessment, and incident investigation	Happy Employees
403-3	Occupational health services	Happy Employees
403-4	Worker participation, consultation, and communication on occupational health and safety	Happy Employees
403-5	Worker training on occupational health and safety	Happy Employees
403-6	Promotion of worker health	Happy Employees
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Happy Employees
403-8	Workers covered by an occupational health and safety management system	Happy Employees
403-9	Work-related injuries	Happy Employees
403-10	Work-related ill health	Happy Employees
GRI 404 Training and Education		
404-1	Average hours of training per year per employee	Happy Employees
404-2	Programs for upgrading employee skills and transition assistance	Happy Employees
404-3	Percentage of employees receiving regular performance and career development reviews	Happy Employees
GRI 405 Diversity and Equal Opportunity		
405-1	Diversity of governance bodies and employees	2023 ESG Highlight Performance, Corporate Governance, Happy Employees
405-2	Ratio of basic salary and remuneration of women to men	Happy Employees

Items	Description	Sections in the Report
GRI 406 Non-discrimination		
406-1	Incidents of discrimination and corrective actions taken	Happy Employees, Sustainable Supply Chain
GRI 407 Freedom of Association and Collective Bargaining		
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Happy Employees, Sustainable Supply Chain
GRI 408 Child Lab		
408-1	Operations and suppliers at significant risk for incidents of child labor	Happy Employees, Sustainable Supply Chain
GRI 409 Forced or Compulsory Labor		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Happy Employees, Sustainable Supply Chain
GRI 410 Security Practices		
410-1	Security personnel trained in human rights policies or procedures	/
GRI 411 Rights of Indigenous Peoples		
411-1	Incidents of violations involving rights of indigenous peoples	Community Development
GRI 413 Local Communities		
413-1	Operations with local community engagement, impact assessments, and development programs	Community Development
413-2	Operations with significant actual and potential negative impacts on local communities	Community Development
GRI 414 Supplier Social Assessment		
414-1	New suppliers that were screened using social criteria	Sustainable Supply Chain
414-2	Negative social impacts in the supply chain and actions taken	Sustainable Supply Chain
GRI 415 Public Policy		
415-1	Political contributions	Community Development
GRI 416 Customer Health and Safety		
416-1	Assessment of the health and safety impacts of product and service categories	Product Quality
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Product Quality
GRI 417 Marketing and Labeling		
417-1	Requirements for product and service information and labeling	ESG Key Performance
417-2	Incidents of non-compliance concerning product and service information and labeling	ESG Key Performance
417-3	Incidents of non-compliance concerning marketing communications	ESG Key Performance
GRI 418 Customer Privacy		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Product Quality, ESG Key Performance

Reader Feedback

Dear readers,

Thank you for reading the ESG Report 2023 of Muyuan Foods Co., Ltd. To provide you and other stakeholders with more professional and valuable corporate social responsibility information, Muyuan sincerely invites you to offer your valuable opinions and suggestions on this Report. Your feedback will help us further enhance our ability and level of social responsibility and sustainable development management in the future.

Optional Questions:

1. Do you think this report comprehensively and accurately reflects the significant economic, social, and environmental impacts of Muyuan Shares?

Yes Fair No

2. Do you think the stakeholders identified in this report and the analysis of their relationships with Muyuan are accurate and comprehensive?

Yes Fair No

3. Do you think this report reflects the significant environmental impacts of Muyuan?

Yes Fair No

4. Do you think this report reflects the significant social impacts of Muyuan?

Yes Fair No

5. Do you think this report reflects the corporate governance situation of Muyuan?

Yes Fair No

6. Do you think the information provided in this report is readable?

Yes Fair No

Open Questions:

1. What aspects of this report are most satisfactory to you?

2. Are there any pieces of information you need that are not reflected in this report?

3. Do you have any suggestions for our future ESG report compilation?

Please feel free to provide any other comments or suggestions regarding this report.

Your Contact:

Name: _____ E-mail: _____ Tel: _____ Company: _____

Our Contact:

Address: Muyuan Foods Co., Ltd., Longsheng Industrial Park, Wolong District, NanyangCity, Henan Province

Tel: 0377-65233888

Zip code: 473000

E-mail: office@muyuanfoods.com

Website: www.muyuanfoods.com

- **Create value**
- **Serve society**
- **Be upright outside and inside**
- **Advance social development**

Muyuan Foods Co., Ltd.

Office Address: Longsheng Industrial Park, Wolong District, Nanyang City, Henan Province

Zip code: 473000

Telephone: 0377-65233888

Website: www.muyuanfoods.com

E-mail: office@muyuanfoods.com

 The paper used for the printed report is environmentally friendly.