

目錄

Contents

報告説明 About this Report	3
執行總裁致辭 Acting CEO's Statement	6
走進現代牧業About Modern Dairy	8
企業文化全景圖	9
企業事記	12
可持續現代牧業	14
公司治理	14
風險控制	15
可持續發展管理Sustainable Development Management	16
1. 智慧賦能 循環發展Smart Empowerment and Circulatory Development	27
1.1 智慧高效牧場	28
1.2 促進生態循環	33
1.3 應對氣候變化Addressing Climate Change	43
1.4 低碳綠色運營	49

2.		·為本 保障福利vs-oriented and Safeguard Well-being of Cows	64
	2.1	環境及行為福利	66
	2.2	生理及心理福利Physiological and Psychological Welfare	73
	2.3	健康及安全福利	76
3.		產品 責任共贏 h-quality Products and Win-win Cooperation	80
	3.1	追求品質奶源	81
	3.2	聚焦客戶福利	88
	3.3	保障知識產權	89
	3.4	堅守責任供應	89
4.		.為本 共創美好ple-oriented and Co-development for Better Future	95
	4.1	謀福利的「養牛人」	96
	4.2	知進取的「養牛人」	108
	4.3	重執行的「養牛人」 Pragmatic "Cow Keeper"	124
展望 Out	₹ tlook		128
		SG指標索引 ix: ESG Indicators Index	130

報告説明

About this Report

本報告是中國現代牧業控股有限公司(「本公司」)發佈的環境、社會及管治(以下簡稱「ESG」)報告,重點披露本公司於報告期內,在環境及社會風險管理方面的行動和表現,以滿足利益相關方對本公司的期望和要求。

This report is the Environmental, Social and Governance ("**ESG**") Report issued by China Modern Dairy Holdings Ltd. (the "**Company**") to focus on the disclosure of the Company's actions and performance in the aspects of environmental and social risk management during the reporting period to satisfy the expectations and requirements of the stakeholders to the Company.

本公司相信,健康的環境、社會及管治表現對未來可持續發展、達成長期目標和為股東創造價值起着決定性影響。本公司在財務表現穩健提升的同時,密切關注企業社會責任的履行與可持續發展。

The Company believes that healthy environmental, social and governance performance is of paramount importance to our future sustainable growth, realizing long-term goals and creating value for our shareholders. The Company has all along been attentive and persistent in carrying out corporate and social responsibilities and has been fostering sustainable development of the Group while steadily improving its financial performance.

報告期內,本公司遵守相關環境、社會及管治報告指南所載的條文進行披露,無環境、社會及管治方面重大不合規事宜發生。

During the reporting period, the Company has complied with the relevant disclosure requirements as set out in the ESG reporting guide and no material non-compliance in the aspects of the environment, society and governance have been identified.

• 報告原則

Reporting Principles

重要性:本報告遵循聯交所重要性原則規定,在報告中披露董事會及ESG工作小組審議ESG事宜,利益相關方溝通、實質性議題識別過程及實質性議題矩陣,具體遵循情況詳見後文對應部分。

Materiality: This report follows the requirements of the materiality principle of the Stock Exchange, and discloses in the report the discussion of ESG matters by the Board of Directors and the ESG working group, the communication with stakeholders, the identification process of material topics and the matrix of material topics. For details, please refer to the corresponding sections below.

量化:本報告中定量關鍵績效指標的統計標準、方法、假設及/或計算工具,以及轉換因素的來源,均 在報告釋義中進行説明。

Quantitative: The statistical criteria, methods, assumptions and/or calculation tools for the quantitative KPIs in this report, as well as the sources of conversion factors, are all illustrated in explanatory notes.

平衡:本報告不偏不倚地呈報本公司報告期內的表現,避免可能會不恰當地影響報告讀者決策或判斷的 選擇、遺漏或呈報格式。

Balance: This report presents the Company's performance during the reporting period in an impartial manner, avoiding choices, omissions or presentation formats that may unduly influence the decisions or judgments of readers of the report.

一致性:本報告披露數據除溫室氣體排放統計方法外,所使用的統計方法均保持一致。公司在2021財年對溫室氣體排放的計算方法進行優化,具體可查看「表:2021年現代牧業排放物指標」附註。

Consistency: Except for the statistical methods of greenhouse gas emissions, the statistical methods used in the data disclosed in this report are all consistent. The Company has optimized the calculation method of greenhouse gas emissions in FY 2021. For details, please refer to the note to "Table: Emission indicators of Modern Dairy of 2021".

• 報告範圍

Reporting Scope

報告的組織範圍:根據重要性原則,本報告以中國現代牧業控股有限公司及其重要子公司為主體,以營業收入為計算報告範圍的依據,本報告環境與社會定量數據計算範圍為93%。為便於表述和方便閱讀,「中國現代牧業控股有限公司及其重要子公司」在本報告中以「現代牧業」、「公司」、「本公司/本集團」或「我們」表示。

Organizational scope of this report: According to the principle of materiality, this report focuses on China Modern Dairy Holdings Ltd. and its major subsidiaries. Taking operating revenue as the basis for calculating the scope of the report, the calculation scope of quantitative environmental and social data in this report is 93%. For the convenience of presentation and reading, the words "Modern Dairy", "company", "the Company/Group" or "we" refer to "China Modern Dairy Holdings Ltd. and its major subsidiaries" throughout this Report.

報告的時間範圍: 2021年1月1日 - 2021年12月31日。 **Reporting period:** 1 January 2021 - 31 December 2021.

• 編寫依據

Preparation Basis

報告編製根據香港聯合交易所《環境、社會及管治報告指引》,同時參考全球報告倡議組織GRI《可持續發展報告標準》及其食品加工行業補充指引要求的披露指標。

This report is prepared in accordance with the Environmental, Social and Governance Reporting Guide of The Stock Exchange of Hong Kong Limited, and with reference to the Sustainability Development Reporting Guidelines of Global Reporting Initiative (GRI) and the disclosure indicators required by the additional guidance of the food processing industry.

● 數據説明

Information in this Report

報告中所有數據來自現代牧業正式文件和統計報告,如與年報數據不一致,請以年報為準。非特殊說明,報告中貨幣單位「元|即「人民幣元」。

All data set out in this Report are adopted from the internal documents and relevant statistics of Modern Dairy. In case of any inconsistency with our annual report, the latter shall prevail. Unless otherwise specified, the currency unit "yuan" in this Report refers to "RMB".

• 報告獲取

Access to this Report

您可以在港交所網站及現代牧業網站主頁獲取本報告的中、英文PDF版本。

You can access this Report in Chinese and English in PDF on the website of Hong Kong Exchanges and Clearing Limited and the home page of Modern Dairy.

港交所披露官網/Official website of HKEX news:

http://www.hkexnews.hk/

現代牧業官網/Official websites of Modern Dairy:

http://www.xiandaimuye.com/

http://www.moderndairyir.com/

本報告以中英文兩種文字出版,在對兩種文本理解發生歧義時,請以中文文本為準。

This Report is published in both Chinese and English. In case of any discrepancies between the two versions, the Chinese version shall prevail.

執行總裁致辭

Acting CEO's Statement

2021財年是現代牧業極其不平凡的一年。在奶業發展機遇和挑戰並存的背景下,依托一系列政策利好和規模 化奶製品企業發展,現代牧業創造更多更大的發展機會和空間。斐然的業績開創了現代牧業實施「五年領跑計 劃」的全新局面,在積極開拓新業務領域,增加新的利潤增長點的同時,現代牧業不斷強化可持續發展管理, 打造綠色生態,積極承擔社會責任,樹立良好企業形象。

FY 2021 is an extremely extraordinary year for Modern Dairy. Under the background of the coexistence of opportunities and challenges in the development of the dairy industry and relying on a series of policies to favour the development of large-scale dairy enterprises, Modern Dairy has created more and greater development opportunities and space. The outstanding performance has created a new situation for Modern Dairy to implement the "Five-Year Lead Plan". While actively exploring new business areas and adding new profit growth points, Modern Dairy has continuously strengthened sustainable development management, created a green ecology, actively assumed social responsibilities, and established a good corporate image.

建立持續發展體系,營造廉潔陽光氛圍

Establishing a sustainable development system and creating a clean and transparent atmosphere

現代牧業搭建從上到下的可持續發展管治架構,穩健推進可持續發展戰略工作,逐步全面規範環境、社會與 管治各項管理。同時,我們弘揚廉潔文化,堅持反貪污工作,堅守商業道德底線,保障本公司朝着健康方向 發展。

Modern Dairy builds a top-to-bottom sustainable development governance structure, steadily advances the sustainable development strategy, and gradually regulates the management on the environment, society and governance in an all-round way. At the same time, we promote a culture of integrity, adhere to anti-corruption work and stick to the bottom line of business ethics to ensure that the Company is developing in a healthy direction.

預警氣候變化風險,堅持綠色經營理念

Early warning of climate change risks and adherence to the concept of green management

現代牧業持續數字化轉型,升級牧場生產運營模式,構建開源節流的高效牧場,實施多項減排措施和專項治理活動,為經濟發展鋪設綠色通道。我們積極應對氣候變化,全面部署保障工作,細化工作流程,有效控制潛在風險。

Modern Dairy continues its digital transformation, upgrades the production and operation mode of pastures, builds high-efficiency pastures that increase income and reduce expenditure, and implements a number of emission reduction measures and special governance activities to pave a green way for economic development. We actively respond to climate change, fully deploy safeguards and refine workflows to effectively control potential risks.

強化奶牛福利養殖,保障動物快樂生產

Strengthening the welfare and well-being of dairy cows and ensuring the happy production of animals

現代牧業將奶牛福利視為上游產業鏈解鎖高品質牛奶的重要抓手,堅持「好牛自然產好奶」的不變初心,始終恪守「以牛為本」的經營理念,根據奶牛自然生活習性、配合先進飼育技術推進奶牛福利事業,實施嚴防嚴控的防疫措施,全面提升動物福利意識。

Modern Dairy regards the welfare and well-being of dairy cows as an important starting point for the production of high-quality milk in the upstream industry chain, adheres to the original intention of "good cows naturally produce good milk", and always adheres to the "cow-oriented" business philosophy. We promote the welfare and well-being of dairy cows according to the natural living habits of dairy cows and with the support of advanced breeding technology, and implement strict prevention and control measures to comprehensively enhance the awareness of animals' welfare and well-being.

生產科學優質好奶,打造客戶信賴品牌

Producing high-quality milk in a scientific way and building brands trusted by customers

現代牧業始終秉承「食品安全對消費者負責」的社會責任,以高於歐盟的標準把控生產規範,創新採用「牧草種植、奶牛養殖、牛奶加工一體化」模式,把現代化工廠建在規模化的牧場裏,把規模化的牧場建在配套的草場裏,實現全產業鏈、各環節無縫鏈接,生產過程全面監控。

Modern Dairy has always adhered to the social responsibility of "food safety is responsible for consumers", and controls production standards with standards higher than those of the European Union. We adopted the innovative model of "integration of forage planting, cow breeding and milk processing", built modern factories in large-scale pastures, and built large-scale pastures in forage plants with supporting facilities, aiming to realize the seamless link of the whole industry chain and all links and comprehensively monitor the production process.

助力員工多元發展,合力共建美好家園

Helping employees develop in multiple ways and working together to build a beautiful home

現代牧業注重「以人文本」,保障員工基本權益,合法用工,建立安全和健康的生產環境,鼓勵員工全面發展,為員工設立清晰明確的職業發展通道,培養專業人才,創造企業和員工共同發展的良好氛圍。我們創造經濟利益的同時,不忘回饋社會,積極開展公益活動,致力於鄉村振興事業,實現共贏和共享發展。

Modern Dairy pays attention to the principle of being "people-oriented", protects the basic rights and interests of employees and employs labour in a legal way. We established a safe and healthy production environment, encouraged employees to develop in an all-round way, set up clear career development channels for employees and cultivated professional talents to create a good atmosphere for the common development of the Company and employees. While creating economic benefits, we do not forget to give back to society by actively carrying out public welfare activities, devoting ourselves to the cause of rural revitalization and achieving win-win and shared development.

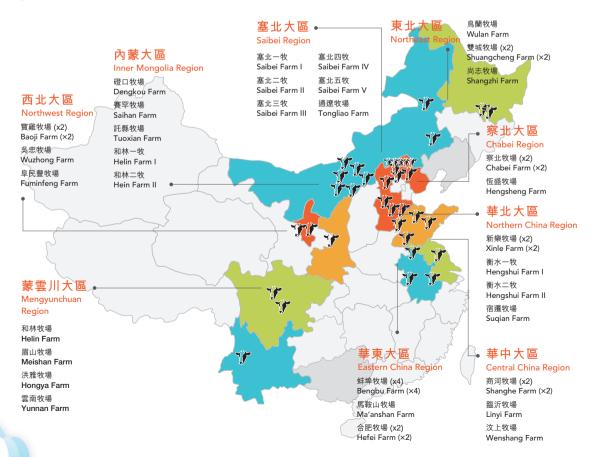
走進現代牧業 About Modern Dairy

現代牧業成立於2005年9月,是一家專門從事奶牛養殖和牛奶生產的企業,總部位於安徽省馬鞍山。2010年11月26日在香港聯交所成功上市,是全球第一家以奶牛養殖資源上市的企業。依托全球首創的「牧草種植、奶牛養殖、牛奶加工一體化」全產業鏈生產模式,現代牧業已經發展成為國內規模最大的奶牛養殖企業、高品質原奶供應商及優質乳加工製造者。

Founded in September 2005, Modern Dairy specializes in cow breeding and milk production, with headquarter in Ma'anshan City, Anhui Province. It was successfully listed on the Hong Kong Stock Exchange on 26 November 2010 and has become the first listed enterprise focusing on dairy cow breeding in the world. Modern Dairy has become the largest dairy farming enterprise, high-quality raw milk supplier and dairy processing manufacturer in China leveraging on the world's proprietary production model of "integration of forage planting, dairy farming and milk processing" that covers the whole industry chain.

我們以「創建世界最先進的牧場,生產世界最優質的牛奶」的經營發展戰略為指導,長期堅持「專心、專業、專注」於中國乳業發展。截止2021年12月31日於中國經營33家乳牛牧場公司,擁有353,793頭乳牛,年化產奶量達200萬噸以上。按畜群大小計算,本集團是全球領先的乳牛畜牧公司及原料奶生產商。本集團純牛奶連續八年獲世界食品質量評鑒大會金獎,標誌著我們高質量的品牌奶廣泛獲得社會各界的肯定。

Insisting on "attention, professionalism, concentration" philosophy, the Company is committed to the development of China's diary industry under the guidance of the operation and development strategy of "building the world's most advanced farms and producing the world's best milk". As at 31 December 2021, the Group operated 33 dairy farming companies in the PRC with dairy cows of 353,793 heads and annualised milk yield of over 2 million tons. The Group is a global leading dairy farming operator and raw milk producer in terms of herd size. The Group's pure milk was awarded the Gold Prize of Monde Selection for the eighth consecutive year, symbolizing that our premium quality branded milk was widely recognized by all sectors of the society.



企業文化全景圖 Corporate Culture Panorama











Values

①安全健康第一

敬畏生命棄漠視風險質量優先 絕不妥協質量優先 絕不妥協

❷高標準 高效執行

②正直立本 誠信立事 Be honest and credible

堅持原則幹實事 棄逐利盲從搞投機

Execute with high standards and efficiency

尊重科學 創新領先主動擔當 説到做到 棄放空炮 等靠要

公平公正 棄暗箱操作

3 讓牛人綻放 Unleash our potentials 敢用牛人 不論資排輩

重獎牛人 棄平均主義善於賦能 彼此成就



Value talents from all walks of life. Reward talents based on merits. Good at empowering and be successful together. Say no to bias and backstabbing.

4 Uphold principles and be pragmatic. Stop speculation and opportunism. Be fair and open. Speak with truth and substance.



企業事記

Milestones

2021年4月12日12 April 2021

現代牧業尊貴純牛奶連續八年榮膺世界食品品質評鑒大會金獎,產品品質再獲國際認可。
The "Premium Pure Milk" product of Modern Dairy won the Gold Award at the Monde Selection for eight consecutive years, and its product quality has been recognized internationally again.

2021年6月29日29 June 2021

現代牧業全新管理團隊首次亮相,共啓牧業發展新征程。

The new management team of Modern Dairy made its debut, starting a new journey of animal husbandry development.

2021年7月5日5 July 2021

現代牧業獲標普BBB投資級評級,成為全球首家獲得國際信用評級為投資級的奶牛養殖企業。 Modern Dairy was assigned the "BBB" investment grade rating by Standard & Poor's, becoming the first dairy farming company in the world to be assigned an international credit rating of "investment grade".

2021年7月17日17 July 2021

現代牧業發佈優質乳工程評價成果,成為全球首家獲優質乳工程認證的牧業集團。

Modern Dairy released the evaluation results of the "Quality Milk Project" and became the first farming group in the world that has been certified by the "Quality Milk Project".

2021年8月23日23 August 2021

現代牧業公佈2021年中期業績,經常性溢利同比大幅增長約230%。

Modern Dairy announced its 2021 interim results, with recurring profit increasing by approximately 230% year on year.

• 2021年9月15日

15 September 2021

現代牧業啓動新疆昌吉項目,成功佈局新疆首座規模化牧場。

Modern Dairy started the Xinjiang Changji Project and successfully deployed the first large-scale ranch in Xinjiang.

• 2021年11月29日

29 November 2021

現代牧業公告正式完成收購富源國際,為實現五年戰略目標邁出堅實一步。

Modern Dairy announced that it had officially completed the acquisition of Fuyuan International, a solid step towards achieving its five-year strategic goal.

• 2021年12月4日

4 December 2021

現代牧業(集團)有限公司蟬聯「年度最具成長力新鋭品牌」,執行總裁孫玉剛榮獲「最佳操盤手」。

Modern Farming (Group) Co., Ltd. was awarded the "Most Growing New Brand of the Year" for consecutive years, and Sun Yugang, the Acting CEO, won the "Best Trader" award.

現代牧業開展「牛人共創•犇騰前行」企業文化升級共創會,助力集團推進文化強企戰略,發揮文化引領作用。

Modern Dairy carried out the corporate culture upgrading and co-creation meeting of "Cow Keepers Moving Forward with Great Enthusiasm", which helped the Group to promote the strategy of strengthening the enterprise with culture and play a leading role in culture.

• 2021年12月10日

10 December 2021

現代牧業正式啟動雙碳項目,勇擔社會責任,全面開啟集團減碳綠色發展之路。

Modern Dairy officially launched the dual-carbon (carbon peak and carbon neutrality) project to shoulder the social responsibility, which fully opened up the Group's pathway to carbon reduction and green development.

可持續現代牧業

Sustainable Modern Dairy

公司治理

Corporate Governance

現代牧業遵守《中華人民共和國公司法》等國家法律法規及各項監管規定,按照香港聯合證券交易所上市規則和現代企業管理制度要求,建立較為完善的內部管理體系,設置股東大會、董事會、公司管理層,建立決策權、監督權和經營權之間權責分明、各司其職、運轉協調的運行機制,保障公司運作高效、規範、有序,兼顧各利益相關方的利益。

Modern Dairy complies strictly with the Company Law of the People's Republic of China and other national laws and regulations as well as various regulatory requirements, and has established a sound internal management system in accordance with the listing rules of the Hong Kong Stock Exchange and the requirements of the modern corporate management system, which consists of a general meeting, a board of directors and a corporate management as well as an effective operational mechanism with clear delineation of the decision-making, supervisory and operational powers and responsibilities, aiming to guarantee the smooth and coordinated operation of the Company while effectively protecting the interests of our stakeholders.

公司董事會向股東負責,以負責任及有效的方式管理公司。每名董事均致力為現代牧業最佳發展貢獻自身專業技能及知識。董事會決定公司目標和策略,監察及控制公司在實踐策略性目標過程中的經營及財務表現,並授權行政總裁及公司管理層在公司董事會監督下負責公司業務的日常管理。董事會下設薪酬委員會、審核委員會、提名委員會、戰略及發展委員會等四個專門委員會,在董事會召開前對審議事項提前審議,提高董事會運作效率。2021年,現代牧業共召開股東大會2次,董事會會議5次。

The Board of Directors of the Company is accountable to the Shareholders and manages the Company in a responsible and effective manner. Each Director is committed to contributing his or her professional skills and knowledge to the best development of the Company. The Board of Directors decides on the Company's objectives and strategies, monitors and controls the Company's operational and financial performance in the process of achieving its strategic objectives, and delegates responsibility for the day-to-day management of the Company's operations to the Chief Executive Officer and the Company's management, under its supervision. The Board of Directors has four specialized committees under it, namely the Compensation Committee, Audit Committee, Nomination Committee and Strategy and Development Committee, which are responsible for reviewing in advance the issues to be considered at the Board meetings, aiming to enhance the operational efficiency of the Board. A total of two general meetings and five Board meetings were held in 2021.

風險控制

Risk Control

公司建立健全風險管理及內部監督體系,在已建立的《全面風險管理制度》及《內部審計管理制度》等管理規範的基礎上,針對業務特性進一步細化關鍵控制點,建立二級制度操作細則。公司始終以風險導向型審計為基礎,踐行風險識別先行,審計監督跟進的模式,聚焦集團核心業務,將風險管理與內部審計有效融合,實現風險導向閉環管理,為企業防範風險、改善運營、價值增值、護航戰略起到了重要作用。

The Company has established sound risk management and internal supervision systems. On the basis of the established management norms such as the Comprehensive Risk Management System and the Internal Audit Management System, we have further refined the key control points according to business characteristics, and established operating rules for the secondary system. The Company has always emphasized the risk-oriented auditing as the basis, practised the model of "risk identification coming first with the following by audit supervision", and focused on the core business of the Group, effectively integrating risk management and internal auditing. In this way, we can achieve risk-oriented closed-loop management, which plays an important role in preventing risks, improving operations, adding value and implementing strategies for the Group.

風險控制 Risk Control

風除管理體系 Risk Management System

- 企業風險管理全面遵循 COSCO (Committee of Sponsoring Organizations of the Treadway Commission)五個主要風控管理框架, 並採用[三道防線] 模式補充強化,即各牧場總經理為第一道防線,集 團風險管理委員會為第二道防線,董事會/審核委員會為第三道防線, 合力構築企業風險防御系統。
- 2021年,公司通過自下而上的三級風險識別方式,由業務單位先行識別評估,再由職能中心復核評估,並由管理層進行調研,最後風控部門結合綜合情況,進行專業研判評估得出集團前十大風險,基於評估結果落實各項風險項目應對措施,實行風險分級管理,並對重點領域實施重點監控,定期向管理層滙報。報告期內,公司未發生重大風險事件,實現風險可防可控。
- Regarding the enterprise risk management, we fully follow the
 five-major-risk control management framework of COSO (Committee
 of Sponsoring Organizations of the Treadway Commission), and adopt
 the "three lines of defence" model (that is, the general manager of
 each farm is the first line of defence, the Group's risk management
 committee is the second line of defence, and the Board of
 Directors/audit committee is the third line of defence) to supplement
 and strengthen, jointly building an enterprise risk defence system
- and strengthen, jointly building an enterprise risk defence system.

 In 2021, the Company implemented a bottom-up three-level risk identification method. The business units first identify and evaluate risks, which then will be examined and evaluated by the functional centre and conducted research on by the management. Finally, the risk control department conducts professional research and judgment based on the comprehensive situation, and then evaluates and selects the top ten risks of the Group. Based on the evaluation results, we implement the countermeasures for various risks, implement the risk classification management, implement key monitoring on key areas, and report to the management on a regular basis. During the reporting period, no major risk-events occurred in the Company, and all the risks were preventable and controllable.

內部監督體系 Internal Supervision System

- 公司致力於構建科學、有效的內部監督體系、內部審計作為監督體系的重要組成部分、依據《中華人民共和國審計法》、聯交所《企業管制守則》、《內部審計基本守則》及其他網領性文件的指導,始終站在獨立客觀的角度評價經營活動及內部控制的適當性、合法性和有效性,以此促進組織目標的實現。
- 2021年,內部審計在合理保證審計覆蓋的基礎上,聚焦公司重要業務領域,深耕業務管理重要環節,改善業務流程合規運營,同時強抓審計問題整改,堅持查改並重方針,實彻「三個不放過」原則(問題不整改堅決不放過、整改不徹底堅決不放過、責任不落實堅決不放過),切實推動審計成果落地,助力業務合規運營,全年未發現重大內部控制缺陷,實現了審計價值增值。
- The Company is committed to building a scientific and efficient internal supervision system. Internal audit is an important part of the supervision system. Under the guidance of the Audit Law of the Peoples' Republic of China, the Corporate Governance Code of the Stock Exchange, the Basic Standards for Internal Auditing and other programmatic documents, we always evaluate the appropriateness, legality and effectiveness of business activities and internal control from an independent and objective perspective, so as to promote the realization of organizational goals.
- In 2021, in addition to reasonably ensuring audit coverage, our internal
 audit focused on important business areas of the Company,
 emphasized the important links of business management, and
 improved the compliance operation of business processes. We also
 focused on the rectification of audit issues and adhered to the principle
 of "resolute rectification of problems and implementation of
 responsibilities", so as to effectively promote the implementation of
 audit results and facilitate compliance operations. We identified no
 major internal control deficiencies throughout the year and realized the
 appreciation of audit value.

可持續發展管理

Sustainable Development Management

• 董事會聲明

Board Statement

本公司嚴格遵循《上市公司治理準則》、《環境、社會及管治報告指引》等相關披露要求。公司董事會高度 重視環境、社會及管治相關工作,並對相關策略及匯報負責,包括評價及釐定環境、社會及管治風險, 確保公司設立有效的風險管理和內部監控系統,對ESG問題的重要性進行最終評估與釐定,定期檢討公司ESG表現,並審批公司環境、社會及管治報告內的披露數據。本報告亦經過董事會審閱發佈。

The Company strictly complies with the relevant disclosure requirements such as the Corporate Governance Guidelines for Listed Companies and Environmental, Social and Governance Reporting Guidelines. The Board of Directors of the Company attaches great importance to environmental, social and governance-related work, and is responsible for related strategies and reports, including evaluating and determining environmental, social and governance risks, to ensure that the Company has established effective risk management and internal control systems. It conducts final assessments and determinations of the materiality of ESG issues, regularly reviews the Company's ESG performance, and approves the disclosures in the Company's environmental, social and governance reports. This report has also been reviewed and released by the Board of Directors.

可持續發展管治架構 Sustainability Governance Framework

依托中國奶業政策的支持,現代牧業對標國際領先企業,優化全產業鏈並走上可持續發展道路,提升整體管理體系,推進可持續發展戰略工作。公司董事會作為ESG項目最終責任人,制定「五年戰略規劃」及減碳戰略、ESG政策及相應舉措,持續識別並監控環境、社會及管治風險與機遇,定期調整ESG相關工作,2021財年,公司董事會將進一步完善ESG治理體系,推動公司ESG水平不斷提升。

Relying on the support of China's dairy industry policy, Modern Dairy benchmarks against international leading enterprises, optimizes the entire industry chain and embarks on a sustainable development path, thereby improving the overall management system and promoting sustainable development strategy work. As the ultimate responsible organ of ESG projects, the Board of Directors of the Company has formulated a "five-year strategic plan", carbon reduction strategy, ESG policy and corresponding measures, continuously identified and monitored environmental, social and governance risks and opportunities, and regularly adjusted ESG-related work. In FY 2021, the Board of Directors of the Company will further improve the ESG governance system and promote the continuous improvement of the Company's ESG level.

在董事會授權下,公司建立環境、社會及管治工作小組,小組成員涉及多個相關部門及附屬公司,支持董事會做出的ESG相關決策,負責協調各部門開展日常ESG工作,如數據收集、信息報送等信息披露工作,監督落實情況,及時督促糾正偏離行動。

Under the authorization of the Board of Directors, the Company has established an environmental, social and governance working group with members from various relevant departments and subsidiaries. The working group supports ESG-related decisions made by the Board of Directors, and is responsible for coordinating the daily ESG work of various departments (such as data collection, information reporting and other information disclosure work) and supervising its implementation and timely urging corrective actions to correct deviations.

公司根據香港聯合交易所「上市規則」附錄27《環境、社會及管治相關指引》要求,參考全球報告倡議組織《GRI可持續發展報告標準》,逐步完善環境、社會及管治指標體系,將關鍵指標作為可持續發展工作重心,明確責任分工,優化管理架構,穩健可持續發展。

In accordance with the requirements of the Environmental, Social and Governance Reporting Guide in Appendix 27 to the Listing Rules of the Hong Kong Stock Exchange and with reference to the GRI Sustainability Reporting Standards of the Global Reporting Initiative, the Company has gradually improved its environmental, social and governance indicator system. We regard key indicators as the focus of sustainable development, clarify the division of responsibilities, and optimize the management structure to achieve stable and sustainable development.

利益相關方溝通Stakeholders Communication

利益相關方 Stakeholders	期望與訴求 Expectations and Demands	溝通方式 Communication Mode	我們的回應 Our Response
股東/投資者 Shareholders/ Investors	• 保障股東權益 Safeguard the rights and interests of shareholders	 股東大會 General meeting 定期信息披露 	 透明公開的信息披露 Transparent and open information disclosure
	 優異的業績 Outstanding performance 	Regular information disclosure	 強化投資管理 Enhance investment management
	 持續穩定增長的投資回報 Sustained and steady increase of return on investment 	 聯交所/公司網站 Websites of the Stock Exchange/Company 	 加強企業風險管理 Strengthening enterprise risk management
	● 廉潔透明的運營 Honest and transparent operation	● 投資者會議及路演 Investor conference and roadshow	● 持續提高價值創造能力 Continuously improve the ability to create value
政府/監管機構 Government/ Regulatory agency	● 合規經營 Compliance	• 信息報送 Information submission	 加強合規運營 Strengthen compliance operation
	嚴格的內部控制和風險管理 Strict internal control and risk management	Compliance report 參與會議/研討會	 加強安全管理 Strengthen safety management
	• 促進經濟發展 Promote economic development	Attending meeting/Semina特別查詢/檢查Special inquiry/Inspection	or ◆ 依法納税 Pay taxes according to law
	 突出社會貢獻 Extraordinary contribution to the society 	 遞交文件 Submission of documents 	
	● 安全運營 Safe operation		

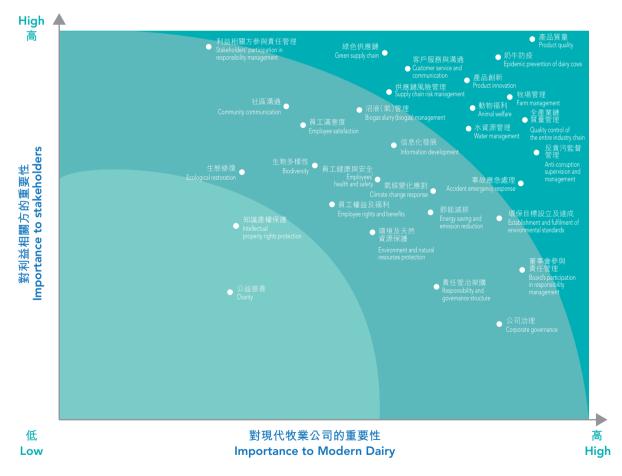
利益相關方 Stakeholders	期望與訴求 Expectations and Demands	溝通方式 Communication Mode	我們的回應 Our Response
消費者 Consumers	 個人隱私保護 Personal privacy protection 食品安全 Food safety 優質服務體驗 Superior service experience 營養健康多樣的產品選擇 Availability of nutrient, healthy, and diversified products 	 公司官網 Official website of the Company 客服熱線 Customer service hotline 客戶滿意度調查 Customer satisfaction survey 	 保障消費者權益 Safeguard consumers' rights 保障產品質量 Product quality guarantee 生產公開透明 Open and transparent production
員工 Employees	 保障員工權利及權益 Safeguard the rights and interests of employees 職業健康及安全 Occupational health and safety 改善員工福利 Improve employee benefits 平等就業機會及多元化發展 Equal employment opportunities and diversified developments 	 勞動合同 Employment contract 信息平台 Information platform 諮詢電話與郵件 Hotline and email 內部月刊 Internal monthly magazine 投訴平台線上線下培訓交流 Online and offline training and exchange of complaint platform 	activities

利益相關方 Stakeholders	期望與訴求 Expectations and Demands	溝通方式 Communication Mode	我們的回應 Our Response
供貨商/合作夥伴 Supplier/Partner	 建立長期業務關係 Establish a long-term business relationship 公平採購、誠信履約 Fair procurement and honest performance 產品質量保證 Product quality assurance 	 供應商評估 Evaluation of suppliers 實地考察 On-site visit 定期供應商會議 Regular supplier meeting 	 嚴格供應鏈管理 Strict supply chain management 嚴選牧場 Strict selection of farm 堅持公平公開的採購 Insist on fair and open procurement
環境 Environment	 堅持綠色運營 Insist on the green operation 最小化環境影響 Minimize environmental impact 應對氣候變化 Address climate change 保護生態多樣性 Protect biodiversity 	 環境檢查 Environment inspection 環境信息披露 Environment information disclosure 倡導環保理念 Advocate the idea of environmental protection 堅持可持續發展 Insist on sustainable development 	 加強環境及生態保護 Strengthen environmental and ecological protection 堅持可持續發展道路 Insist on the path of sustainable development 打造循環智能牧場 Create circular and smart farms 創新農業循環模式 Innovate the agricultural recycling model
社區 Community	 開展社會公益 Carry out public benefit activities 促進社區發展 Promote community development 	 了解社區需求 Understand community needs 制定社區服務規劃 Formulate community service plan 	 開展社會公益活動 Carry out public benefit activities 開展社區服務 Carry out community service 促進本地就業 Promote local employment 馳援疫區 Aid to the epidemic areas

實質性議題識別 Identification of Material Topics

公司依照香港聯交所《環境、社會及管治報告指引》,參考全球報告倡議組織《可持續發展報告標準》(GRI Standards),結合內外部利益相關方期望以及業務特徵,識別、評估與總結實質性議題,並下發至利益相關方進行問卷調研。同時,結合問卷結果及對與我們業務相關且重要的ESG事宜進行分析與驗證後,篩選並形成實質性議題矩陣,作為本公司ESG關注及披露依據。

In accordance with the Hong Kong Stock Exchange's Environmental, Social and Governance Reporting Guidelines and with reference to the Global Reporting Initiative's Sustainability Reporting Standards (GRI Standards), based on internal and external stakeholders' expectations and business characteristics, the Company identifies, evaluates and summarizes material topics, and sends them to stakeholders for questionnaire survey. At the same time, based on the results of the questionnaire and the analysis and verification of important ESG issues related to our business, we screen and form a matrix of material topics as the basis for the Company's ESG concerns and disclosures.



回應聯合國可持續發展目標(UN SDGs) Responding to the UN Sustainable Development Goals



現代牧業多年來持續幫助貧困員工和營運地週邊社區的貧困家庭脱困,幫助改善貧困居民生活,在節日為貧困居民送上生活慰問品和祝福。

Over the years, Modern Dairy has continued to help poor employees and poor families in the surrounding communities where it operates, help improve the lives of poor residents, and send daily necessities and blessings to poor residents on festivals.



現代牧業致力於提供優質健康的原奶,打造優質的牛乳工程。

Modern Dairy is committed to providing high-quality and healthy raw milk and creating high-quality milk projects.



現代牧業杜絕性別歧視,支持男女平等,並保障女性員工合法權益和福利。 Modern Dairy eliminates gender discrimination, supports gender equality, and protects the legal rights and benefits of female employees.



現代牧業為營運地週邊地區提供了大量就業崗位,帶動當地農民增收;嚴禁強制勞動、僱用童工,為員工提供具有競爭力的薪酬福利體系,不斷加強員工工作生活的後勤保障。

Modern Dairy has provided a large number of jobs in the surrounding areas of the operation sites, driving the income of local farmers to increase; and strictly prohibits forced labour and child labour, provides employees with a competitive salary and welfare system, and continuously strengthens the logistical guarantee of employees' work and life.









現代牧業堅持發展「牛糞發酵-優質沼肥-青貯施肥-回購青貯」的生態農業循環經濟,在糞污處理模式上走出了一條環保、生態、效益相結合的創新之路,改善了當地的生態環境和生物多樣性,提高了調節氣候變化的能力。

Modern Dairy insists on developing an eco-agricultural economy featuring the cycle of "Cow Manure Fermentation – Quality Manure Fertilizer – Silage Fertilization – Silage Repurchase", and has successfully paved an innovative way integrating environmental protection, eco-friendliness and profitability in manure treatment. As a result, the local ecological environment and biodiversity have been improved, and the ability to regulate climate change has been enhanced.



現代牧業不斷完善企業管治,加強反腐敗建設,致力建立高效透明的治理體系。 Modern Dairy continuously improves corporate governance, strengthens anticorruption construction, and is committed to establishing an efficient and transparent governance system.

反貪污及商業道德

Anti-corruption and Business Ethics

本公司嚴格遵守《中華人民共和國刑法》、《中華人民共和國公司法》等要求,積極開展反腐倡廉工作,公司建立健全內控機制,編製《現代牧業集團廉政管理制度》、《信訪舉報和問題線索處置管理規定》、《紀律處理處分流程審批辦法》、《關於任用親屬和防止利益衝突的規定》等制度。

The Company strictly abides by the requirements of the Criminal Law of the People's Republic of China and the Company Law of the People's Republic of China, and actively carries out anti-corruption work. The Company has established and improved the internal control mechanism, and formulated the Integrity Management System of Modern Dairy Group, the Provisions on the Management of Petition Reporting and Handling of Questions and Clues, the Approval Measures for Disciplinary Handling and Procedures, and the Regulations on Appointing Relatives and Preventing Conflicts of Interest.

現代牧業高度重視廉政建設及反腐敗反貪污工作,建立管理體系,設立紀檢辦公室貫徹落實關於反腐敗工作的各項要求,嚴格管理貪污腐敗問題,保證公司每一位成員堅守商業道德底線。公司完善反腐敗政策,嚴令禁止公司員工接受任何形式的回扣、中介費、好處費、禮品等饋贈,並要求管理層人員不得利用職務便利為親屬及特定關係人謀取私利,防止利益衝突發生。公司針對高風險節點及領域強化監督檢查工作,並鼓勵內部互相監督,並持續開展培訓,深化廉潔意識。

Modern Dairy attaches great importance to the construction of clean government and anti-corruption work. We have established management systems and set up the discipline inspection office to implement various requirements on anti-corruption work to strictly manage corruption issues and ensure that every member of the Company adheres to the bottom line of business ethics. The Company has perfected the anti-corruption policy, strictly prohibits the employees from accepting any form of rebates, agency fees, facilitation fees and gifts, and strictly prohibits management personnel from taking advantage of their positions to seek personal benefits for relatives and specific related persons to prevent conflicts of interest. The Company strengthens the supervision and inspection of high-risk nodes and fields, encourages internal mutual supervision, and continues to carry out training to deepen the awareness of integrity.

• **完善反腐敗管理體系。**公司始終保持對違紀違規的高壓態勢,積極構建「不敢腐、不能腐、不想腐」 的管理體系。

Improve the anti-corruption management system. The Company has always maintained a high-pressure stance against violations of disciplines and regulations, and actively built a management system of "don't dare to corrupt, cannot corrupt, and do not want to corrupt".

• **開展專項監督檢查**。公司針對重點環節、領域,開展專項監督檢查,如加強淘牛商准入監督、關注 工程建設領域及走訪調研青貯客戶,挖掘問題線索,進行問題梳理,向相關責任部門提出建議,及 時規避風險挽回經濟損失。

Carry out special supervision and inspection. The Company conducts special supervision and inspection for key links and fields, such as strengthening the access supervision of cattle purveyors, paying attention to engineering construction fields and visiting and investigating silage customers, and digs out the clues of the problem, sorts out the problems, and makes suggestions to the relevant responsible departments, so as to avoid risks and recover economic losses in time.

• 建設全體監督渠道。公司重視舉報,持續通暢通信訪投訴渠道,如舉報電話、舉報郵箱、信件、網絡等,鼓勵全體員工監督工作中違反反貪污反腐敗規定的行為,排除阻力,加大對核心層、重點崗位的反腐力度。

Build an overall supervision channel. The Company attaches great importance to whistle-blowing, and continuously smooths communication and complaint channels such as hotlines, mailboxes, letters and the Internet, and encourages all employees to supervise the violation of anti-corruption regulations in their work and increases the anti-corruption efforts at the core level and key positions.

完善舉報人保護機制。公司建立信訪舉報人保護機制,允許員工進行匿名舉報,嚴格保密舉報人信息,堅決杜絕打擊報復行為。對於打擊報復行為,公司將依照制度予以嚴肅處理,其中構成犯罪的,將移交司法機關處理,確保舉報人安全受到法律保護。報告期內,未出現舉報人信息泄露及打擊報復情況。

Improve whistle-blower protection mechanism. The Company has established a whistle-blower protection mechanism, allowing employees to report anonymously, keeping the whistle-blower's information strictly confidential and resolutely putting an end to retaliation. For retaliation, the Company will deal with it seriously in accordance with the system, and if constituting a crime, the relevant case will be transferred to the judicial organ for handling to ensure the safety of whistle-blowers by law. During the reporting period, there was no information leakage and retaliation against whistle-blowers.

藥中全員思想防線。公司堅持強化反腐敗培訓,不斷提高員工廉潔意識。公司優化線上、線下多種培訓模式,培訓範圍覆蓋公司全員。以「知鳥平台」為載體,向全員推送反腐敗培訓課程,並開展內容豐富的教育活動,鼓勵全體員工主動擔當,廉政履職,營造風清氣正的工作氛圍;公司開展線下反腐敗相關制度培訓、廉潔文化培訓等課程,強化員工對反腐敗的認知,全面打造廉潔文化氛圍。報告期內,公司組織開展線下廉潔培訓58次,全員參與線上線下反腐敗培訓共計7,823人次。此外,公司強化董事及高管人員的反腐倡廉教育,報告期內,組織董事及高管人員參加集團反腐敗宣傳教育2次。

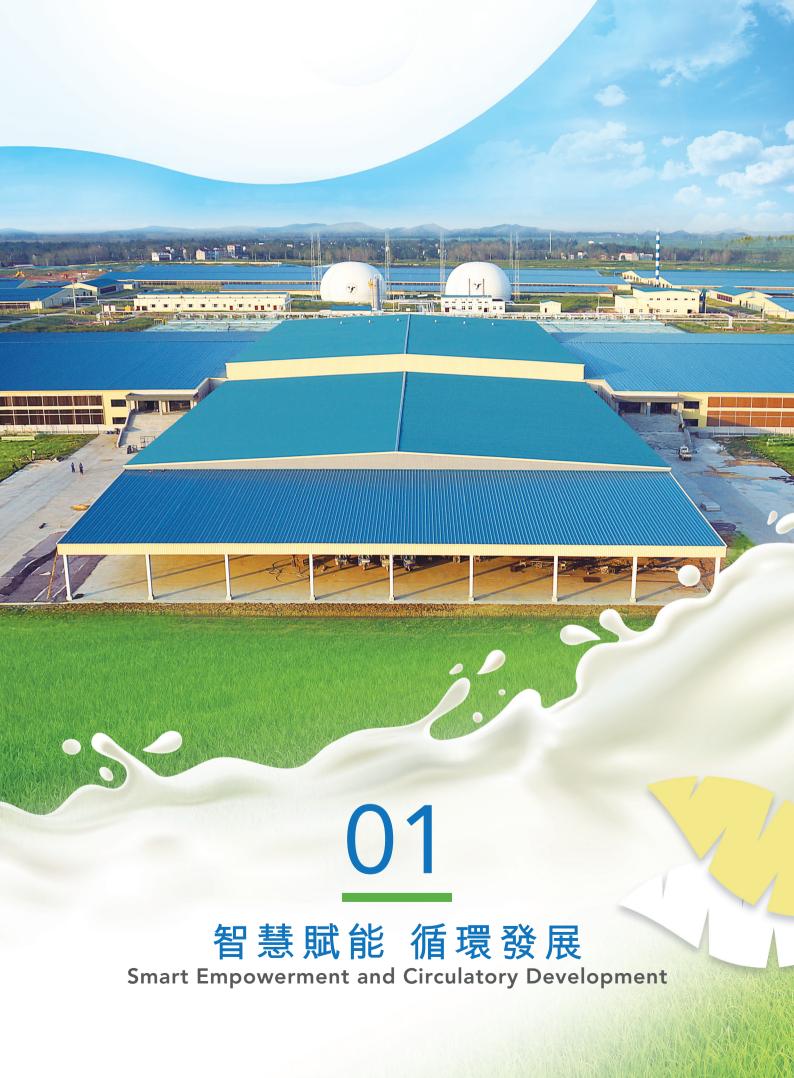
Raise the anti-corruption awareness of all employees. The Company insists on strengthening anti-corruption training and continuously improves employees' integrity awareness. The Company optimizes various online and offline training modes, and the training covers all employees of the Company. We use the Zhiniao Platform (知鳥平台) as a carrier to push anti-corruption training courses to all employees, and carry out educational activities with rich contents to encourage all employees to take the initiative to take responsibility, perform their duties with integrity and create a clean working atmosphere. The Company conducts offline anti-corruption-related system training, integrity culture training and other courses to strengthen employees' awareness of anti-corruption and comprehensively create a culture of integrity. During the reporting period, the Company organized a total of 58 off-line anti-corruption training sessions with a total of 7,823 participants in the on-line and off-line anti-corruption. In addition, the Company strengthened anti-corruption education for directors and senior executives. During the reporting period, the Company organized directors and senior executives to participate in the Group's anti-corruption publicity and education activities twice.

• 完善供應商反腐機制。公司高度重視供應商反腐,建立並完善《招標監督管理辦法》、《集團黑名單管理辦法》等制度,規範招標流程,建立招標監督信息數據庫,設立黑名單准入准出流程,利用信息數據化監督方式加強供應商反腐力度。同時,加強供應商培訓,與供應商共建廉潔合作氛圍。報告期內,組織89家青貯供應商廉潔培訓,與140家供應商進行廉潔共建。並加強合作過程中的廉潔提醒,向青貯供應商發送《致合作夥伴的一封廉潔告知書》。積極構造與供應商「綠色、公平、公正」的合作環境。

Improve the supplier anti-corruption mechanism. The Company attaches great importance to supplier anti-corruption. We have established and improved the Administrative Measures for Bidding Supervision, the Measures for the Administration of Group Blacklists and other systems to standardize the bidding process, established a bidding supervision information database, and set up blacklist access and exit processes, so as to strengthen anti-corruption efforts on suppliers by means of information and data-based supervision. At the same time, we strengthen supplier training and build a clean cooperation atmosphere with suppliers. During the reporting period, we organized integrity training for 89 silage suppliers, and conducted integrity-building activities with 140 suppliers. We strengthen the integrity reminder in the process of cooperation, and send the Integrity Notice to Partners to silage suppliers, aiming to actively construct a "green, fair and just" cooperation environment with suppliers.

• 嚴懲違紀違規案件。公司紀檢辦公室對收到的違規違紀案件線索進行全方位核查,對於核查屬實情況,嚴格按照制度規範嚴肅處理問責相關人員,積極挽回公司經濟損失,必要時移送司法機關,並將相關違規違紀情況在集團內通報,以示警戒。2021年,公司紀檢辦公室共收到問題線索31件,處理違規違紀人員29人,並挽回經濟損失453餘萬元,其中直接經濟損失230餘萬元。本年度未發生貪污腐敗、洗錢等司法訴訟案件。

Severely punish for cases of disciplinary violations. The Disciplinary Inspection Office of the Company will conduct an all-round verification of the clues received for violations of laws and disciplines. If the situation is true after verification, we will strictly follow the rules and regulations to seriously deal with the relevant personnel to actively restore the Company's economic losses, transfer it to the judicial authorities if necessary, and report the relevant violations of laws and disciplines within the Group as a warning. In 2021, the Disciplinary Inspection Office of the Company received a total of 31 violation clues. We found 29 employees who violated the rules and regulations, and the economic losses of more than RMB4.53 million were recovered, of which the direct economic losses were more than RMB2.3 million. No corruption, money laundering and other judicial litigation cases occurred during the year.



1. 智慧賦能 循環發展

Smart Empowerment and Circulatory Development

我們始終致力於上游生態養殖,打造更智慧、高效、綠色、低碳的生態牧場。我們不斷優化牧場管理系統,應用智能管理技術,利用科技賦能管理,形成更智慧、更高效的管理體系;同時,我們重視生態保護,積極應對氣候變化,持續打造更自然、更低碳的生態循環體系。

We have always been committed to upstream ecological farming to create a more intelligent, efficient, green and low-carbon ecological farm. We continuously optimize the farm management system, apply intelligent management technology, and use technology to improve management, so as to form a smarter and more efficient management system. At the same time, we attach great importance to ecological protection and actively respond to climate change, so as to continue to create a more natural and lower-carbon ecological cycle system.

1.1 智慧高效牧場

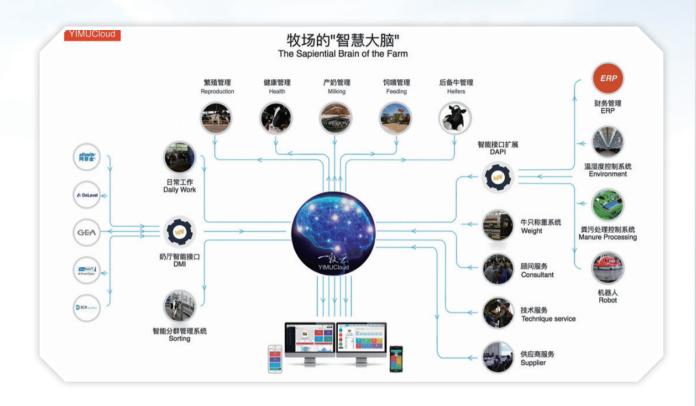
Smart and Efficient Farms

現代牧業致力於打造高效智慧牧場,加強乳業新時代的核心競爭力。通過強化智能管理技術完善牧場生產管理系統,將科技融入牧場高效管理工作中,實現牧場種植、奶牛養殖、奶源加工及消費者洞察的採集、融合、管理,保證運營與技術可視化、流程操作標準化,以高效的數字化運營賦能乳業新生態,實現牧場智慧轉型。

Modern Dairy is committed to building efficient and smart farms and strengthening the core competitiveness of the dairy industry in the new era. We improve the production management system in the farms by strengthening intelligent management technology and integrate technology into the efficient management of farms. In this way, the collection, integration and management of planting, dairy farming, milk source processing and consumer insights can be realized, and the visualization of operations and technologies and the standardization of process operations can be ensured, aiming to empower the new ecosystem of the dairy industry with efficient digitalized operations and realize the intelligent transformation of farms.

報告期內,全面統一管理平台一「一牧雲YIMU Cloud」持續穩定運行且不斷優化,聚力打造高效、便捷、智能的管理系統。作為牧場的「智慧大腦」,「一牧雲」集牛隻日常管理、技術系統監控等管理功能於一身,全面簡化數據分析與溯源過程,實現牧場數據整合、分析和預測,幫助牧場發現生產運營中存在的問題,並將解決方案植入一線生產流程,輔助一線實施,提高牧場工作效率,最終通過數據對方案和執行效果進行評估,實現牧場高度信息化協同運作。

During the reporting period, the "YIMU Cloud" system, a fully unified management platform, continued to operate stably and was continuously optimized to create an efficient, convenient and intelligent management system. As the "sapiential brain" of the farm, the YIMU Cloud integrates management functions such as daily management of cattle and technical system monitoring and comprehensively simplifies the process of data analysis and traceability, so as to realize the integration, analysis and prediction of farm data and help the farm identify problems in production and operation. It also implants the solution into the first-line production process, assists the first-line implementation, improves the working efficiency of the farm, and finally evaluates the plan and the implementation effect through data, so as to realize the highly information-based collaborative operation of the farm.



DBI (數據分析) DBI (Data Analysis)

- 實時監控全群牛頭數、成母牛懷孕率、乳房炎發病率、泌乳牛平均單產等;
 Real-time monitoring of the number of cows in the herd, the pregnancy rate of milkable cows, the incidence of mastitis, and the average unit production of lactating cows;
- 高效管理牛群結構、繁殖管理、健康管理、飼餵管理、產奶管理、犢牛管理。
 Efficient management of herd structure, reproduction management, health management, feeding management, milk production management and calving management.

DAPI(奶廳智能連接系統)

DAPI (Intelligent Connectivity System for Milking Parlors)

- 通過一牧雲奶廳智能接口專利技術與現有奶廳系統進行對接,實現智能連接;
 Connecting with the systems in existing milking parlors through YIMU Cloud's patented milking parlor intelligent connection technology to realize intelligent connection;
- 實現集團自動測產覆蓋,通過一牧雲平台進行牛隻產奶、擠奶設備數據分析、混群監測等,並 與奶廳供應商合作解決識別和計量問題。 Realize the coverage of automatic production measurement within the Group, carry out cow milk production, milking equipment data analysis, mixed group monitoring, etc. through the YIMU Cloud platform, and cooperate with milk parlor suppliers to solve identification and measurement problems.

DFeed(精準飼餵)

DFeed (Precise Feeding)

- 前端集綜合精準拌料、精準投料、剩料處理和庫存管理功能於一體; The front end integrates precise mixing, precise feeding, leftover disposal and inventory management;
- 6端通過設備監控、實施評估、流程優化和數據分析對每隻牛定制適合自身狀況的餵養方法, 保障牛群採食穩定。
 - The back end customizes the feeding method for each cow through equipment monitoring, evaluation, process optimization and data analysis, to ensure stable feeding of cattle.

DWeb(生產管理) DWeb (Production Management)

- 整合不同牧場使用的發情監測、精準飼餵、溫濕度控制等系統來,打破牧場「信息孤島」,建立 高效的信息採集體系;
 - Breaking the dilemma of our farms being the "information isolated island" and establishing an efficient information collection system by integrating the systems for monitoring cows in heat, precise feeding, and temperature and humidity control used on our farms;
- 規範的牛群動態檔案,實現牛隻個體管理、群體管理、繁殖管理、精準飼餵管理、健康管理、 產奶管理等;
 - With standardized dynamic herd file, we have realized individual cattle management, herd management, reproduction management, precise feeding management, health management, milk production management, etc.;
- 依托健康管理,獸醫在診治牛隻時,可以結合參考歷史處方記錄進行電子處方錄入,確保處方 用藥準確的同時,積極推行無紙化生產辦公。
 - With the help of health management, veterinarians will be able to write prescriptions electronically with reference to historical prescription records when treating our cattle, so as to ensure the accuracy of prescriptions and medication, while achieving paperless production and office work.

DSmart(移動應用) DSmart (Mobile Application)

- 應用掃描棒掃描牛隻電子耳標進行同期處理,APP界面自動提示該頭牛隻所需處理方式,節省 了人工尋找標記牛隻再按需操作的步驟,是實現高效管理的稱為「牛舍工作導航儀」。

With the so-called "Barn Navigator", we use a scanning stick to scan the cattle's electronic ear tags, and the APP will automatically suggest the required treatment, saving us from the manual search for the target cattle, thus helping us achieve efficiency.

DWeight(牛群自動稱重系統) DWeight (Automatic Herd Weighing System)

自動獲取犢牛稱重數據,並進行系統邏輯卡控,提高牛隻體重數據準確性,避免人工錄入過程中可能產生的誤差,同時方便員工操作。

Automatically obtain calf weighing data, and carry out system logic card control to improve the accuracy of cattle weight data, avoid errors that may occur in the manual input process, and facilitate the operation of employees.

牛群自動體況評分系統

Herd Automatic Body Condition Scoring System

- 根據牛的髖關節、坐骨結節、腰椎橫突末端以及牛尾根部影窩等關鍵部位的的形態特點進行體 况評分,保證牛隻健康形態。

The body condition is rated according to the morphological characteristics of key parts such as the hip joint, ischial tubercle, the end of the lumbar transverse process, and the shadow socket at the root of the cow's tail, so as to ensure the healthy shape of the cattle.

1.2 促進生態循環

Promote Ecological Cycle

現代牧業充分認識到乳業的發展與生態環境息息相關,堅持可持續發展理念,將環境責任落實到生產運營的方方面面,積極踐行循環經營,通過科學選址、糞肥綜合利用、生產種養結合,打通循環經濟產業鏈條,保護牧場運營所在地社區生態系統,逐步實現牧場養殖全程無污染零排放,承擔龍頭企業社會責任。

Modern Dairy fully realizes that the development of the dairy industry is closely related to the ecological environment. We adhere to the concept of sustainable development and implement environmental responsibility in all aspects of production and operation, so as to actively practice circular operation. Through scientific site-selection, comprehensive utilization of manure, and the combination of production, planting and breeding, we open up the industrial chain of circular economy and protect the community ecosystem where the farms are located, so as to gradually realize the whole process of farm breeding without pollution and zero emissions and assume the social responsibility of a leading enterprise.

1.2.1 科學選址減少社區環境影響

Scientific Site-selection to Reduce the Environmental Impact on the Community

現代牧業在新牧場選址時,充分考慮生物多樣性保護以及對週邊自然及人文環境的影響,對選址地進行相應的環境及社區影響評估,並採取一系列應對措施以減少對週邊環境及社區的影響,避免相關爭議與 風險發生:

When selecting a site for a new farm, Modern Dairy will fully consider biodiversity protection and the impact on the surrounding natural and human environment, conduct corresponding environmental and community impact assessments on the site selection, and take a series of countermeasures to reduce the impact on the surrounding environment and communities and avoid related disputes and risks:

減少對社區影響 Reduce the impact on the community

- 在新牧場選之前,須對其選址所在地社區和傳統土地使用的影響進行評估,避免因此帶來的相關風險:
 Before selecting a site for a new farm, the impact on the community and traditions and land use where it is located must be assessed to avoid the associated risks;
- 各牧場均須獲得當地土地使用許可批覆及相關部門規模化畜禽養殖備案等批覆文件,保證土地使用權利合法合規; Each farm must obtain the approval of the local land use permit and the relevant departments for the record of large-scale livestock and poultry breeding and other approval documents to ensure that the land use rights are legal and compliant;
- 涉及到土地承包轉讓情況的,須與相關社區村民集體簽訂相關協議,明確雙方的權利與義務,尊重和保護當地居民的權利,避免爭議發生;
 In the case of land contracting and transfer, relevant agreements must be signed with the villagers in the relevant communities to clarify the rights and obligations of both parties, respect and protect the rights of local residents, and avoid disputes;
- 要求各牧場週邊環境需與居民區保持安全距離,充分考慮減少 後續施工及運營對當地人生活方式的干擾,包括減少噪聲干擾 以及施工運營、後續生產運營帶來的交通等基礎設施的干擾 等,並定期舉行會議討論運營對當地居民的影響,以便適時對 生產運營方針做出調整。報告期內,未發生因噪音干擾、交通 運輸干擾帶來的投訴等事件。

It is required that the surrounding environment of each farm should be kept at a safe distance from the residential area, full consideration should be given to reducing the interference of subsequent construction and operation on the lifestyle of local people, including reducing noise interference and the interference of infrastructure such as traffic caused by construction and operation and the subsequent production and operation activities, and regular meetings should be held to discuss the impact of operations on local residents, so that adjustments to production and operation policies can be made in a timely manner. During the reporting period, there were no complaints due to noise disturbance or traffic disturbance.

減少對環境影響 Reduce environmental impact

- 堅持不在自然保護區、文物保護區、世界遺產地等敏感地點進行運營的原則;
 - Adhere to the principle of not operating in sensitive locations such as nature reserves, cultural relics reserves, and world heritage sites;
- 減少對大氣環境影響的原則。重點分析揚塵、廢氣、惡臭排放 對週邊環境的影響,通過嚴格控制排放標準、監測排放量、加 強綠化隔離帶及無干擾區建設、優化牧場廢氣處理系統等措施 減少對大氣環境的影響;

Principles of reducing the impact on the atmospheric environment. Focus on analyzing the impact of dust, waste gas, and odour emissions on the surrounding environment, and reduce the impact on the atmospheric environment by strictly controlling emission standards, monitoring emissions, strengthening the construction of green isolation belts and no-disturbance areas, and optimizing ranch exhaust gas treatment systems;

- 減少對水環境影響的原則。要求各牧場週邊環境需與居民區保持安全距離,遠離居民污水排放口及存在污染的工廠,避免風險叠加,同時優化佈局建造廢水循環利用系統,避免廢水外排對水環境造成影響;

Principles of reducing impacts on the water environment. It is required that the surrounding environment of each farm should be kept at a safe distance from the residential area, away from residential sewage discharge outlets and polluting factories, to avoid the superposition of risks, while optimizing the layout and building a waste water recycling system to avoid the impact of waste water discharge on the water environment;

- 減少對土壤環境質量影響的原則。各牧場對土壤環境質量評價標準執行《土壤環境質量建設用地土壤污染風險管控標準(試行)》(GB36600-2018)中建設用地土壤污染風險第二類用地篩選值,確保項目擬建地點周圍大氣及土壤的環境現狀良好:

Principles of reducing impacts on soil environmental quality. Each farm shall implement the second type of land use screening value for soil pollution risk of construction land as set out in the Soil Environmental Quality – Construction Land Soil Pollution Risk Control Standards (Trial) (GB36600–2018) for the soil environmental quality evaluation standards to ensure that the environmental status of the atmosphere and soil around the proposed project site is good;

- 減少對生態環境影響的原則。確保各牧場佔地面積內無國家和 地方保護物種且不佔用森林面積,避免森林砍伐情況的出現, 項目建成後通過綠化工程等措施,最大程度減緩對生態環境的 影響。

The principle of reducing the impact on the ecological environment. To ensure that there are no national and local protected species and no forest area within the land area of each farm and there is no deforestation. After the project is completed, measures such as greening projects will be adopted to minimize the impact on the ecological environment.

1.2.2 循環再生保護生物多樣性

Recycling and Conserving Biodiversity

現代牧業一直以來秉承「環保優先、服務當地、發展帶動」的理念,堅持發展「牛糞發酵-優質沼肥-青貯施肥-回購青貯」的生態農業循環模式,走出了一條環保、生態、效益相結合的創新之路,通過「能源生態型」糞污處理工藝,建設能源自給、資源循環利用的現代高效牧場,實現真正可持續的綠色循環經濟。 Modern Dairy has always been adhering to the concept of "environmental protection first, serving the local area and driving development", insists on developing an eco-agricultural economy featuring the cycle of "Cow Manure Fermentation – Quality Manure Fertilizer – Silage Fertilization – Silage Repurchase", and has successfully paved an innovative way integrating environmental protection, eco-friendliness and profitability in manure treatment. Through the "energy-ecological" manure treatment process, we have built modern and efficient farms with self-sufficient energy and resource recycling, realizing a truly sustainable green circular economy.



生態修復

Ecological Restoration

現代牧業各牧場向生產運營所在地週邊農田輸送的有機肥具有蓄水、節約用水、減少水分流失與蒸發、減輕乾旱的作用,並有效減少化肥施用,減輕了鹽鹼損害,起到調理土壤、激活土壤中微生物活躍率的作用,同時還可克服土壤板結、增加土壤空氣通透性,達到有效促進土壤改良,修復當地生態系統從而促進生物多樣性的目的。公司各牧場積極加強管道建設,持續輸送有機肥,實現對當地土壤的修復,在不同程度上對當地生態系統起到了積極作用,進一步保護生物多樣性,推動可持續農業發展。

The organic fertilizers delivered by the farms of Modern Dairy to the surrounding farmland where the production and operation are located can store water, save water, reduce water loss and evaporation and alleviate drought, and can effectively reduce the application of chemical fertilizers and reduce the damage of salinity, playing the role of conditioning the soil and activating the activity rate of microorganisms in the soil. Such organic fertilizers can also overcome soil compaction and increase soil air permeability, so as to effectively promote soil improvement and restore local ecosystems to promote biodiversity. The Company's farms are actively strengthening pipeline construction to continuously deliver organic fertilizers and achieve local soil restoration, which has played a positive role in the local ecosystem to varying degrees, further protects biodiversity and promotes sustainable agriculture.

案例 Case study

和林牧場糞肥綜合利用與生態修復項目

Manure comprehensive utilization and ecological restoration project in Helingeer Farm

和林牧場年產糞肥21萬方,其開展糞肥還田綜合利用及生態修復項目,合作簽約種植青貯玉米26,500畝,並向種植地全面輸送有機肥,有效改善當地土質,解決當地土壤板結惡化的情況,對當地生態修復帶來了持續性積極影響,有效治理當地生態問題,保護生物物種多樣性,形成了種養問題,保護生物物種多樣性,形成了種養問期代綠色畜牧業產業體系,實現了「牛-糞-草」綠色循環經濟模式。



Helingeer Farm has an annual output of 210,000 cubic meters of manure. It carries out comprehensive utilization of manure and ecological restoration projects, and has signed contracts to plant 26,500 mu of silage corn. Helingeer Farm comprehensively delivers organic fertilizers to the planting land, effectively improving the local soil quality and solving the local soil compaction and deterioration. These projects have brought a lasting positive impact on local ecological restoration, effectively managed local ecological problems, protected biological species diversity, and has formed a modern and green animal husbandry industry system with relatively balanced planting and breeding, symbiotic interaction between farming and animal husbandry, and a good ecological cycle realizing the "cow – dung – grass" green circular economy model.

生態循環

Ecological Circulation

現代牧業立足「資源化循環利用」目標,構建「飼草種植-奶牛養殖-糞污處理-沼氣發電-糞肥還田」的 綠色循環產業鏈條。公司將糞污處理作為生產經營中的重要環節,並持續加強糞污管理水平,不斷升級 擴大糞污回收利用規模,以更持續的方式處理糞便。目前各牧場配套大型沼氣發電設施和沼肥綜合利用 設施,採用沼氣發酵無害化處理模式與技術,建設糞污中溫厭氧發酵無害化處理系統。該系統通過處理 牛糞實現沼氣發電、沼渣回收利用、有機肥還田的綜合利用,每年直接效益可達2億元,可減少碳排放 37.3萬噸/年,碳交易潛力價值746萬元,實現了生產過程中再生能源的循環利用,打造生態農業循環經 濟。報告期內,現代牧業有機肥還田量達569萬噸,沼氣發電2,939萬kWh,沼氣產生蒸汽37.05萬噸,產 生沼渣200.45萬方,且產生的沼渣全部作為墊料回收利用。

Based on the goal of "resource recycling", Modern Dairy builds a green cycling industrial chain of "grass growing - cow breeding - manure treatment - power generation with biogas - soil fertilization with organic waste". The Company regards manure treatment as an important link in production and operation, and continues to strengthen the management of manure, continuously upgrades and expands the scale of manure recycling and disposes of manure in a more sustainable manner. At present, each farm is equipped with large-scale biogas power generation facilities and facilities for comprehensive utilization of biogas fertilizer, adopts the harmless treatment mode and technologies of biogas fermentation, and builds a harmless treatment system for mesothermal anaerobic fermentation of manure. The system realizes the comprehensive utilization of biogas power generation, solid manure recycling and organic fertilizer returning to fields by processing cow dung. The annual direct benefits can reach RMB200 million, reducing carbon emissions by 373,000 tons per year, and the carbon trading potential value is RMB7.46 million, realizing the recycling of renewable energy in the production process and creating an eco-agriculture circular economy. During the reporting period, we produced a total of 5,690,000 tons of manure fertilizers returning to fields, generated electricity of 29,390,000 kWh with biogas, produced 370,500 tons of steam with biogas, and 2,004,500 m³ of solid manure, and all the produced solid manure has been recycled as bedding materials.

• 有機肥還田:

Returning Organic Fertilizers to the Fields:

- 推廣沼肥應用。我們採取龍頭企業加種植基地的運作模式,與週邊經營主體建立產業化聯合 體,形成「牛-沼-肥-果/菜/草/糧」生態循環生產模式,實現「化肥零增長目標」。我們鼓 勵合作戶開發多元化沼肥利用新模式,提高種植效益,主動將沼肥作為寶貴資源進行利用,在 有機肥代替化肥的目標上着重發力。公司各牧場相繼取得循環經濟龍頭企業稱號,現代牧業 (集團)有限公司也成為國家級循環經濟龍頭企業,公司各牧場已列入循環經濟示範牧場; Promoting the application of manure fertilizer. We adopted the operation model of "leading enterprises plus planting bases" and established an industrial consortium with operating entities in the surroundings, forming an ecological cycling production model featured with "cows - biogas - fertilizer - fruits/vegetable/grass/crop" and realizing the goal of zero-growth in chemical fertilizer consumption. We encouraged partners to develop a diversified and new utilisation model of biogas fertilizer so as to improve the effectiveness of planting, to treat biogas fertilizer as precious resources and to actively make use of it and to focus on the goal of replacing chemical fertilizer with organic ones. All farms of the Company had been successively awarded the title of "cycling economic leading enterprise", and Modern Farming (Group) Co., Ltd. had also become a national cycling economic leading enterprise. Furthermore, all of our farms had been included in the pilot demonstration farms;
- 加大管道建設。各牧場加強鋪設有機化肥輸送管道,實現了以「田成方、土成型、渠成網、路相通、溝相連、土壤肥、旱能灌、澇能排、無污染、產量高」的標準安全施肥保量糧田建設; Increasing investment in pipeline construction. Each farm has been strengthening the construction of organic fertilizer pipelines, representing the accomplishment of construction of the farmland which features "square plots, shaped earth, networked canals, connected road and ditches, fertilized soil, irrigation in case of drought, drainage in case of flood, no pollution, and high yield";
- 運行實施糞肥還田APP。通過APP,進一步規範了土地資源、車輛手續等,做到糞肥還田農戶 驗收、牧場人員監管的雙向管理,在糞肥產出、運輸、GPS定位、線上管理、按需施肥等環節 形成閉環管理。
 - Running the "Manure Fertilizer Return to Field" APP. With the application, we further standardized the utilization of land resources and vehicle procedures, with a two-way control of the manure returned to field, receipt by farmers and supervision by farm staff, enabling closed-loop management of such processes as manure production, transportation, GPS positioning, online management, and fertilization on demand.

沼氣發電:

Biogas Power Generation:

- 運行沼氣發電用於發電機組和沼氣鍋爐使用。發酵池產氣均匀穩定,發電機可實現併網發電; Biogas can be used in generator sets and boilers as the fermenter produces biogas steadily, and the generator can hook up with the national grid for power supply;
- 沼氣鍋爐的蒸汽用於發酵池內盤管加熱、擠奶廳供熱和牛奶加工車間供熱。
 The steam from the biogas boiler is used to heat the coils in the fermenter, to warm up the milking parlor and the milk processing plant.

• 沼渣回收利用:

Solid Manure Recycling:

- 發酵池出料經固液分離並達到指定的水分要求後,使用臥床拋料車回填於牛舍內的臥床; After the discharge of the fermentation tank is subjected to solid-liquid separation and meets the specified moisture requirements, it is backfilled to the bed in the barn using a bedding thrower;
- 通過定期翻刨並補充沼渣來改善牛舍臥床環境,其殺菌效果、舒適度及經濟成本遠遠優於其他 執料。

The bedding is regularly turned and replenished to improve the bedding condition, with its bactericidal effect, comfort and economic cost far better than other bedding materials.

案例 Case study

洪雅牧場糞肥綜合利用

Comprehensive utilization of manure in Hongya Farm

洪雅牧場探索發展「養殖戶+綜合處理中心+種植基地」的糞肥還田PPP模式,建設糞肥前置處理和發酵中心、糞肥管網的走向、現代牧業種植園,先後整合項目資金6,000多萬鋪設沼液管網600公里,覆蓋8個鄉鎮6萬畝種植基地,通過沼液還田,農產品品質得到有效提升,同時農業面源污染得到有效的治理,形成了洪雅「三位一體」種養循環綠色發展的成熟模式。

Hongya Farm explores and develops the manure-returning-to-fields PPP model of "farmers + comprehensive processing



centers + planting bases". It built manure pre-treatment and fermentation centers, manure pipeline networks and plantations of Modern Dairy, and successively raised project funds of more than RMB60 million to lay 600 kilometers of biogas slurry pipeline network, covering 60,000 mu of planting bases in eight townships. Through the return of biogas slurry to the fields, the quality of agricultural products has been effectively improved, and at the same time, agricultural non-point source pollution has been effectively controlled, forming a mature model for the green development of the "three-in-one" planting and breeding cycle of Hongya Farm.

報告期內,洪雅牧場積極開展糞污資源化利用交流與研究,參與全省畜禽糞污資源化利用工作推進會,會議組織參會人員深入洪雅現代牧場、萬畝零化肥零化學農藥試驗示範區、借鑒學習畜禽糞污資源化利用、種養循環和第三方運營創新模式。

During the reporting period, Hongya Farm actively carried out exchanges and research on the utilization of manure resources, and participated in the promotion meeting for the utilization of livestock and poultry manure resources in the province. The conference organized participants to visit Hongya Modern Farm and the 10,000-mu Zero Chemical Fertilizer and Zero Chemical Pesticide Pilot Demonstration Zone, and learn from the resource utilization of livestock and poultry manure, planting and breeding cycles and third-party operation innovation models.

案例 Case study

寶雞牧場糞肥綜合利用項目

Manure comprehensive utilization project of Baoji Farm

寶雞牧場週邊主要作物是獼猴桃和苗木,覆蓋面積廣。寶雞牧場自建場以來就與週邊 植基地進行糞肥還田合作,施肥效果顯顯 網,輻射土地面積10,000餘畝。根據橫 網,輻射土地面積10,000餘畝。根據橫 子站、農業服務中心調查數據顯示, 獨猴桃樹畝產1萬斤,施用糞肥後獼。 量可增收10%-15%,畝產增收800斤 還田技術不僅促進農業綠色種養循環, 網猴桃樹的種植也起到有效促進碳中和,緩 解氣候變化的作用。



The main crops around Baoji Farm are

kiwifruit and seedlings, which cover a wide area. Since its establishment, Baoji Farm has cooperated with surrounding planting bases on manure returning to fields, and the fertilization effect is remarkable. In order to expand the coverage area of fertilization, Baoji Farm has constructed two pipeline networks, covering an area of more than 10,000 mu. According to the survey data of the seed station and agricultural service center in Hengqu, the kiwifruit trees yield 10,000 kilograms per mu in the prosperous fruit period, and the yield of kiwifruit can be increased by 10%–15% after applying manure, and the yield per mu will increase by 800 kilograms. The technology of returning manure to the field not only promotes the green farming cycle of agriculture, but the planting of kiwifruit trees also plays an effective role in promoting carbon neutrality and mitigating climate change.

1.3 應對氣候變化

Addressing Climate Change

積極應對氣候變化是我們在可持續發展路上必須面對的關鍵議題。為落實《聯合國2030年可持續發展議程》,響應國家「碳達峰、碳中和」政策,應對氣候變化帶來的風險,我們從多角度入手,有效識別因氣候變化帶來的生產經營風險,並制定極端天氣應對辦法,下發《現代牧業關於加強春季安全風險防控工作的通知》、《現代牧業安環中心關於做好環保安全、防洪防汛預警工作的通知》、《現代牧業安環中心設備能源中心關於下發的通知》、《關於做好大風降溫降雨風險防控工作的通知》等相關文件,持續加強牧場運營面臨的環境和社會風險的前瞻預警。此外,公司將在2022年參與CDP 2021財年氣候變化問卷的填寫,進一步加強氣候變化情景分析的披露,提高對氣候變化風險的防範與應對。

Actively addressing climate change is a key topic we must face on the road to sustainable development. In order to implement the United Nations 2030 Agenda for Sustainable Development, respond to the national policy of "carbon peaking and carbon neutrality" and address the risks brought by climate change, we effectively identified production and operation risks caused by climate change from multiple perspectives, and formulated measures to deal with extreme weather and issued the Notice of Modern Dairy on Strengthening Spring Safety Risk Prevention and Control, the Notice of Modern Dairy Safety and Environment Center on Environmental Protection and Safety, Flood Control and Flood Control Early Warning, the Notice of Safety Environment Center and Equipment Energy Center of Modern Dairy on Issuance, the Notice on the Prevention and Control of High Wind, Cooling and Rainfall Risks and other relevant documents to continue to strengthen the forward-looking warning of environmental and social risks faced by farm operations. In addition, the Company will participate in CDP's FY 2021 Climate Change Questionnaire in 2022 to further strengthen the disclosure of climate change scenario analysis and improve the prevention and response to climate change risks.

氣候變化風險識別

Identification of Climate Change Risks

為了應對氣候變化帶來的風險,公司從生產運營的內外部環境、相關方風險因素等多角度出發,對氣候變化可能引發的關鍵風險進行了積極識別。針對因氣候變化帶來的突發風險以及潛在風險,我們積極做好預防及應對措施,將氣候變化引發的風險降到最低。報告期內,未發生氣候風險給公司帶來嚴重財務損失的事件。此外,公司各牧場牛隻為自有繁殖,不涉及因從供應商處採購而造成森林砍伐的風險。

In order to cope with the risks brought by climate change, the Company has actively identified the key risks that may be caused by climate change from the perspectives of the internal and external environment of production and operation and risk factors of related parties. In response to the sudden and potential risks caused by climate change, we actively take preventive measures and countermeasures to minimize the risks caused by climate change. During the reporting period, there was no incident in which climate risks brought serious financial losses to the Company. In addition, cattle in the Company's farms are self-propagating and do not involve the risk of deforestation caused by sourcing from suppliers.

氣候變化風險與機遇 Risks and Opportunities from Climate Change

轉型

Transformation

中國宣佈二氧化碳排放力爭2030年前「達峰」、力爭2060年前實現「碳中和」的總體目標,隨着碳中和等環境政策的出台,整個經濟社會正在朝綠色低碳轉型,公司高度重視低碳種養結合、發展綠色循環牧場帶來的市場機遇。因此,公司堅持構建「飼草種植 - 奶牛養殖 - 糞污處理 - 沼氣發電 - 糞肥還田」的綠色循環產業鏈條,發展生態循環經濟模式,同時不斷提升低碳運營管理水平,有效降低高能耗帶來的運營成本增加、環境監管等風險。

China has announced that it will strive to "peak" by 2030 and achieve the overall goal of "carbon neutrality" by 2060 in terms of carbon dioxide emissions. With the introduction of environmental policies such as carbon neutrality, the entire economy and society are transforming towards green and low-carbon development. The Company attaches great importance to the market opportunities brought by the low-carbon planting and breeding and the development of green cycling farms. Therefore, the Company adheres to the development of a green cycling industrial chain of "grass growing – cow breeding – manure treatment – power generation with biogas – soil fertilization with organic waste" to develop the ecological circular economy model and continuously improves the level of low-carbon operation and management, thereby effectively reducing the risks of increased operating costs and environmental supervision caused by high energy consumption.

實體 Entities

極端天氣事件和重大自然災害可能引起各運營地設備、基礎設施損壞、牛應激反應、牛隻損失、供應鏈中斷或採購成本增加等一系列風險,對員工的生命、健康安全構成威脅,對公司的正常生產、經營秩序產生重大影響。

Extreme weather events and major natural disasters may cause a series of risks such as equipment damage, infrastructure damage, cattle's stress response, cattle loss, supply chain disruption or increased procurement costs, which will pose a threat to the life, health and safety of our employees and have a significant impact on the Company's normal production and business order.

• 突發風險識別與應對

Identifying and Responding to Emergencies

- 應對災害天氣帶來的生產經營風險 Addressing production and operation risks caused by disastrous weather

火災、大風、雷雨等一系列極端天氣模式波動情況,可能導致道路阻塞、突發停電、造成重大 交通事故等多種影響生產經營活動的風險。公司積極完善重大災害應急響應機制,並對防火、 防大風、防雷、防暴雨防洪四類天氣災害進行了全面部署工作,制定多項預防及保障措施: A series of extreme weather such as fires, strong winds and thunderstorms may lead to various

A series of extreme weather such as fires, strong winds and thunderstorms may lead to various risks affecting production and operation activities, such as road blockages, sudden power outages and major traffic accidents. The Company actively improves the emergency response mechanism for major disasters, and has made comprehensive arrangements for four types of weather disasters (fire, strong wind, lightning and rainstorm and flood), and formulated a number of preventive measures and safeguards:

防火災 Fire	• 充分考慮春季物燥風大、火災易發、蔓延迅速、後果嚴重的特點,按照火災「三要素」,即管控可燃物、點火源和助燃物的思路,通過「五級檢索」和「專項檢查」進行地毯式風險防控和隱患整改。 Fully consider the characteristics of dryness and wind, fire-prone, rapid spread and serious consequences of fire in spring, and carry out carpet-style risk prevention and rectification according to the "three elements" of fire (control of combustibles, ignition sources and combustion aids) and through "five-level search" and "special inspection".
防大風 Strong Wind	• 完善《建築屋面防風防雨檢查要求》,對場區建構築物、建築屋面檐口、進行檢查驗證和維修維護; Improve the Inspection Requirements for Wind and Rain Protection of Building Roofs, and carry out inspection, verification, maintenance and repair of construction sites and building roof cornices;
	 拆除所有倒塌風險的廢棄建築,防止重大安全事故發生。 Demolish all abandoned buildings at risk of collapse to prevent major safety incidents.
防雷 Lightning	• 完善《防雷減災管理辦法》,定期監測防雷裝置,避免因此發生的重大安全事故。 Improve the Measures for the Management of Lightning Protection and Disaster Reduction and regularly monitor lightning protection devices to avoid major safety accidents.

防暴雨防洪 Rainstorm and Flood

- 監控暴雨、洪水等氣象信息,及時做好防控及部署;
 Monitor meteorological information such as rainstorms and floods, and make timely prevention and control and deployment;
- 對雨水排放系統進行全面排查,檢修更換開裂和脱落的管線;
 Conduct a comprehensive inspection of the rainwater drainage system, repair and replace cracked and fallen pipelines;
- 確保建築基礎無空洞、散水無塌陷;
 To ensure that the building foundation has no voids and the aprons do not collapse;
- 對應急發電機組進行啟動實驗,驗證應急電源系統功能完好性和場房電氣系統匹配性。做好極端天氣造成突發停電狀態下的應急管理工作,保障緊急狀態下牧場應急供電,避免造成供電中斷風險。 Carry out start-up experiments on the emergency generator set to verify the functional integrity of the emergency power system and the compatibility of the electrical system of the terminal. Prepare the emergency management work in the state of sudden power outage caused by extreme weather, and ensure the emergency power supply of the farm in the emergency state, so as to avoid the risk of power supply interruption.

- 應對極端天氣導致的牛應激反應風險 Addressing the risk of cattle stress response from extreme weather

熱應激是常見的牛群應激反應,是導致奶牛產奶量和繁殖率下降的重要因素。為了緩解和減少極端天氣導致的奶牛應激反應而造成的生產經營影響,或減少由於氣候變化而導致的溫度升高和變異對頭牛生產力及死亡率的影響,現代牧業採取以下措施:

Heat stress is a common herd stress response and is an important factor leading to the decline of milk production and the reproductive rate of dairy cows. In order to alleviate and reduce the impact on production and operation caused by the stress response of dairy cows caused by extreme weather, or reduce the impact of temperature increase and variability caused by climate change on the productivity and mortality of head cattle, Modern Dairy has taken the following measures:

- 進一步健全牛舍降溫系統,為奶牛創造良好的生存環境,阻塞外部熱源進入牛舍和運動場,促進牛舍內熱量和水分向外排除;
 - Further improve the cowshed cooling system to create a good living environment for dairy cows, block external heat sources from entering the cowshed and sports field, and promote the heat and moisture in the cowshed to be discharged to the outside;
- 在不影響通風的情況下,在牛舍周圍種植樹木庇蔭,降低熱量輸送; Plant shade trees around the barn to reduce heat transfer without affecting ventilation;
- 依據科學的密度在採食區、待擠廳、擠奶廳和專門的降溫工作間安裝噴淋降溫系統和風機,並根據實際調整使用情況:
 Install spray cooling systems and fans in feeding areas, waiting halls, milking halls and special cooling workshops according to scientific density, and adjust their usage according to actual conditions;
- 不斷調整和優化飼料結構及餵養技術,盡量減少或抑制與產奶無關的熱量產生。
 Continuously adjust and optimize feed structure and feeding techniques to minimize or suppress heat production unrelated to milk production.

• 潛在風險識別與應對

Identifying and Responding to Potential Risks

- 應對因氣候變化造成的飼料供應中斷和價格波動的風險 Addressing risks of feed supply disruptions and price volatility due to climate change

青貯等飼草料種植受氣候變化影響較大,現代牧業採取多種措施應對因氣候變化可能造成的飼料供應中斷及價格波動的風險。現代牧業創新採用「牧草種植、奶牛養殖、牛奶加工一體化」全產業鏈模式,有效保證飼草料供應:現代牧業各牧場分佈較為廣泛,因此受局部地區氣候變化影響較小,公司在遵循本地化採購政策的同時,全面聯動各地供應商,保證應急供應:公司制定戰略儲備與集中儲備計劃,避免出現因氣候變化造成的供應中斷情況:同時公司定期舉行大宗原料行情分析會,分析因氣候變化帶來的市場行情波動,從而更好地把握採購節點,降低因氣候變化造成的飼料供應價格波動風險。

The cultivation of forages such as silage is greatly affected by climate change. Modern Dairy takes various measures to deal with the risks of feed supply interruption and price fluctuations that may be caused by climate change. Modern Dairy innovatively adopts the production model of "integration of forage planting, dairy farming and milk processing" that covers the whole industry chain to effectively ensure the supply of forage. The farms of Modern Dairy are widely distributed, so they are less affected by climate change in local areas. While following the localized procurement policy, the Company comprehensively links suppliers from all over the world to ensure emergency supply. The Company develops a strategic plan for centralized reserves to avoid supply disruptions due to climate change. At the same time, the Company regularly holds market analysis meetings for bulk raw materials to analyze market fluctuations caused by climate change, so as to better grasp the procurement node and reduce the risk of price fluctuations in feed supply caused by climate change.

- 應對因氣候變化造成的獸醫和藥品成本增加的風險 Addressing the risks of increased veterinary and pharmaceutical costs due to climate change

公司採購部與各職能部門共同討論、修訂和完善藥品採購目錄,定期對同類藥品進行試驗對比分析,優選可替代藥品,並將可滿足使用需求的藥品種類納入到採購目錄中,與藥品供應商建立長期採購合作,降低藥品價格波動影響;加強獸醫人才儲備隊伍,保證各牧場獸醫配備;根據氣候變化情況實時監測奶牛健康狀況,採取有效措施降低奶牛相關發病率,從源頭減少藥品使用。

The Company's Purchasing Department, together with other functional departments, discusses, revises and improves the drug procurement catalogue and conducts tests and comparative analysis of similar drugs on a regular basis to select alternative drugs. They will include the types of drugs that can meet the needs of use in the procurement catalogue, and establish long-term procurement cooperation with drug suppliers to reduce the impact of drug price fluctuations. We will strengthen the veterinary talent reserve team to ensure that each farm is equipped with veterinarians, and take effective measures according to the climate change situation and real-time monitoring of the health status of dairy cows to reduce the incidence of dairy cows and reduce the use of drugs from the source.

1.4 低碳綠色運營

Low-carbon and Green Operation

現代牧業貫徹綠色發展理念、履行社會責任,強化低碳綠色運營理念。公司嚴格遵循運營所在地出台的《中華人民共和國環境保護法》、《畜禽規模養殖污染防治條例》、《中華人民共和國大氣污染防治法》、《中華人民共和國水污染防治法》、《中華人民共和國水污染防治法》、《中華人民共和國水污染防治法》等法律和《城鎮排水與污水處理條例》、《水污染治法實施細則》、《消耗臭氧層物質管理條例》及《建設項目環境保護管理條例》等行政法規。公司制定了《現代牧業能源系統管理制度》及《燃油管理制度》等制度體系,並將環境管理體系及環境保護政策落實到位,在生產經營、提供產品、物流運輸、供應商選擇與合作等方面遵循環境保護原則,並在企業及業務經營的各個環節均採取了有效措施,開展節能減排工作,從而促進經濟效益、社會效益與環境效益同步增長。

Modern Dairy implements the concept of green development, fulfills its social responsibilities, and strengthens the concept of low-carbon and green operation. The Company strictly abides by laws such as the Environmental Protection Law of the People's Republic of China, the Regulations on the Prevention and Control of Pollution from Large-scale Livestock and Poultry Breeding, the Air Pollution Prevention and Control Law of the People's Republic of China, the Water Pollution Prevention and Control Law of the People's Republic of China, the Water Law of the People's Republic of China, the Environmental Impact Assessment Law of the People's Republic of China and the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste and other administrative regulations such as the Regulations on Urban Drainage and Sewage Treatment, the Detailed Rules for the Implementation of the Water Pollution Control Law, the Ozone-Depleting Substances Regulations and the Regulations on Environmental Protection Management of Construction Projects issued by the place where it operates. The Company has formulated the Energy System Management System of Modern Dairy, the Fuel Management System and other systems, and has put the environmental management system and environmental protection policies in place. We follow the principles of environmental protection in production and operations, product provision, logistics and transportation, supplier selection and cooperation, and have taken effective measures in all aspects of enterprise and business operations to carry out energy conservation and emission reduction work, thereby promoting the simultaneous growth of economic, social and environmental benefits.

報告期內,本公司未發生因環境違規而導致的訴訟及相應處罰。

During the reporting period, the Company did not experience any lawsuits and corresponding penalties due to environmental violations.

1.4.1 節約資源精細使用

Conservation and Careful Use of Resources

現代牧業致力於不斷完善能源、資源使用結構,完善資源用量相關管控制度,並通過設立節能降耗目標、優化能源使用結構、加強設備升級、技術替代改良等多種措施在全運營地範圍內減少對水、電、煤、柴油等資源的耗用,進一步加強環境管理水平。公司加強能耗管理監督,通過實施檢測及月度評比等方式,提高管理水平。我們宣傳綠色辦公,開展一系列環保主題教育活動,培養員工節能意識,將節能舉措貫徹落實到基層。

Modern Dairy is committed to continuously improving the structure of energy and resource use, and improving the management and control system related to resource consumption. We have reduced the consumption of water, electricity, coal, diesel and other resources in the entire operating area through various measures such as setting energy-saving and consumption-reducing goals, optimizing the energy use structure, strengthening equipment upgrades, and technology substitution and improvement, so as to further strengthen the level of environmental management. The Company strengthens the management and supervision of energy consumption, and improves the management level by implementing inspections and monthly evaluations. We promote green office and carry out a series of environmental protection themed education activities to cultivate employees' awareness of energy conservation and implement energy conservation measures at the grassroots level.

環境管理體系

Environmental Management System

公司各牧場建立並持續完善ISO 14001環境管理體系,目前已有14家法人單位順利通過ISO 14001環境管理體系認證,各牧場積極爭取獲得更廣泛的環境管理認證,不斷提高環境管理水平。

The Company's farms have established and continued to improve the ISO 14001 environmental management system. At present, 14 legal entities have successfully passed the ISO 14001 environmental management system certification, and all the farms are actively striving to obtain a wider range of environmental management certifications and continuously improve the level of environmental management.

制定降耗目標

Setting Consumption Reduction Goals

為持續監控資源使用情況,進一步強化低碳環保運營水平,公司對資源消耗數據走勢進行分析,制定了 相對科學的降耗目標:

In order to continuously monitor the use of resources and further strengthen the level of low-carbon and environmental protection operations, the Company analyzes the trend of resource consumption data and formulates scientific consumption reduction goals:

降低能耗目標 Energy reduction target	 以2020年為基準,到2030年,逐年降低單噸產品電耗、單噸天然氣、單噸蒸汽耗用,並限定目標值。 Taking 2020 as the benchmark, by 2030, we will reduce the power consumption per ton of products, natural gas per ton and steam consumption per ton year by year, and set target values. 以2020年為基準,到2030年,逐年提高沼氣回收利用率,加大清潔能源的使用。 Taking 2020 as the benchmark, by 2030, we will increase the recycling rate of biogas year by year and increase the use of clean energy.
降低水耗目標 Water reduction target	- 以2020年為基準,未來5年,單頭牛用水量標準保持穩定水平,並逐步推廣節水技改項目的使用。 Taking 2020 as the benchmark, in the next five years, the standard of water consumption per cow will remain stable, and the use of water-saving technical transformation projects will be gradually promoted.

能源管理

Energy Management

為提高能源使用效率,實現降耗目標,公司不斷探索更加有效的節能方法與技術,同時擴大設備優化升級改造範圍。公司積極實施了以下節能降耗舉措,並在所有相關運營地實行節能優化措施:

In order to improve the efficiency of energy use and achieve the goal of reducing consumption, the Company continuously explores more effective energy-saving methods and technologies, and at the same time expands the scope of equipment optimization and upgrading. The Company has actively implemented the following energy-saving and consumption-reducing measures, and has implemented energy-saving optimization measures in all relevant operations:

能源類型

Type of energy

節能措施

Energy-saving measures

電 Electricity

- 提高照明使用效率。各牧場將用於消毒室照明的常亮燈改造為人 體感應開關,減少不必要的能源浪費。
 - Improve lighting efficiency. The farms have transformed the always-on lights used for disinfection room lighting into human-body induction switches to reduce unnecessary energy waste.
- 綠色辦公。將公司辦公區域衛生間照明改造為LED燈,安裝紅外 感應、感光開關;明確規定全體員工在辦公地點的私人用電標 準;配備專門人員檢查下班後辦公設備的關閉情況;向全體員工 宣傳綠色辦公理念,加強綠色環保知識培訓。

Green office. Transform the bathroom lighting in the Company's office area into LED lights, and install infrared sensors and photosensitive switches; stipulate the private electricity standards for all employees in the office; assign special personnel to check the closing of office equipment after getting off work; and promote the concept of green office to all employees and strengthen the training of green environmental protection knowledge.

- 為避免集糞井出現的泵類空轉現象而造成過度耗電情況,各牧場安裝浮球簡式液位開關、遠程控制、時控開關多種控制方式。
 In order to avoid excessive power consumption caused by idling of pumps in manure wells, various control methods such as floating ball simple liquid level switch, remote control and time-controlled switch are installed in each farm.
- 為避免風冷製冷機因故障或功率問題造成大製冷機啓動時間增加現象,各牧場全面更新或修復風冷機組散熱器,加大載冷量,冬季利用風冷製冷牛奶,減少製冷機使用。
 In order to avoid the increase in the start-up time of large refrigerators caused by faults or power problems of the air-cooled refrigerators, all farms have fully updated or repaired the radiators of the air-cooled units, increased the cooling capacity, and used
- 優化能源使用結構,在各運營地推廣沼氣發電,通過沼氣回收利 用,加大清潔能源使用比例。

air cooling to cool milk and reduce the use of refrigerators.

Optimize the energy use structure, promote biogas power generation in all operating areas, and increase the proportion of clean energy use through biogas recycling.

能源類型	節能措施 Energy-saving measures		
Type of energy			
煤 Coal	在各牧場的運營中逐步取消燃煤鍋爐使用,改用沼氣、天然氣鍋爐供暖,從源頭降低煤炭使用量。		
	In the operation of each farm, the coal-fired boilers will be gradually eliminated, and biogas and natural gas boilers are used for heating, so as to reduce the consumption of coal from the source.		
	在各牧場的運營中將小奶廳巴殺機改造為電巴殺機,熱水改為太陽能加熱,做到煤炭零使用。		
	Sterilizer for small milking parlors is changed into electric sterilizer, and use solar power to heat water, striving to achieve zero use of coal.		
	 根據氣溫對生活區域進行供暖,通過APP自動調節換熱機組回水溫度,將宿舍溫度控制在18℃-23℃,減少不必要的消耗。 Heat the living areas according to the air temperature, automatically adjust the reclaimed water temperature of the heating exchange unit through the APP and set temperature for the dormitory at 18℃-23℃, so as to reduce unnecessary consumption. 		
燃油 Fuel	 - 將生活區柴油鍋爐改造為太陽能取暖,節能環保,降低成本。 The diesel boilers in the living areas are transformed into solar heating, which saves energy and is environmental-friendly while reducing costs. 		
	- 撒料用車耗油量高,通過調整原料存放位置,調整上料順序,減少車輛在攪拌站的行駛圈數合併同種牛舍撒料次數,減少車輛撒料次數,有效節省油耗。 The fuel consumption of the spreading vehicle is high. By adjusting the storage location of raw materials and the order of feeding materials, the number of driving routes of the vehicle in the mixing station and the number of times for spreading feeding materials in the same kind of cowshed can be reduced, which can effectively save fuel consumption.		
	 對車輛噴油器以及油泵進行校驗,並調至標準噴油量。 Check the fuel injector and fuel pump of vehicles and adjust them to the standard fuel injection volume. 		

水資源管理

Water Management

現代牧業認識到缺水將給牧場生產運營帶來重大風險,重視水資源的高效利用。為提高水資源利用率,實現節水目標,我們在生產和運營中通過以下措施提高了水資源利用及管理水平,並在所有運營地實行節水優化措施:

Modern Dairy recognizes that water shortage will bring major risks to the production and operation of farms, and attaches great importance to the efficient use of water resources. In order to improve the utilization rate of water resources and achieve the goal of water saving, we have improved the level of water resources utilization and management through the following measures in production and operation, and have implemented water saving optimization measures in all operating locations:

- 公司制定《用水管理制度》,針對各牧場不同區域設定用水標準,將用水情況納入牧場考評範圍,從 責任角度加強水資源的管理:
 - The Company has formulated the Water Management System, which sets water standards for different areas of each farm, and incorporates water use into the assessment scope of the farm, so as to strengthen the management of water resources from the perspective of responsibility;
- 公司對各牧場奶廳、全場區用水量進行月度監測,並對用水數據進行對比分析,及時發現用水量增加或異常情況,從而有針對性地解決用水問題,減小用水壓力,降低因用水量增加而帶來的相關風險;
 - The Company monitors the water consumption of milk parlors of each dairy farm and the whole farming area on a monthly basis, and compares and analyzes the water consumption data to detect the increase or abnormal situation of water consumption in time, so as to solve the problem of water use in a targeted manner, reduce the pressure of water use and reduce the related risks caused by the increase of water consumption;
- 公司在各牧場逐步進行精準噴淋技改項目,該噴淋系統具備監測天氣溫度的功能,根據監測到的天氣溫度及奶牛採食情況自動開啟噴淋。該系統嚴格設定了噴淋開啟的溫度條件及間隔噴水時間,並 準確識別奶牛出現情況觸發啟動條件,從而達到節水的目的。
 - The Company has gradually carried out technical transformation projects of precise spraying in each farm. The spray system has the function of monitoring the weather temperature, and automatically starts the spray according to the monitored weather temperature and the feeding situation of the cows. The system strictly sets the temperature conditions for spraying on and the interval of water spraying, and accurately recognizes the occurrence of cows to trigger the starting conditions, so as to achieve the purpose of saving water.

包裝管理

Packaging Management

公司使用符合《中華人民共和國汽車行業標準 - 鮮奶運輸車輛(QC/T 23-2014)》及環保要求的奶罐車進行運送,因此在原奶運輸中不使用任何其他包裝材料或產生任何包裝廢棄物。在選用奶罐車時對原奶罐體設有嚴格的衛生安全標準,要求裝運原奶的罐體使用環保、可持續、循環使用的保溫材料,具有良好的化學穩定性,不吸潮,對罐體無腐蝕、無毒,並能滿足工作溫度的要求。

The Company uses milk tankers that comply with the Automobile Industry Standards of the People's Republic of China – Fresh Milk Transport Vehicles (QC/T 23–2014) and environmental protection requirements for transportation, so no other packaging materials are used and no packaging waste is generated in the transportation of raw milk. We have strict hygiene and safety standards for raw milk tanks. We require that the tanks for shipping raw milk use environmentally friendly, sustainable and recycled thermal insulation materials, which have good chemical stability, do not absorb moisture, are non-corrosive and non-toxic to the tank and can meet the requirements of working temperature.

表:2021年現代牧業資源使用表 Table: Resource Usage Table of Modern Dairy of 2021

指標 Indicators	單位 Unit	2021年 2021
外購用電總量	萬千瓦時	30,491.84
Total amount of outsourced electricity 燃煤	Ten thousand kWh 萬噸	0.15
Fuel coal 天然氣 ¹	Ten thousand tons 萬立方米	40.88
Natural gas¹ 柴油	Ten thousand cubic meters 萬升	613.78
Diesel 汽油	Ten thousand liters 萬升	17.01
Gasoline 沼氣消耗量	Ten thousand liters 萬立方米	12,867.13
Biogas consumption 綜合能源消費總量 ²	Ten thousand cubic meters 萬噸標煤	13.89
Total energy consumption ²	Ten thousand tons of standard coal	
百萬營收綜合能源消費總量	噸標煤/百萬元	21.08
Total energy consumption per million revenue 用水總量	Tons of standard coal/million 萬噸	977.43
Total water consumption 百萬營收用水量	Ten thousand tons 萬噸/百萬元	0.15
Water consumption per million revenue	Ten thousand tons/million	

- 註: 1. 由於2021年部分牧場停止使用天然氣鍋爐,優化能源使用結構,充分利用自有新能源系統,將自產沼氣等可再生能源轉 化為熱能,從而減少外購天然氣,因此天然氣消耗量下降較大。
- Notes: 1. Since some farms ceased to use natural gas boilers in 2021 and optimized the energy use structure to make full use of their new self-owned energy systems, convert renewable energy such as self-produced biogas into thermal energy, thereby reducing the purchase of natural gas, natural gas consumption dropped significantly.
 - 2. 能源折標煤數據參考《綜合能耗計算通則》(GB/T 2589-2020)。
 - 2. Please refer to the General Principles of Comprehensive Energy Consumption Calculation (GB/T 2589–2020) for the energy conversion data of standard coal.

1.4.2 減少排放低碳運營

Emission Reduction and Low-carbon Operation

現代牧業積極響應國家「碳達峰、碳中和」戰略目標,開展全面的碳盤查工作、設立減排目標,踐行有力的節能減排策略,加強溫室氣體、廢氣、廢棄物及廢水管理,逐步提高環境管理水平,全面落實《聯合國 2030年可持續發展議程》。

Modern Dairy actively responded to the national strategic goal of "carbon peaking and carbon neutrality" to carry out a comprehensive carbon inventory, set emission reduction targets, practice powerful energy conservation and emission reduction strategies and strengthen the management of greenhouse gases, waste gas, waste and wastewater to gradually improve the level of environmental management, and also fully implemented the United Nations 2030 Agenda for Sustainable Development.

制定減排目標

Setting Emission Reduction Targets

為了在向低碳經濟轉型的過程中提高企業的競爭優勢,現代牧業從溫室氣體、有害廢棄物和無害廢棄物出發,制定相對科學的減排目標,為我們的長期氣候變化策略奠定堅實的基礎,展現了現代牧業減排的堅定決心。

In order to enhance our competitive advantages in the process of transitioning to a low-carbon economy, Modern Dairy has formulated scientific emission reduction targets based on greenhouse gases, hazardous wastes and non-hazardous wastes, which laid a solid foundation for our long-term climate change strategy and demonstrated Modern Dairy's firm determination to reduce emissions.

溫室氣體排放目標 Greenhouse gas emissions target	- 以2020年為基準,未來10年,在保障沼氣鍋爐尾氣達標排放的基礎上,進一步增加尾氣處理裝置,達到優於國家標準,從而減少溫室氣體排放。 Taking 2020 as the benchmark, in the next 10 years, we will further increase the exhaust gas treatment device on the basis of ensuring that the exhaust gas of the biogas boiler meets the standards, so as to meet the national standards and reduce greenhouse gas emissions.
有害廢棄物目標 Hazardous waste target	- 以2020年為基準,到2025年,實現原料原奶品質控制檢測產生廢物總量降低10%;到2030年,實現原料原奶品質控制檢測產生廢物總量降低25%。 Taking 2020 as the benchmark, by 2025, reduce the total amount of waste generated by quality control and testing of raw materials and raw milk by 10%; and by 2030, reduce the total amount of waste generated by quality control and testing of raw materials and raw milk by 25%.
無害廢棄物目標 Non-hazardous waste target	- 到2022年財年截至,全面取消燃煤鍋爐使用,降低煤渣產生及廢氣排放。 By the end of FY 2022, the use of coal-fired boilers will be completely stopped to reduce the generation of coal slag and exhaust gas emissions.

溫室氣體管理

Greenhouse Gas Management

現代牧業關注國際及國內關於碳排放管理的最新動向,並將碳排放管理作為可持續發展的重點專項任務。2021年,現代牧業開啟「雙碳戰略項目」,成立碳盤查小組,並聘請專業團隊對集團下屬牧場及飼料加工廠開展了第一階段的碳盤查工作。盤查全面掌握了公司目前所涉及碳排放物質、排放形式等信息,確定溫室氣體排放主要來自於生產運營中的能源消耗以及奶牛腸道氣與反芻、奶牛糞便發酵、土地管理、滅火器空調制冷劑逸散排放、外購電力等方面。同時,對收集的基礎數據進行多維度驗證核實,參考最具權威性、時效性且適用於公司實際情況的主流標準和方法論,建立了現代牧業碳盤查計算模型,全面推進碳排放數據的公開、透明、可追溯性。此外,2021年溫室氣體排放數據取得ISO 14064認證,進一步提高碳排放數據的置信程度,強化碳排放管理能力。下一步,我們將在全面碳盤查的基礎上制定更為科學的減排目標。

Modern Dairy monitors the latest international and domestic trends in carbon emission management, and regards carbon emission management as a key special task for sustainable development. In 2021, Modern Dairy launched the "Double-carbon Strategic Project", established a carbon inventory team, and hired a professional team to carry out the first phase of carbon inventory work on the Group's farms and feed processing plants. Through the inventory work, we have fully grasped the Company's current carbon emission substances, emission forms and other information, and confirmed that the greenhouse gas emissions mainly came from energy consumption in production and operation, as well as dairy cow intestinal gas and rumination, dairy cow manure fermentation, land management, the refrigerant fugitive emissions from fire extinguishers and air conditioners, purchased electricity and other aspects. At the same time, we established the carbon inventory calculation model of Modern Dairy by conducting multidimensional validation and verification of the collected basic data and referring to the most authoritative, timely mainstream standards and methodologies applicable to the actual situation of the Company, so as to comprehensively promote the openness, transparency and traceability of carbon emission data. In addition, we had obtained ISO 14064 certification for our 2021 greenhouse gas emission data, which further enhanced the credibility of carbon emission data and strengthened carbon emission management capabilities. In the next step, we will formulate more scientific emission reduction targets based on the comprehensive carbon inventory.

報告期內,公司在全運營地範圍內持續開展以下溫室氣體減排舉措,從能源使用、節能技改、糞污處理、優化飼養配方及技術、牛群建設、綠化建設等方面着手,控制溫室氣體排放。

During the reporting period, the Company continued to carry out the following greenhouse gas emission reduction measures in the whole operating area, so as to control greenhouse gas emissions in terms of energy use, energy-saving technological transformation, manure treatment, optimizing feeding formulas and techniques, cattle herd construction, and greening construction.

- 積極優化能源使用結構,增加清潔能源的使用,推動能源結構轉型。將生物質能源替代熱值低、溫 室氣體排放高的舊能源,減少溫室氣體排放;
 - Actively optimize the structure of energy use, increase the use of clean energy, and promote the transformation of the energy structure. Substitute biomass energy for old energy with low calorific value and high greenhouse gas emissions to reduce greenhouse gas emissions;
- 加大節能減排管理力度,加強節能技術改造,通過升級牧場硬件設施降低能耗,包括感應式風機、 精準噴淋和節能照明等設施升級改造,進一步提升能效,從而降低溫室氣體排放。相關具體措施詳 見本報告[1.3.1 節約資源精細使用 - 能源管理];
 - Strengthen the management of energy conservation and emission reduction, intensify the transformation of energy conservation technology and reduce energy consumption by upgrading the hardware facilities in the farm, including the upgrading of induction fans, precision spraying and energy-saving lighting and other facilities, to further improve energy efficiency, thereby reducing greenhouse gas emissions. For specific measures, please refer to "1.3.1 Conservation and Careful Use of Resources Energy Management" in this report;
- 種養結合糞污高效利用,提高糞污資源化利用率,將糞污變廢為寶,種養一體化實現減碳:相關具體措施詳見本報告「1.2.2 循環再生 保護生物多樣性 生態循環」:
 Combine planting and breeding with efficient utilization of manure to improve the utilization rate
 - of manure resources, turn waste into treasure, and realize carbon reduction through the integration of planting and breeding. For specific measures, please refer to "1.2.2 Recycling and Conserving Biodiversity Ecological Circulation" in this report;
- 優化飼料結構及餵養技術,提升青貯飼料質量和用量,改善日糧配方,提高飼料消化率,從而減少 腸道發酵和糞便管理環節溫室氣體排放;
 - Optimize feed structure and feeding techniques, improve silage quality and dosage and improve diet formula to improve feed digestibility, thereby reducing greenhouse gas emissions from enteric fermentation and manure processing;

- 優化牛群結構,開展胚胎移植,替換低產牛群,構建核心牛群,打造低碳、高福利、高效能的牛群,從而減少溫室氣體排放;
 - Optimize the herd structure, conduct embryo transfer operations to replace low-yielding herds and build a core herd, so as to create a low-carbon, high-welfare and high-efficiency herd and reduce greenhouse gas emissions;
- 鼓勵員工使用新能源車型、拼車或公共交通通勤方式,並通過線上會議替代的方式減少因不必要的 遠涂線下會議造成的溫室氣體排放;
 - Encourage employees to use new energy vehicles, carpooling or public transportation for commuting, and reduce greenhouse gas emissions caused by unnecessary long-distance offline meetings by holding online meetings;
- 積極進行各運營地綠化建設,減緩運營過程中的溫室氣體排放。
 Actively carry out greening construction in each operation site to reduce greenhouse gas emissions during operation.

廢氣管理

Exhaust Gas Management

現代牧業廢氣排放主要來源包括煤炭、生物質及天然氣使用產生的氮氧化物、二氧化硫等氣體排放。公司對來自牛舍、沼氣站和供熱鍋爐等單元的廢氣經脱硫等處理後達標排放,從而減少廢氣排放;同時,對各牧場的供暖鍋爐進行升級改造,並逐漸關閉燃煤鍋爐,用更清潔高效的燃氣鍋爐或生物質鍋爐替代,逐步提高對沼氣的利用水平。

The main sources of exhaust gas emissions from Modern Dairy include nitrogen oxides, sulfur dioxide and other gas emissions from the use of coal, biomass and natural gas. The Company discharges the exhaust gas from cowsheds, biogas stations and heating boilers and other units after desulfurization and other treatment, so as to reduce exhaust gas emissions. At the same time, the Company has upgraded the heating boilers of farms, and gradually closed coal-fired boilers and replaced them with cleaner and more efficient gas-fired boilers or biomass boilers to gradually improve the utilization level of biogas.

廢棄物管理

Waste Management

現代牧業廢棄物主要包括牧場產生的煤渣和生活垃圾等無害廢棄物以及牧場病死牛、醫療垃圾、廢油等危險廢棄物。公司嚴格規範廢棄物處理處置方法,與具有專業資質的公司合作處理有害廢棄物,確保其不對環境造成負面影響,同時將無害廢棄物進行最大限度的回收利用。報告期內,公司無害廢棄物產生量共計954.9噸,百萬營收無害廢棄物產生量為0.14噸/百萬元。

The wastes of Modern Dairy mainly include non-hazardous wastes such as coal residues and household wastes produced in farms, as well as hazardous wastes such as dead cattle, medical wastes, and waste oil. The Company strictly regulates the waste treatment and disposal methods, and cooperates with companies with professional qualifications to deal with hazardous waste to ensure that it does not have a negative impact on the environment, and at the same time, maximize the recycling of non-hazardous waste. During the reporting period, the Company generated a total of 954.9 tons of non-hazardous waste, and the non-hazardous waste generated per million revenue was 0.14 tons/RMB million.

減少無害廢棄物排放 Reducing the discharge of non-hazardous waste

- 將煤渣全部回收利用,填平牧場道路或場地坑窪的部分;
 All the cinders are recycled and used to fill in the farm roads or potholes in the site;
- 對生活垃圾進行分類,加強對員工在垃圾分類、回收方面的宣傳,加強環保意識。
 Sort domestic waste, strengthen publicity for employees on waste classification and recycling, and increase environmental protection awareness.

減少有害廢棄物排放 Reducing the discharge of hazardous waste 優化化驗所用試劑瓶容量,最大限度減少試劑瓶的使用:同時規定醫療垃圾及化驗所用試劑瓶儲存標準,建立廢棄物台賬並向環保部門備案,並將有害廢棄物交予具有資質的處理單位進行集中處理;

Optimize the capacity of the reagent bottles used in the laboratories to minimize the use of reagent bottles; and prescribe the storage standards for medical waste and reagent bottles used in laboratories, establish a waste ledger and file it with the environmental protection department, and hand over hazardous waste to qualified treatment units for centralized treatment;

- 制定並實施《廢油回收管理制度》,將廢油料交由具有回收資質的 公司妥善處理:

Formulate and implement the Waste Oil Recycling Management System, and hand over the waste oil to the company with recycling qualifications for proper disposal;

- 對於病死及病害牛,我們嚴格遵照《中華人民共和國病死及死因 不明動物處置辦法》及農業部《病死及病害動物無害化技術規範》 等,按照處理流程標準,進行相應方法的處置,防止對環境造成 危害以及被惡意利用。

For dead and diseased cattle, we strictly abide by the Measures of the People's Republic of China on the Disposal of Dead Animals and Unknown Cause of Death and the Technical Specifications for the Harmless Treatment of Dead and Diseased Animals issued by the Ministry of Agriculture, and carry out corresponding disposal methods in accordance with the treatment process and standards to prevent harm to the environment and malicious use.

廢水管理

Wastewater Management

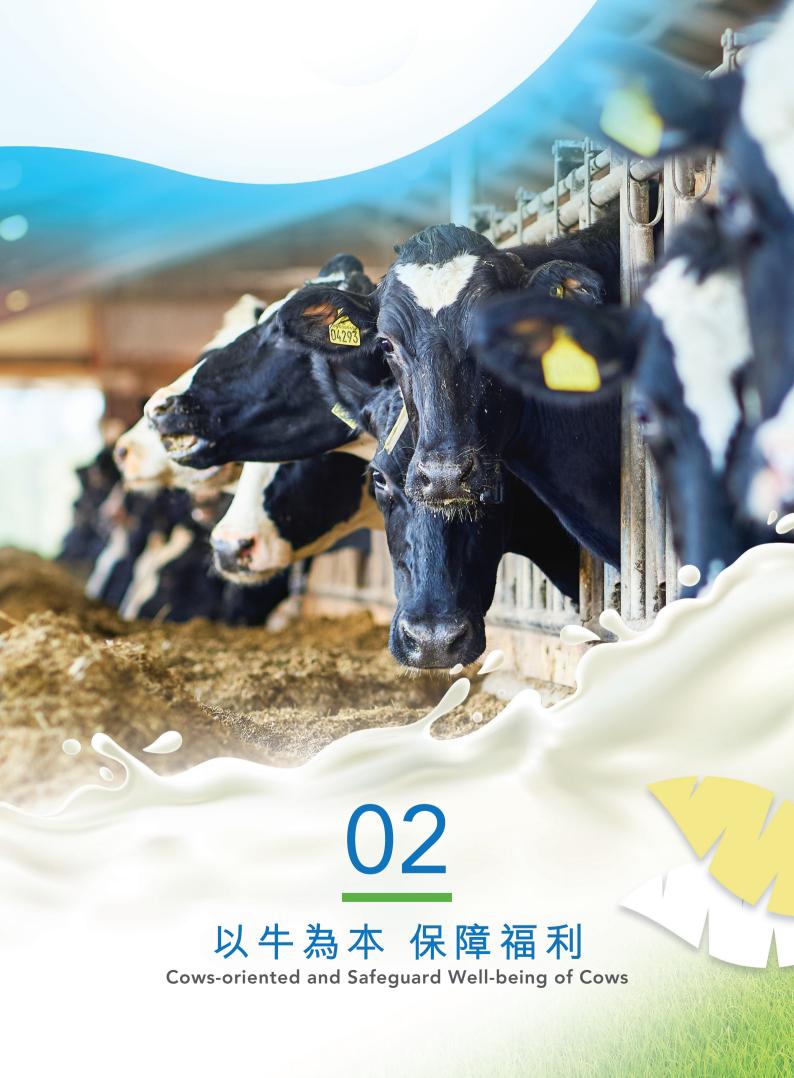
現代牧業對廢水進行全部內部循環使用,未產生廢水外部排放。對於生活污水,我們經過中水站處理後用於牛舍清洗、灌溉、降溫等;對於牛舍用水,我們將其併入糞道,稀釋沼液,與沼液一同發酵,在減少廢水排放的同時節約使用水資源。報告期內,公司廢水產生量137.5萬噸,廢水回收量137.5萬噸,廢水回收率達100%。

Modern Dairy recycles all the wastewater internally and does not discharge wastewater. For domestic sewage, we use it for cowshed cleaning, irrigation, cooling, etc. after being treated by the reclaimed water station; and for cowshed water, we incorporate it into the manure channel to dilute the biogas slurry and ferment it together with the biogas slurry, thus saving water resources while reducing wastewater discharge. During the reporting period, the Company produced 1.375 million tons of wastewater, recycled 1.375 million tons of wastewater, and the wastewater recycling rate reached 100%.

表:2021年現代牧業排放物指標 Table: Emission indicators of Modern Dairy of 2021

指標 Indicator	單位 Unit	2021年 2021
主要危險廢棄物產生量	噸	136.10
Production of major hazardous waste	tons	
百萬營收主要危險廢棄物產生量	千克/百萬元	20.66
Production of major hazardous waste per million revenue	kg/million	
病死牛無害化處理牛	頭	11,591
Harmless disposal of cows died due to diseases	heads	
廢氣中NO _x 排放量	噸	151.53
NO _x emissions in exhaust gas	tons	
廢氣中SO₂排放量	噸	68.69
SO ₂ emissions in exhaust gas	tons	
廢氣中煙塵排放量	噸	0.21
Soot emissions in exhaust gas	tons	
溫室氣體排放總量1,2	tCO ₂ e	1,325,668.02
Total emissions of greenhouse gas ^{1, 2}	2	
溫室氣體範圍一排放量1,2	tCO ₂ e	1,116,991.70
Emissions of greenhouse gas (scope I) ^{1, 2}		
溫室氣體範圍二排放量1,2	tCO ₂ e	208,676.32
Emissions of greenhouse gas (scope II) ^{1, 2}		
百萬營收溫室氣體排放量3	tCO ₂ e/百萬元	201.24
Emissions of greenhouse gas per million revenue ³	tCO ₂ e/million	

- 註: 1. 2021年公司溫室氣體排放量較2020年增長較多,一方面由於公司擴大了生產規模,牛隻數量有所增加;另一方面,2021年公司開展專業碳盤查工作,進一步優化了溫室氣體統計口徑及範圍,細化溫室氣體排放清單,將因奶牛糞便發酵、土地管理以及滅火器空調製冷劑逸散排放造成的溫室氣體排放納入統計範圍。
- Notes: 1. The Company's greenhouse gas emissions in 2021 increased significantly compared to 2020, mainly due to: (1) the Company expanded its production scale, resulting in an increase in the number of cattle; and (ii) the Company conducted carbon inventory in 2021, and further optimized the statistical calibre and scope of greenhouse gas and refined the greenhouse gas emissions inventory to include greenhouse gas emissions caused by dairy cow manure fermentation, land management and the refrigerant fugitive emissions from fire extinguishers and air conditioners into the statistical scope.
 - 2. 2021年溫室氣體排放計算方法論參考世界資源研究所(WRI)和世界可持續發展工商理事會(WBCSD)發佈的《溫室氣體核算體系企業核算與報告標準2012(修訂版)》、政府間氣候變化專門委員會(IPCC)發佈的《第六次評估報告》方法二,全球增溫潛勢值(GWP)取IPCC第六次評估報告(2021)中的GWP(100)值、ISO 14064-1:2018核算標準。
 - 2. The methodology for calculating greenhouse gas emissions in 2021 refers to the Greenhouse Gas Accounting System Corporate Accounting and Reporting Standards 2012 (Revised Edition) issued by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) and Mode 2 of the Sixth Assessment Report issued by the Intergovernmental Panel on Climate Change (IPCC), and the Global Warming Potential (GWP) takes the GWP (100) value in the IPCC Sixth Assessment Report (2021) and ISO 14064–1:2018 Accounting Standard.
 - 3. 每百萬元營收排放及能耗計算均基於:排放、能耗總量/收益(百萬元)。
 - 3. Calculations of emissions and energy consumption per million revenue are based on total emissions or energy consumption/revenue (RMB million).



2. 以牛為本 保障福利

Cows-oriented and Safeguard Well-being of Cows

現代牧業將動物福利作為企業社會責任體系的重要環節,積極普惠動物福利,並持續推進福利養殖理念與技術,從源頭提高企業競爭力。我們嚴格遵守《中華人民共和國動物防疫法》及《中華人民共和國建議管理辦法》等相關規定,內部建立相關管理體系並制定《奶牛舒適度管理制度》、《飼槽管理制度》、《原料物料質量標準制度》、《生物資產管理制度》等,不斷優化養殖環境、不斷提升生產條件、不斷強化防疫安全,科學設計養殖技術,我們始終遵循一系列動物福利原則,持續提升牧場奶牛福利水平。

Modern Dairy regards the well-being of animals as an important part of the corporate social responsibility system, actively promotes animals' welfare, and continues to propagate the concept and technology of welfare breeding, so as to improve its competitiveness from the source. We strictly abide by the relevant requirements of the Animal Epidemic Prevention Law of the People's Republic of China and the Proposed Management Measures of the People's Republic of China, and have established internal management systems and formulated the Cow Comfort Management System, the Management System on Feeding Trough, the System on Raw Material Quality Standard and the Management System on Biological Assets, so as to continuously optimize the breeding environment, continuously improve production conditions, continuously strengthen epidemic prevention and safety and scientifically design breeding technology. We always follow a set of animal welfare principles, and continue to improve the well-being of dairy cows in the farms.

使牛隻免於飢餓乾渴,隨時獲取水與飲食來保持牛隻健康與活力。

2

Keep cows healthy and active by freeing cows from hunger and thirst and allowing cows to have ready access to water and food.

避免牛隻嚴密禁閉,提供安全、舒適的環境,保證牛隻活動場所地面防滑,提供足夠的空間,適當的設施以及同類陪伴, 給予牛隻表達正常行為的自由,避免牛隻不適,保證牛隻生理及心理的健康狀態。

Avoid strict confinement of cattle, provide a safe and comfortable environment and ensure that the ground of cattle activities is non-slip. Provide enough space, appropriate facilities and companionship to give cattle the freedom to express normal behaviours, avoid cattle discomfort, and ensure the physical and psychological health of cattle.

禁止妊娠和分娩的板條箱、籠子、拴繫物,保證牛隻活動自如。

Pregnancy and birthing crates, cages and tethers are prohibited and cattle are allowed to move freely.

為牛隻提供豐富的活動場所及環境,保持卧床乾燥,設置合理的白天光照及夜間黑暗程度,提供豐富多樣的休憩環境。

Provide a variety of activity places and environments for cattle, keep their beds dry, set the appropriate daytime light and nighttime darkness, and provide diverse rest environments.

避免長途運輸,減少牛隻運輸時間,避免運輸途中強烈顛簸、空間狹窄、空氣不暢等情況的發生。

Avoid long-distance transportation, reduce the transportation time of cattle, and avoid the occurrence of strong bumps, narrow spaces and poor air during transportation.

通過預防或快速診斷與治療,使牛隻免於疼痛、傷害和疾病。

Keep cattle free from pain, injury and disease through prevention or rapid diagnosis and treatment.

通過確保避免精神痛苦的條件和治療,使牛隻免於恐惧和痛苦。

Free cattle from fear and pain by ensuring conditions and treatments without mental distress.

保障牛隻自由生長,不向動物使用激素等促生長物質。

Ensure the free growth of cattle and do not use growth-promoting substances such as hormones on animals.

定期對動物生產業務進行內部審查,保證牛隻精心繁育照看。

Regular internal reviews of animal production operations are carried out to ensure that cattle are carefully bred and cared for.

2.1 環境及行為福利

Environmental and Behavioural Welfare

2.1.1 打造舒適牛舍

Creating Comfortable Cowsheds

現代牧業依據牧場資源,結合環保要求,從臥床墊料選取、恒溫設計到通風管理,充分提升牛舍舒適度,避免奶牛嚴密禁閉及長途運輸,保持臥床乾燥適度,確保牛舍無毒空氣以及合適的白日光照度、夜間黑暗度,降低牛隻因睡眠環境不舒適造成的能量損失。

Based on its farm resources and environmental protection requirements, Modern Dairy fully improves the comfort of the cowsheds, from the selection of bedding materials, constant temperature design to ventilation management. We avoid strict confinement and long-distance transportation of dairy cows, and keep the beds dry to ensure that the cowshed has non-toxic air and appropriate daytime illumination and night-time darkness, so as to reduce the energy loss of cows caused by uncomfortable sleeping conditions.

臥床升級 Upgrading the bedding

- 墊料製作:選擇環保、無害、鬆軟的材料用於製作臥床,如乾沼渣(經發酵殺菌、乾濕分離後的產物)沙子、鋸末、稻殼等;
 Beddings: Choose environmentally friendly, harmless and soft materials for making the bed, such as dry biogas residues (the product of dry and wet separation after fermentation and sterilization), sand, sawdust, rice husks, etc.;
- 清潔管理:保證墊料清潔,定期更換及時補充。泌乳牛舍每天至 少清理臥床2次,非泌乳牛舍每天至少1次;
 Cleaning management: Clean, replace regularly and replenish the beddings in time. Beds for lactating cows should be cleaned at least twice a day, while at least once a day for non-lactating cows;
- 鋪墊感官:牛舍統一標準墊料厚度不小於15cm,內外鋪墊高度方便奶牛躺臥,翻耕鬆軟深度達到10cm以上; Standards of beddings: The uniform standard for bedding thickness of the cowshed shall not be less than 15cm, the height of the inner and outer bedding shall be convenient for cows to lie down, and the depth of ploughing shall be more than 10cm;
- 臥床多樣:提供鋸末臥床、稻殼粉臥床、乾草臥床、墊沙臥床等豐富多樣的臥床環境。

A variety of beddings: Provide a variety of bed environments such as sawdust beddings, rice husk powder beddings, straw beddings, and sand beddings.

舒適空間 Comfort	 減少對牛隻活動空間的限制,以保證牛隻能夠舒適地站立、伸展、轉身、坐臥等; Reduce restrictions on the cattle' movement space to ensure that the cattle can stand, stretch, turn and sit comfortably; 避免牛隻嚴密禁閉及長途運輸,盡可能減少運輸時間;
	Avoid strict confinement and long-distance transportation of cattle, and minimize the transportation time; - 定期監測牛舍空氣質量,確保牛舍無毒空氣; Regularly monitor the air quality of the cowshed to ensure no toxic air in the cowshed;
	- 根據牛隻需求嚴格規定牛舍亮度與暗度,配備照度計對牛隻活動場所進行測定,確保牛舍白日光照度及夜晚黑暗度。 Strictly stipulate the brightness and darkness of the cowshed according to the needs of cattle, and equip with the illuminance meter to measure the cattle's venue to ensure the lightness of the cowshed during the day and the darkness at night.
通風保障 Ventilation	- 保證恒溫:夏季,恒溫牛舍風速>3.0米/秒,其餘季節,恒溫牛舍風速>2.5米/秒; Maintaining a constant temperature: In summer, the wind speed of the cowshed with constant temperature should be greater than 3.0 m/s, while greater than 2.5 m/s for other seasons;
	- 控制氨氣濃度:牛舍內設置多個檢測點,全面檢測氨氣濃度、氣溫、濕度、風速等指標,氨氣濃度超標後立即採取通風措施,並持續跟蹤1周直至氨氣濃度在標準範圍內。牛舍氨氣濃度保持在:開放式<3ppm;恒溫<5ppm。 Control ammonia concentration: Multiple detection points are set up in the cowshed to comprehensively detect indicators such as ammonia concentration, temperature, humidity, and wind speed. Immediately take ventilation measures after the ammonia concentration exceeds certain standards, and continue to track for one week until the ammonia concentration is within the standard

range. The ammonia concentration in the barn is kept at less than 3ppm (for open barns) or less than 5ppm (for thermostatic barns).



鋸末臥床 Sawdust beddings



稻殼粉臥床 Rice husk powder beddings



墊草臥床 Straw beddings



墊沙臥床 Sand beddings

2.1.2 優化行動場所

Optimizing Venues for Dairy Cows

現代牧業高度關注所有奶牛活動範圍內區域的設備齊全、設計科學合理及衛生安全。我們盡可能順應動物自然習性,實施符合奶牛習性的管理方式。

Modern Dairy pays great attention to whether the venues for dairy cows are well-equipped, scientifically and rationally designed, hygienic and safe. We try our best to follow the natural habits of animals and implement management methods that conform to the habits of dairy cows.

運動場管理 Playground management

- 冬季開放保證墊草數量,以採食兩小時後85%以上的躺臥率作為標準提高運動場舒適度;
 - In winter, a sufficient number of beddings will be guaranteed, and the comfort of the playground is improved by taking the lying rate of more than 85% after two hours of feeding as the standard;
- 異物糞污處理及時到位,每周機械耙鬆運動場1次,春冬季每周 清理糞污1次,清理和疏鬆臥床,於此同時,及時將石塊、鐵 絲、木刺等堅硬、尖鋭的危險異物清理乾淨,避免對奶牛造成傷 害;

Dispose of garbage and manure in time, mechanically rake the playground once a week, clean the faeces once a week in spring and winter, and clean and loosen the beddings. Clean up hard and sharp dangerous garbage such as stones, iron wires and wood thorns in time to avoid harm to cows;

- 雨後及時做好排水工作,泥濘積水情況下避免奶牛入場。
Drainage should be done in time after the rain, and keep cows from entering the field in case of muddy water.

生活設施管理 Living facility management

- 飲水保障:持續供水,保證24小時水量充足;明確水槽清洗頻次,定期評估水質,保證飲水乾淨無異味;
 - Drinking water: Continuous water supply to ensure sufficient water for 24 hours, clarify the cleaning frequency of the sink and regularly assess the water quality to ensure that the drinking water is clean and odour-free;
- 飼養密度:保障牛隻最佳舒適的飼養密度,以防止牛隻間的溫度及濕度過高,同時對牛隻進行實時監控,以防止牛隻出現因競爭、壓力、攻擊性及異常行為;
 - Stocking density: Ensure that the stocking density is optimum and comfort for the cattle, to prevent the temperature and humidity between the cattle from being too high, and conduct real-time monitoring of cattle to prevent competition, stress, aggression and abnormal behaviours of cattle;
- 一 科學噴淋:控制水量,反覆交替噴濕和吹乾程序,有效持續降低 牛體體溫,控制濕度;
 - Scientific spray: Control the amount of water and repeat alternately spraying and drying procedures to effectively and continuously reduce the body temperature of the cattle and control the humidity;
- 光照管理:在飼槽、奶牛行走通道和臥床上方提供照明裝置,規 定光照強度標準,泌乳牛:180Lux以上,16小時;非泌乳牛: 30Lux,8小時。
 - Lighting management: Provide lighting installations above feeding troughs, cow walking passages and lying beds, and specify light intensity standards: above 180Lux for 16 hours for lactating cows and 30Lux for 8 hours for non-lactating cows.

2.1.3 關注犢牛福利 Calves' Welfare

現代牧業重視犢牛生長環境,建立獨立犢牛島,專業呵護奶牛待產到犢牛斷奶後全程和全方位保障。 Modern Dairy attaches great importance to the growth environment of calves, and establishes an independent calf island to provide professional and comprehensive care for dairy cows until they are weaned.

消毒管控 Disinfection control

- 新生犢牛暫存欄及存放區域鋪灑生石灰等乾粉消毒劑保持臥床地 面乾燥,避免細菌滋生;
 - Dry powder disinfectants such as quicklime are applied in the temporary storage pen and storage area of newborn calves to keep the floor of the bedding dry and avoid the growth of bacteria:
- 室內犢牛舍對循環使用中的關鍵結點進行消殺和清理,重新放置 新鮮墊料後方可放置新生犢牛;
 - In the indoor calf house, the key nodes in the cycle are sanitized and cleaned, and the new calves can be placed only after the fresh bedding is placed;
- 糞道用水沖洗後再用消毒劑消毒,繼續投入使用;
 The faecal tract is rinsed with water and then disinfected with disinfectants;
- 小擠奶廳、產房、圍產牛舍、初產牛舍等處安置胎衣、死胎收集桶,用特定濃度的消毒藥品對收集桶進行消毒;使用石灰粉對收集的胎衣或死胎進行消毒並做無害化處理,同時對拾取位置進行消毒。

Place afterbirth and stillbirth collection buckets in small milking parlors, delivery rooms, perinatal cowsheds and primiparous cowsheds, and sterilize the collection buckets with disinfectants of specific concentration; and the collected afterbirth or stillbirth is sterilized and harmless treated with lime powder, and the pick-up location is sterilized.

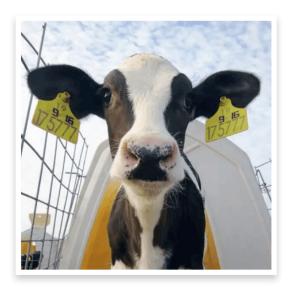
舒適環境 Comfortable environment

- 保暖:使用保溫燈或暖風機,提高暫存欄溫度;室外飼養情況,轉運車加築頂棚或者轉運時覆蓋毛巾;為犢牛提供禦寒馬甲; Keeping warm: Use a heat preservation lamp or a heater to increase the temperature of the temporary storage column; for outdoor rearing, the transfer vehicle is covered with a roof or a towel is covered during transfer; and provide calves with a vest against the cold;
- 防風:室外犢牛島調整擺放朝向,北方牧場以3-5個犢牛島為一個單位,在每個單位的左側、右側及背後堆放草垛以阻擋寒風進入犢牛島或使用保溫塑料薄膜包圍犢牛欄左側、右側、背後及頂部,幫助犢牛躲避寒風及雨雪;

Windbreak: Adjust the orientation of the outdoor calf islands. For northern farms, taking 3–5 calf islands as a unit, stack haystacks on the left, right and back of each unit to block cold winds from entering calf islands or cover the left, right, back and top of the calf pen with insulating plastic film to help the calf shelter from the cold wind, rain and snow;

分群管理:各牧場在頸夾上做好斷奶後犢牛體高標識(110厘米),每月在測完生長指標後按照體格大小調群,提供每頭奶牛寬闊舒適的生活空間,有效控制飼養密度。

Cluster management: Mark the body height after weaning (110 cm) on the neck clip of the calves, adjust the group according to the body size after measuring the growth index every month, and provide each cow with a spacious and comfortable living space to effectively control the stocking density.





2.2 生理及心理福利

Physiological and Psychological Welfare

2.2.1 科學飼育方法

Scientific Breeding Methods

現代牧業積極探索先進的飼育方法,本着「牛翻番,奶翻倍」的戰略理念,通過改良育種技術、精細犢牛 餵養、加強規範培訓,提高犢牛存活率,充分發揮生產性能的遺傳潛質,有效規避健康問題,為成年階 段打好基礎,呵護奶牛生理及心理健康發展。

Modern Dairy actively explores advanced breeding methods. In line with the strategic concept of "doubling herd size and milk production", we have improved the survival rate of calves by improving breeding technology, finely feeding calves and strengthening standardized training. We give full play to the genetic potential of production performance, effectively avoiding health problems, laying a solid foundation for the adult stage of dairy cows and taking care of the physical and psychological development of dairy cows.

精心繁育。我們與國際先進企業開展戰略合作,全球優選多品種優質奶牛,針對未來乳業需求方向,明確重點改良方向,制定個體選配方案,通過基因檢測選擇綜合指數高、健康長壽,奶量提升、乳汁品質良好的優質凍精和胚胎開展自產胚胎移植項目,培育「健康、高產、高效、高質量」的核心奶牛群,最大限度發揮奶牛的遺傳潛力。

Careful breeding. We carry out strategic cooperation with international advanced enterprises, and select multiple varieties of high-quality dairy cows around the world. Based on the future direction of dairy industry demand, we clarify the key improvement direction and formulate individual matching plans. Through genetic testing, we select high-quality frozen semen and embryos with a high comprehensive index, health and longevity, improved milk volume and good milk quality to carry out self-produced embryo transfer projects, so as to cultivate a "healthy, high-yield, high-efficiency, high-quality" core dairy herd and maximize the genetic potential of dairy cows.

• **用心呵護**。我們規範斷奶前犢牛飼餵操作,嚴格巴氏滅菌乳的採樣存放要求,由專門部門負責協助檢驗細菌菌落指標,明確代乳粉的調配使用,同時建立更換代乳粉的過渡方案,全面規範從餵奶桶選擇到常乳巴殺機的清洗程序,我們關注飼餵過程的每一個環節,避免因飼餵操作不規範影響犢牛的正常發育和建康成長。

Meticulous care. We standardize the feeding operation of calves before weaning, strictly stipulate the sampling and storage of pasteurized milk, and assign special departments to assist in the inspection of bacterial colony indicators, and clarify the preparation and use of milk replacer powder. We also establish transition plans for replacing milk replacers, and comprehensively standardize the cleaning procedures from the selection of milking buckets to the cleaning of milk powder. We pay attention to every link of the feeding process to avoid affecting the normal development and healthy growth of calves due to irregular feeding operations.

• 意識培養。牧場管理過程遵從奶牛的生理習性,為奶牛提供自然放鬆的生活環境。在與奶牛接觸環節,員工嚴格遵循標準操作並接受專業培訓,如針對奶廳人員開展擠奶操作流程、乳房炎的揭發、其它異常乳的揭發等培訓課程。我們嚴格執行《獸醫部門生產操作管理制度》的相關要求,禁止生產過程中對奶牛有任何踢打行為或者惡意傷害牛隻行為,通過奶牛福利相關培訓實現最小化應激飼養。此外,我們提升員工對動物福利的認識,針對動物福利進行培訓宣貫,使員工關注奶牛生理及心理健康,強化員工以人道主義方式對待奶牛的意識,並逐步開展動物互動計劃,提升動物福利水平。我們堅決禁止員工出現任何違反動物福利政策的情況,當出現該情況時,我們將根據《員工獎懲制度》進行一級警告,若連續3個月內出現兩次一級警告行為,將給予二級警告,全面保證動物福利政策的執行。

Awareness development. The management process of the farm should follow the physiological habits of dairy cows and provide a natural and relaxing living environment for dairy cows. Regarding the contact with dairy cows, employees strictly follow standard operations and receive professional training, such as training courses about milking operation procedures, detection of mastitis and detection of other abnormal nipples for milking parlor personnel. We strictly implement the relevant requirements of the Production and Operation Management System of Veterinary Department, and prohibit any behaviour of kicking or maliciously hurting cows during the production process, and minimize stress breeding through cow welfare-related training. In addition, we enhance employees' awareness of animal welfare and carry out training on animal welfare to make our employees pay attention to the physical and mental health of dairy cows. We also strengthen employees' awareness of treating dairy cows in a humanitarian manner, and gradually carry out animal interaction programs to improve animal welfare. We firmly prohibit any violation of our animal welfare policies by our employees. When any violation is found, we will give a first-level warning to the relevant employee according to the Employee Reward and Punishment System. If an employee is given two firstlevel warnings within 3 consecutive months, a second-level warning will be given to fully ensure the implementation of animal welfare policies.

2.2.2 飼料營養配方

Nutritional Formulations of Feeds

現代牧業制定奶牛的營養目標,通過先進的技術設計管理飼料營養結構,滿足營養全面、均衡、滿足相應牛隻的營養需求,促進奶牛健康、快速地成長發育。

Modern Dairy formulates the nutritional goals of dairy cows, and designs and manages the nutritional structure of feeds through advanced technology, aiming to satisfy comprehensive and balanced nutrition, meet the nutritional needs of corresponding cows, and promote healthy and rapid growth and development of dairy cows.

• 設計工具:我們使用最新並基於CNCPS6.1營養體系研究開發的AMTS奶牛配方管理軟件,以達到更全面的設計、估計配方;

Design tools: We use the latest AMTS cow formula management software which is based on CNCPS6.1 nutrition system research and development to design more comprehensive design and estimate formula;

- 配比均衡:配備智能飼料系統,根據不同階段奶牛的生理特性及乾物質採食量,參照NRC2001標準,通過不同原料之前間的營養物質組合效應,分配各種原料的使用量,精粗飼料搭配依據地區、品種、季節、飼養條件和原料供應等因素調整;
 - Balanced ratio: Applying intelligent feeding systems, according to the physiological characteristics and dry matter intake of dairy cows at different stages, referring to the NRC2001 standard and through the combination effect of nutrients between different raw materials, we allocate the usage amount of various raw materials. The combination of concentrate and roughage will be adjusted according to factors such as region, variety, season, feeding conditions and raw material supply;
- 質量把控:飼料原料通過牧場實驗室、第三方外檢(CAVS和美國實驗室檢測)以及現場感官判定, 準確把握飼料原料的質量(感官質量和營養指標),並通過近紅外光譜傳遞。與國內或者國際專家合作,分析目前的原料情況和配方效果,對更近一步的配方優化提供技術支持。
 - Quality control: Feed raw materials will be judged by farm laboratories, third-party external inspections (CAVS and US laboratory testing) and on-site personal judgments to accurately grasp the quality of feed raw materials (sensory quality and nutritional indicators), and transmit them through near-infrared spectroscopy. We cooperate with domestic or international experts to analyze the current raw material situation and formula effect, so as to provide technical support for further formula optimization.

2.2.3 精準飼料投放

Precise Feed Delivery

現代牧業各牧場要求投放飼料工作滿足準確性和及時性,保證各類牛群按照飼養處下發的送料時間,準時送料,明確規定泌乳牛和非泌乳牛的送料時間範圍波動分別在20分鐘和30分鐘之內,同時規範撒料均匀度和長度,合理設計採食道和撒料車輛,整合資源,提高飼餵效率,保留飼料營養,提升奶牛採食體驗。

The farms of Modern Dairy require the accuracy and timeliness of feeding work to ensure that all kinds of cattle are fed on time according to the feeding time issued by the feeding department, and stipulate that the feeding time range of lactating cows and non-lactating cows fluctuates within 20 minutes and 30 minutes respectively. We also standardize the uniformity and length of the feeding, and rationally design the feeding ducts and feeding vehicles to integrate resources, improve feeding efficiency, preserve feed nutrition and improve the feeding experience of dairy cows.

2.3 健康及安全福利

Health and Safety Welfare

本公司嚴格遵循《中華人民共和國動物防疫法》及《中華人民共和國動物檢疫管理辦法》相關規定,不斷完善內部《防疫管理制度》等相關制度,在實現奶牛養殖集約化、規模化的同時,秉承對行業負責「以防為主,防重於治」的防疫理念,促使奶牛防疫工作日趨標準化、體系化。

The Company strictly abides by the relevant regulations of the Animal Epidemic Prevention Law of the People's Republic of China and the Measures for the Administration of Animal Quarantine of the People's Republic of China, and continuously improves the Management System on Epidemic Prevention and other related internal systems. While realizing the intensive and large-scale development of the dairy farming industry, we adhere to the epidemic prevention concept that is responsible to the industry (i.e., "prevention first, prevention is more important than cure"), so as to promote the standardization and systematization of dairy cattle epidemic prevention.

2.3.1 奶牛安全防疫

Dairy Cow Safety and Epidemic Prevention

現代牧業完善防疫管控體系,加強防疫力量,升級技術水平,避免奶牛疫情風險。我們秉承「以防為主,防重於治」的防疫理念,將奶牛的防疫工作標準化、體系化,有效降低疫病風險,提高奶牛健康水平。報告期內,本公司淘汰牛檢疫率達到100%,奶牛口蹄疫接種覆蓋率達到100%,牛隻蹄病發病率0.96%,乳房炎發病率1.69%。公司將繼續保持奶牛檢疫率100%,健全進一步減少牛隻疫病發病率的目標,做好奶牛安全防疫工作。

Modern Dairy has perfected the epidemic prevention and control system, strengthened the epidemic prevention force and upgraded the technical level to avoid the risk of the dairy cow epidemic. Adhering to the epidemic prevention concept of "prevention first, prevention is more important than cure", we standardize and systematize the epidemic prevention work of dairy cows to effectively reduce the risk of diseases and improve the health of dairy cows. During the reporting period, the quarantine rate of culled cattle reached 100%, the coverage rate of foot-and-mouth disease vaccination of dairy cows was 100%, the incidence of hoof disease of cattle amounted to 0.96%, and the incidence of mastitis was 1.69%. The Company will continue to maintain a 100% quarantine rate for dairy cows and achieve the goal of further reducing the incidence of cattle blight in order to carry out safety and epidemic prevention work for dairy cows.

 日常健康檢查:配置獸醫對各牧場奶牛進行日常檢查看護,通過巡欄、新產牛護理、乳房炎治療、 疾病治療等多項常規檢查。同時,禁止奶牛產後繫繩,嚴格監控跛行率、乳腺炎發病率,將其控制 在10%以下,保證奶牛健康;

Daily health check: Assign veterinarians to conduct daily inspection and care of dairy cows in each farm, and conduct routine inspections such as patrolling, care for newly born cows, mastitis treatment and disease treatment. At the same time, the postpartum tethering of dairy cows is prohibited, and the lameness rate and the incidence of mastitis are strictly monitored to be below 10%, so as to ensure the health of dairy cows;

• **制定防疫計劃**:要求所有牧場結合所在地區情況,每年定期針對國家規定的人畜共患病、口蹄疫、 牛流行熱等其他流行性疾病制定免疫計劃;

Developing epidemic prevention plans: All farms are required to formulate immunization plans for zoonotic diseases, foot-and-mouth disease, bovine epidemic diseases and other epidemic diseases prescribed by the government on a regular basis every year according to the conditions of their regions;

• **全面疫苗接種**:每月對滿4月齡初免、滿5齡加強免疫,每年3次對6月齡以上牛群全群免疫(免疫時間應避開6/7/8月份熱應激);

Full vaccination: Monthly booster immunization for 4-month-old cows and 5-year-old cattle, and 3 times a year for whole herds of over 6 months of age (avoid immunizations in June, July and August when heat stress occurs);

病害動物處理:合規合法處理無飼養價值奶牛和病死牛,嚴格防控疫病傳播。內部制定《病害動物和病害動物產品生物安全處理規程》,明確要求掩埋管理、焚毀管理、消毒方法;

Diseased animals treatment: Dairy cows with no breeding value and dead cows should be handled in compliance with laws and regulations, and the spread of epidemic diseases should be strictly prevented. We have internally formulated the Regulations for the Biosafety Handling of Diseased Animals and Diseased Animal Products, which requires landfill management, incineration management, and disinfection methods;

• **突發應急管理**:制定公司內部奶牛重大疫情應急預案制度,應對突發疫情建立健全管理機制,明確 責任和處置流程,有效控制風險擴大範圍,減少經濟損失,維護公共衛生安全;

Emergency management: We have formulated the internal emergency plans and systems for major dairy cow epidemics to establish a sound management mechanism in response to sudden epidemics, clarify responsibilities and disposal procedures, effectively control the expansion of risks, reduce economic losses and maintain public health and safety;

• 抗生素使用政策:抗菌素的使用可能會增加牛隻耐藥性風險,因此本公司嚴格規範抗生素的使用用途,建立《疾病診療管理制度》,明確抗生素使用條件,嚴格監督獸醫用藥情況,並對抗生素使用數據進行記錄與跟蹤。報告期內,各牧場針對患有疾病牛隻進行抗生素治療的百分比為5%。在發生使用抗生素情況後,對牛隻進行單獨管理,嚴格進行過抗採樣檢測,確保牛隻痊愈且體內無抗生素含量。公司持續開展無抗藥品的研究與測試,致力於進一步減少抗生素藥物使用。同時,我們積極採取各項防疫措施,加強疫苗接種、健康監測,按照檢測要求嚴格進行無抗檢測及牛隻管理,並進一步提升飼育技術,通過改善飲食、增加益生菌含量、降低飼養密度等方式全面提升牛隻免疫力,有效降低牛隻疾病發病率,從而減少對抗生素的潛在需求。

Policy on antibiotics uses: Antibiotic use may increase the risk of drug resistance in cattle. Therefore, the Company strictly regulates the use of antibiotics, establishes the Management System on Disease Diagnosis and Treatment, defines the conditions for the use of antibiotics, strictly supervises the veterinarian's medication and records and tracks data on antibiotic use. During the reporting period, the farms under the Group treated 5% of sick cows with antibiotics. After the use of antibiotics, we manage the relevant cattle individually and strict anti-sampling tests are carried out to ensure that the cattle are cured and have no antibiotic content in the body. The Company keeps carrying out research and testing of antibiotic-free drugs, striving to further reduce the use of antibiotics. At the same time, we actively take various anti-epidemic measures such as strengthening vaccination, health monitoring, and strictly carry out antibiotic-free testing and cattle management in accordance with testing requirements. We have also further improved the breeding technology and comprehensively improved the immunity of cattle by improving diet, increasing the content of probiotics and reducing stocking density to effectively reduce the incidence of cattle diseases, thereby reducing the potential demand for antibiotics.

2.3.2 淘牛檢疫管理

The Culled Cow Quarantine Management

本公司嚴格遵守《中華人民共和國動物防疫法》、《國家病害動物和病害動物產品生物安全處理規程》、《中華人民共和國食品安全法》、《動物檢疫管理辦法》、《中華人民共和國農業部公告第278號獸藥休藥期相關規定》、《關於建立病死畜禽無害化處理機制的意見》等生物資產出售工作法律法規的要求,內部制定完整的淘牛管理體系和《生物管理制度》,優化防疫措施,嚴控由於管理不當導致患疫病淘牛的出售。 The Company strictly abides by the requirements of laws and regulations on the sale of biological assets such as the Animal Epidemic Prevention Law of the People's Republic of China, the National Biosafety Treatment Regulations for Diseased Animals and Diseased Animal Products, the Food Safety Law of the People's Republic of China, the Measures for the Administration of Animal Quarantine, the Announcement No. 278 of the Ministry of Agriculture of the People's Republic of China on the Relevant Provisions of the Withdrawal Period of Veterinary Drugs and the Opinions on Establishing a Harmless Treatment Mechanism for Sick and Dead Livestock and Poultry, formulates a complete internal management system and the Management System on Biological Assets, optimizes epidemic prevention measures and strictly controls the sale of infected cattle due to improper management.

- 出售淘汰活牛時需提前向當地動物衛生監督機構申報檢疫,未進行檢疫申報或未取得動檢部門檢疫 合格證牛隻不得出場;
 - When selling culled live cattle, it is necessary to declare quarantine to the local animal health supervision agency in advance, and cattle without quarantine declaration or without the quarantine certificate of the animal inspection department will not be allowed to enter the market;
- 各牧場牛隻出售前必須通過休藥期,各牧場牛隻淘汰時將牛隻休藥信息及證明文件隨同牛隻見證性 材料進行備案;
 - The cattle of each farm must pass the drug withdrawal period before they are sold. When culling cattle, each farm shall file the cattle withdrawal information and certification documents along with the cattle testimonial material;
- 牧場內部處置淘牛,要求符合牧場環評要求;三方處置,要求具備國家相關部門批准的許可手續; 政府相關部門統一處理,要求具備相關手續文件支持;
 - When the farm disposes of the culled cattle by itself, it must pass the environmental impact assessment requirements of the farm; and if the culled cattle are disposed of by third parties, they shall have the licensing procedures approved by the relevant state departments. Relevant government departments will handle such matters in a unified manner and relevant procedures and documents are required;



3. 優質產品 責任共贏

High-quality Products and Win-win Cooperation

3.1 追求品質奶源

Pursuing High-quality Milk Source

本公司嚴格遵守《中華人民共和國食品安全法》、《中華人民共和國產品質量法》、《中華人民共和國畜牧法》等法律法規,將品質安全放在首位,建立健全內部管理制度,避免產品召回及市場禁令而造成的重大運營風險,同時我們細化生產標準,全程質量把關,堅守初心,成為讓消費者放心的良心乳業。

The Company strictly abides by the Food Safety Law of the People's Republic of China, the Product Quality Law of the People's Republic of China, the Animal Husbandry Law of the People's Republic of China and other laws and regulations, and puts quality and safety first. We have established a sound internal management system to avoid significant operational risks due to product recalls and market bans. We also refined production standards, and ensured the quality of milk through the whole process, sticking to our original aspiration to become a conscientious dairy industry that reassures consumers.

報告期內,公司未發生產品及服務投訴事件,未發生產品召回事件、未收到市場禁令,亦未發生因安全 與健康理由而進行回收情況。

During the reporting period, the Company had no product and service-related complaints, no product recalls, no market bans, and no recalls for safety and health reasons.

3.1.1 原奶質量標準

Quality Standard of Raw Milk

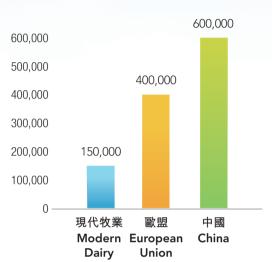
現代牧業站在全球視角,堅持高起點、高定位、高標準,通過先進的管理理念、設備設施、生產技術,讓牛奶品質以量化的數據與消費者溝通。我們所有原奶從擠奶、製冷及運輸、生產過程各個環節都在監控措施下完成,並以全球最嚴格的標準確保原奶質量。

From a global perspective, Modern Dairy adheres to the principle of high starting point, high positioning and high standard, and keeps consumers to be informed with quantitative data of milk through advanced management concepts, equipment and facilities, production technology. Every procedure in the production of raw milk, ranging from milking, refrigeration to transportation, was completed with monitoring measures, the quality of raw milk was therefore guaranteed in accordance to the most stringent standards in the world.

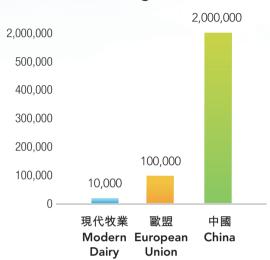
原料奶中的體細胞數量標準目前在中國相關指引要求是每1毫升不多於60萬個,在歐盟是每1毫升不多於40萬個,現代牧業的標準是每1毫升少於15萬個,比國家和歐盟標準還要嚴謹。微生物數量方面,歐盟的標準是每1毫升原料奶不能高於10萬個菌落形成單位(cfu),我國的要求不能高於200萬個cfu,現代牧業的要求是每1毫升原料奶少於1萬個cfu。

The standard of the number of somatic cell per 1 milliliter (ml) of raw milk is no more than 600 thousand cells according to the PRC relevant guidelines, 400 thousand cells per 1 ml in the European Union, and less than 150 thousand cells per 1 ml in Modern Dairy. The standard of Modern Dairy is more stringent than that of the PRC and European Union. With respect to the number of microorganism, the standard of the European Union is no more than 100 thousand colony-forming unit (cfu) per 1 ml of raw milk, and that of the PRC is no more than 2 million cfu per 1 ml, and that of Modern Dairy is less than 10 thousand cfu per 1 ml of raw milk.





微生物存量標準 Standard of the Number of Microorganism



3.1.2 原奶質量管控 Raw Milk Quality Control

現代牧業堅持「好牛自然產好奶」的品牌理念,採用深耕「種養加一體化」生產模式,引領奶牛規模化養殖,從種植、養殖、加工到產品完成,105道工序嚴格把控,實現了產業鏈、各環節零距離無縫銜接,生產過程無死角全面監管。公司高度重視原奶產品質量,將原奶合格率保持在100%作為原奶產品質量的重要衡量目標與企業長遠發展的生命線,制定原料過程監控檢驗計劃、原奶質量考評和《質量安全管理制度》、《到場原料質量控制管理制度》、《物料質量標準制度》等制度,規範從原料到場到原奶安全交付的全程關鍵環節。報告期內,原奶合格率100%。

Modern Dairy adheres to the brand concept of "good cows naturally produce good milk", adopts the production model of "planting, breeding and processing integration", and leads the large-scale breeding of dairy cows. From planting, breeding, processing to product completion, we strictly control 105 processes, realizing the zero-distance and seamless connection of the industrial chain and all links and the comprehensive supervision of the production process without dead ends. The Company attaches great importance to the quality of raw milk products, and deems maintaining the qualified rate of raw milk at 100% as an important measure of the quality of raw milk products and the key to its long-term development. The Company formulates the raw material process monitoring and inspection plans, the raw milk quality evaluation and the Quality Safety Management System, the Management System on Quality Control of Incoming Raw Materials, the Standard System on Materials Quality and other systems to standardize the key links in the whole process from the arrival of raw materials to the safe delivery of raw milk. During the reporting period, the qualification rate of our raw milk was 100%.

源頭把控 Source control

- 一 供應商管理:現代牧業根據國務院辦公廳〔2018〕43號文件要求,嚴格執行奶牛養殖環節使用的飼料、獸藥等投入品採購前的供應商評審工作;
 - **Supplier management:** According to the requirements of Document No. [2018] 43 of the General Office of the State Council, Modern Dairy strictly implements the evaluation of suppliers before purchasing feeds, veterinary drugs and other inputs used in dairy farming;
- 入場前把控:原料入場前的合規性檢查、感官檢測、衛生指標檢測、理化指標檢測四個方面監控均通過後方可投入使用;
 - **Check before entering:** The raw materials can be put into use only after they have been monitored in four aspects: compliance inspection, sensory inspection, hygienic inspection and physical and chemical inspection before entering the site;
- **不合格管理**:對庫存原料品質保持持續監控,每日對飼餵道TMR 日糧進行感官檢查,依據檢驗計劃對TMR日糧黃曲霉毒素及相關 指標進行監控,任何超出企業內控標準/和國家限量標準的原料 嚴格按照不合格原料標準處理。
 - Management of unqualified raw materials: Maintain continuous monitoring of the quality of the raw materials in stock, conduct sensory inspections of the TMR diets in the feeding channel every day, and monitor the aflatoxins and related indicators of the TMR diets according to the inspection plan. Any raw materials that exceed our internal control standards/national standards will be disposed of in strict accordance with the standards for unqualified raw materials.

生產控制 Production control	_	建立體系:公司建立各項SOP,各責任部門嚴格管理擠奶、設備清洗、牛奶存儲、拉奶等關鍵環節,並檢驗執行效果;公司建立並完善質量安全管理體系,堅持精益生產。報告期內,已有14家法人單位順利通過ISO19001質量管理體系認證: Establishing systems and mechanisms: The Company establishes various SOPs, and each responsible department strictly manages key links such as milking, equipment cleaning, milk storage and milk pulling, and checks the implementation effect. The Company establishes and improves the quality and safety management system and insists on lean production. During the reporting period, 14 legal entities have successfully passed the ISO14001 environmental management system certification; 成品控制:從日常監測、出場監測及不合格品處理三個環節控製成品質量。 Control of finished products: We control the quality of finished products from three aspects: daily monitoring, quality control on finished goods and handling of non-conforming products.
儲運管理 Storage and transportation management	_	出場監測:各牧場擠奶處從開始裝車到裝車結束後檢測合格出場,依據原奶出場項目監控計劃對牛奶各項指標進行檢測,並根據原奶出場控制指標標準進行判定,對出奶口鉛封/密碼鎖進行檢查; Quality control on finished goods: From the start of loading to the end of loading, the raw milk at the milking venue of each farm can be released only after passing the test, and the various indicators of the milk are tested according to the monitoring plan about the releasing of raw milk. We also make judgments according to the control index and standards of releasing raw milk, and check the lead seal/code lock of the milk outlet; 運輸監控:奶車安裝GPS,物流人員全程視頻記錄查驗過程,並由相關部門定期收集存檔。 Shipping monitoring: The milk truck is equipped with GPS, and the logistics personnel record the entire inspection process through video, which is regularly collected and archived by relevant departments.

質量追蹤 Quality tracking

牧場擠奶處每日關注工廠檢測指標結果,客戶工廠反饋廠牛指標不合格(或存在扣款情況的異常指標)的情況,相關部門及時跟蹤處理,溝通協調相關覆檢流程;若連續≥2車次或≥1天被客戶工廠因同一原因自檢或拒收且未解決,則定性為生鮮乳質量事故,責任牧場負責滙總信息報送相關中心,由品質保證部牽頭進行現場調研分析。

The milking department of the farm monitors the results of the factory inspection indicators every day. If the customer's factory reports that the indicators of cattle are unqualified (or there are abnormal indicators of payment deduction), the relevant departments will follow up and deal with them in a timely manner, and communicate and coordinate the re-inspection process; and if the goods are self-inspected or rejected by the customer's factory for more than two consecutive trips or more than 1 day due to the same reason which remains unresolved, it will be characterized as a raw milk quality accident. The responsible farm is responsible for summarizing the information and submitting it to the relevant center, and the Quality Assurance Department takes the lead in conducting on-site investigation and analysis.

加強管控 Strengthening control

- **建立質量戰略聯盟**:針對大客戶建立質量戰略聯盟,根據需求將 檢測前置到庫房,提高到場原料質量合格率;

Building quality strategic alliances: We have established quality strategic alliances for major customers, and pre-tested in the warehouse according to demand to improve the quality pass rate of incoming raw materials;

- 凍結整改提升:同一個供應商月度累計真菌毒素不合格達到5批次,對其凍結一個月處理,要求供應商調整貨源整改;

Pause for corrections and enhancements: If a supplier supplies 5 unqualified batches of mycotoxins in one month, we will suspend its supply of goods for one month and require it to adjust the source of supply and rectify;

- 探索先進工藝:全程自有的「種養加」一體化先進配套體系,保證了原奶營養純淨。「前牧後廠」模式實現了2小時快速加工工藝,原奶省去了存儲運輸等環節,充分保留了牛奶中的營養和生物活性物質。

Exploring advanced craftsmanship: Our self-own advanced system of "planting, breeding and processing integration" which covers the whole process ensures the nutritional purity of our raw milk. The model of "Farm in the Front and Factory at the Back" enables a 2-hour rapid processing process, which eliminates the need for storage and transportation of raw milk, and fully retains the nutrients and biologically active substances in the milk.

案例 Case study

優化雲雀實驗室信息管理系統,為純真鮮活保駕護航

Optimizing the information management system of the Lark laboratory to ensure the purity, truth, freshness and liveness of milk

公司優化雲雀實驗室信息管理系統,實現了從原輔料進場、過程指標監控、奶車出場到客戶質量回執 全鏈條管理,利用業務模塊將樣品批次形成串連關係作為追溯的主鏈條。相關附屬信息(送樣人員、接 樣人員、檢驗人員、審核人員、設備參數等)通過批次或時間附加到追溯鏈條中,形成全面質量追溯報 表。指標不合格的奶車將無法過磅出場,有效實現了不合格的原奶不出場。到場物料的進場也有同樣 的卡控,未達標準的物料車將不能過磅入場,有效實現不合格的原料不入場。實現奶質全鏈條監控與 追溯,為原奶質量保駕護航。

The Company optimized the information management system of the Lark laboratory, and realized the whole chain management from the entry of raw and auxiliary materials, the monitoring of process with indicators, the departure of milk trucks to the customer's quality receipt. We use the business module to form a serial relationship between sample batches as the main chain of traceability. Relevant ancillary information (sample senders, sample receivers, inspectors, reviewers, equipment parameters, etc.) is attached to the traceability chain by batch or time to form a comprehensive quality traceability report. Milk trucks with unqualified indicators will not be allowed to enter the venue by weighing, effectively preventing unqualified raw milk from entering the venue. The entry of incoming materials is also subject to the same entry monitoring. The material trucks that do not meet the standard will not be allowed to enter the venue by weighing, effectively preventing unqualified raw materials from entering the venue. In this way, we will realize the whole chain monitoring and traceability of milk quality to ensure the quality of raw milk.



金獎八連冠 優質乳工程

Eight consecutive gold medals and the Quality Milk Project

2014年,現代牧業常溫純牛奶榮獲第53屆世界食品品質評鑒大會金獎,至2021年已經連續八年榮膺金獎,刷新了世界範圍內純牛奶的獲獎記錄。 In 2014, Modern Dairy's room temperature pure milk won the Gold Award at the 53rd Monde Selection, and by 2021, it has won the Gold Award for eight consecutive years, setting a new award-winning record for pure milk products worldwide.



現代牧業旗下所有牧場全數通過「優質乳工程」認證,也是國內首家也是唯一一家巴氏殺菌奶和UHT滅菌奶,同時通過國家「優質乳工程」驗收的企業,成為全國首家通過「優質乳工程 - 特級乳」評價驗收的集團化牧場企業。

All the farms under Modern Dairy have passed the "Quality Milk Project" certification. Modern Dairy is also the first and only company in China that has pasteurized milk and UHT sterilized milk and has passed the acceptance of the national "Quality Milk Project". It has become the first group farm enterprise in China that has passed the evaluation and acceptance of "Quality Milk Project – Premium Milk".



3.2 聚焦客戶福利

Focusing on Customers' Benefits

本公司嚴格遵守《中華人民共和國消費者權益保護法》《中華人民共和國廣告法》等法律法規的要求,制定《產品投訴補貨管理辦法》等內部制度,落實維護消費者合法權益。

The Company strictly abides by the requirements of the Consumer Rights Protection Law of the People's Republic of China, the Advertising Law of the People's Republic of China and other laws and regulations, and formulates internal systems such as the Product Complaints and Replenishment Management Measures to implement and safeguard the legitimate rights and interests of consumers.

我們高度重視客戶信息安全,健全保密制度和預防措施,嚴防客戶隱私信息泄露,避免造成潛在風險。我們時刻關注客戶評價,定期收集數據進行消費者滿意度分析,洞察客戶深層需求,優化管理體系,改進生產工藝,全面提升客戶滿意度。對於客戶反饋,公司建立完善處置流程,及時妥善處理,與客戶建立相互信任的可持續友好關係。同時,我們高度重視並落實質量追蹤制度,嚴格定義生鮮乳質量事故,全面提升產品可追溯能力,當客戶工廠反饋到廠牛奶指標不合格等情況時,要求各單位半小時內進行滙總分析反饋至品質保證部及計劃調度部開啟覆檢流程,並100%追蹤召回問題產品(如有),持續保持客戶對公司的高度信任。

We attach great importance to the security of customer information, improve the confidentiality system and preventive measures, and strictly prevent the leakage of customer privacy information to avoid potential risks. We always pay attention to customer evaluations, regularly collect data for customer satisfaction analysis, in order to gain insight into customers' deep needs, optimize management systems, improve production processes and comprehensively improve customer satisfaction. For customer feedback, the Company has established a complete handling process and will handle properly and in a timely manner, so as to establish a sustainable and friendly relationship of mutual trust with customers. At the same time, we attach great importance to and implement the quality tracking system, strictly define the quality accidents of raw milk, and comprehensively improve the traceability of products. When the customer's factory reports that the milk indicators are not up to standard, we require each unit to conduct a summary analysis and feedback to the Quality Assurance Department and the Planning and Scheduling Department within half an hour to start the re-inspection process, and track and recall all the unqualified products (if any), so as to continue to maintain a high level of customers' trust in the Company.

3.3 保障知識產權

Protecting Intellectual Property Rights

現代牧業在積極探索新產品、研究創新技術的同時,嚴格遵守《中華人民共和國專利法》、《中華人民共和國商標法》及《中華人民共和國專利實施細則》等法律法規,制定和完善內部相應的知識產權管理體系,規範知識產權管理工作,宣傳普及專利知識,強化專職部門對侵權行為的敏感度,建立安全防線,有效規避侵權行為所導致的聲譽風險、經濟損失等,建立行之有效的應對措施和處置流程,及時處理訴訟案件,保護本公司的合法權益。

While actively exploring new products and researching innovative technologies, Modern Dairy strictly abides by the Patent Law of the People's Republic of China, the Trademark Law of the People's Republic of China and the Detailed Rules for the Implementation of Patents of the People's Republic of China. We formulate and improve the corresponding internal intellectual property rights management system, standardize intellectual property rights management work and publicize and popularize patent knowledge, so as to strengthen the sensitivity of responsible departments to infringements, establish a security line of defence and effectively avoid reputation risks and economic losses caused by infringements. We have also established effective response measures and handling procedures to deal with litigation cases in a timely manner and thus protect the legitimate rights and interests of our Company.

3.4 堅守責任供應

Persistent and Responsible Supply

現代牧業深耕上游,積極佈局產業鏈資源,將供應商視為重要合作夥伴和公司可持續發展戰略中的重要 一環。

Modern Dairy is deeply engaged in upstream industries and has been actively deploying industrial chain resources, and it regards suppliers as important partners and an important part of the Company's sustainable development strategy.

現代牧業內部創立供應商管理體系,提升供應鏈綜合競爭力,推進奶源供給改革和產品創新,實現源頭的可持續發展。我們建立《奶源事業部統採物資供應商准入管理制度》、《供應商評審標準》及《供奶方投入品、服務中心、供奶方質量安全管理制度》,秉承「質量是一切基礎」的質量理念,堅持「四不」原則(不合格的客戶不合作、不合格的原料不入場、不合格的飼料不轉序、不合格的原奶不出場),優化供應商資源,聚焦全過程質量管理,完善質量控制標準。

Modern Dairy has established a supplier management system internally to enhance the comprehensive competitiveness of the supply chain and promote the reform of milk supply and product innovation, aiming to achieve sustainable development at the source. By establishing the Access Management System for Suppliers of Unified Purchase of Materials in the Milk Source Business Department, the Supplier Evaluation Standards and the Quality and Safety Management System for Milk Suppliers' Inputs, Service Centers and Milk Suppliers, we uphold the quality concept of "quality is the foundation of everything", adhere to the principles of "do not cooperate with substandard customers, do not allow substandard raw materials to enter, do not transfer substandard feeds, and do not allow substandard raw milk to release into the market", optimize supplier resources and focus on the whole process of quality management to improve quality control standards.

現代牧業遵循公開、公平、公正的採購原則,開展供應商的開發、評審、管理工作,優化本公司的供應 商資源,對供應商進行嚴格的選、用、育、留,實現對供應商准入、日常監督、供應商評價的全方面管 理。

Modern Dairy develops, evaluates and manages suppliers by following the principles of open, fair and impartial procurement, and optimizes the Company's supplier resources. We also carry out strict selection, use, cultivation and retention of suppliers to achieve comprehensive management of supplier access, daily supervision and supplier evaluation.

准入評審 Admission review

- 成立供應商准入評審小組,依據各類物資評審標準,對新晉供應 商進行准入評審,遵循統一評審原則,嚴格審核供應商資質。其 中飼料類供應商的准入標準包括對供方控制、品控管理及可追溯 性、生產過程控制及可追溯性、召回及投訴處理、人力資源等環 境及社會方面的考量;

Establish a supplier access review team to conduct access review for new suppliers according to review standards for various types of materials. The review follows the unified principles, and the supplier's qualification is strictly reviewed. Among them, the access standards for feed suppliers include supplier control, quality control management and traceability, production process control and traceability, recall and complaint handling, human resources and other environmental and social issues;

- 依據質量風險等級,供應商類別、物料類別,將供應商分級管控,在准入環節明確合作範圍,確定評審方式。
 Suppliers are graded according to quality risk level, supplier category and material category, and the scope of cooperation and the review method are clarified in the admission process.
- 供應商環境指標及社會指標也作為供應商准入評審的重要指標。 Supplier's environmental indicators and social indicators are also important indicators of supplier access review.

合作共建 Cooperation

- 廉潔共建。與供應商簽署陽光協議,積極維護招投標、詢比價、 商務洽談、業務合作公平、公正,營造守法經營、陽光誠信的合 作氛圍;
 - Integrity. Sign the "Sunshine Agreement" with suppliers to actively maintain fairness and impartiality in bidding, inquiry and comparison, business negotiation and business cooperation, so as to create a law-abiding and honest cooperation atmosphere;
- 安全共建。與供應商簽訂安全協議,明確安全生產管理職責與要求;確保供應商按照要求為員工購買保險,確保證照、保險齊全;針對相關供應商開展危險源辨識及安全生產教育和培訓工作。

Safety. Sign a safety agreement with the suppliers to clarify the responsibilities and requirements for safe production and management; ensure that suppliers purchase insurance for their employees as required, and ensure that their certificates and insurance are complete; and carry out hazard identification and safety production education and training for relevant suppliers.

持續監督 Continuous monitoring

- 定期(每月)對全部供應商進行例行全方位評審,以識別供應鏈各環節的環境及社會風險。尤其是針對特殊物料的定期抽查以及供應商在供應過程中有無超標排放廢水等危害環境的行為存在,完成供應商週期性的業務回顧;
 - Regularly (on a monthly basis) conduct a routine comprehensive review of all suppliers to identify environmental and social risks in each link of the supply chain. In particular, for the regular random inspection of special materials and whether the supplier has an excessive discharge of wastewater and other environmental hazards in the supply process, complete the supplier's periodic business review;
- 實行供應商應商分級管理,並通過定期質檢及溝通,形成《供應商綜合評價表》,最終以供應商評價為依據,淘汰產品質量多次不合格、出現違法違紀現象的供應商,與優質供應商建立長期合作關係。
 - Implement hierarchical management of suppliers, and fill in the Supplier Comprehensive Evaluation Form through regular quality inspection and communication. Finally, based on the suppliers evaluation, we will eliminate suppliers whose product quality is repeatedly unqualified and have violated laws and disciplines, and establish long-term cooperative relations with high-quality suppliers.

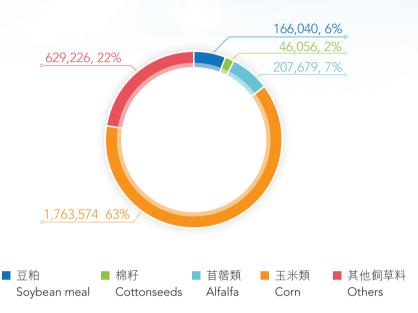
評價改進 Evaluation and improvement

- 設立專門部門負責跟蹤供應商評審問題整改情況,確保不合格項 得到有效整改;
 - Set up special departments responsible for tracking the rectification of supplier review issues to ensure that unqualified items are effectively rectified;
- 制定嚴格的一票否決管理規定,針對不合格供應商給予取消合作。

Formulate strict one-vote veto management regulations, and cancel cooperation for unqualified suppliers.

本公司將供應商環境及社會管理表現視為準入評審及持續監督的關鍵指標,在採購管理中,優先選擇環 保供應商及產品,倡導供應商關注環境及社會風險管理,如環境方面,現代牧業優先購買環保產品;在 考察供應商廠房與設施時,現場查看生產用燃氣等氣體不對環境造成污染,產煙塵量大情況設置煙塵回 收系統;要求具備獨立廠房,廠區周圍沒有影響飼料產品質量安全的污染源;廢棄物合規合法處理;對 豆類產品進行農殘第三方檢測監控,並對不合規情況給予限期整改或供應商准出管理,避免因為過度 使用農藥對土壤造成污染,大豆的種植是造成森林砍伐的重要原因,公司採購的豆粕中70%來自中糧集 團,其致力於減少森林砍伐。在社會方面,現代牧業針對供應商誠信經營資質等方面制定監管要求,並 將供應商安全管理水平加入考量範圍,包括是否建立安全生產責任制、是否建立防止危險作業機制等安 全關鍵指標,引進安全管理水平優質的供應商。報告期內,公司對全部供應商執行了相應的審核慣例。 The Company regards suppliers' environmental and social management performance as a key indicator for access review and continuous monitoring. In procurement management, we give priority to environmentally friendly suppliers and products, and advocate suppliers to pay attention to environmental and social risk management. For example, in terms of the environment, Modern Dairy gives priority to purchasing environmentally friendly products. When inspecting the factories and facilities of the supplier, Modern Dairy requires that the production gas and other gases do not pollute the environment and a fume recovery system should have been set up if the amount of fume and dust is large; the supplier has an independent factory, and there are no pollution sources around the factory that affect the quality and safety of feed products; and the supplier disposes of waste in compliance with laws and regulations. We carry out third-party testing and monitoring of pesticide residues on soy products, and provide timelimited rectification or supplier approval management for non-compliance to avoid soil pollution due to excessive use of pesticides. The cultivation of soybeans is an important cause of deforestation. 70% of the soybean meal purchased by the Company comes from the COFCO Group, which is committed to reducing deforestation. In terms of society, Modern Dairy formulates regulatory requirements for suppliers' integrity management qualifications and other aspects, and includes the supplier's safety management into the scope of consideration (including whether to establish accountability systems on safe production or whether to establish key safety indicators such as a mechanism to prevent dangerous operations), aiming to introduce suppliers with excellent safety management. During the reporting period, the Company implemented the corresponding audit practices for all suppliers.

飼料採購量(噸)及比例 Purchase Amount (in Tons) and Proportion of Feeds



按品類劃分的供應商數量及比例 Number and Percentage of Suppliers by Category



指標 Indicator	單位 Unit	2021年 2021
合作供應商總數	個	745
Total number of cooperative suppliers	Supplier	
國外	個	15
Overseas	Supplier	
國內	個	730
Domestic	Supplier	
貿易商數	個	526
Number of traders	Supplier	
廠家數	個	219
Number of manufacturers	Supplier	
向供應商執行審核有關慣例數目	個	745
Number of practice audits performed with suppliers	Supplier	
供應商年度評價率	%	100
Supplier Annual Evaluation Rate		

源源不斷的新鮮血液對公司的發展壯大具有重要意義。現代牧業注重保障員工權益,致力於提供多元、平 等、安全、和諧的發展平台,創建和諧的勞動關係。

The continuous supply of talents is of great significance to the development and growth of the Company. Modern Dairy pays attention to protecting the rights and interests of employees, and is committed to providing a diversified, equal, safe and harmonious development platform and creating a harmonious labour relationship.



4. 以人為本 共創美好

People-oriented and Co-development for Better Future

4.1 謀福利的「養牛人」 Responsible "Cow Keeper"

4.1.1 基本權益保障

Protection of Basic Rights and Interests

本公司嚴格遵守《中華人民共和國勞動法》、《中華人民共和國勞動合同法》、《中華人民共和國未成年人 保護法》及《禁止使用童工規定》等國家法律法規的要求,堅持以人為本,明確員工權益、福利、晉升、 工時、休假等規定,加強民主管理,尊重人權,建立健全職工反饋與溝通機制,優化員工福利,打造多 元、平等、開放的人才隊伍。報告期內,公司未發生違反員工權利或健康與安全有關的投訴事件。

The Company strictly follows the requirements of national laws and regulations such as the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China, the Law of the People's Republic of China on Protection of Minors and the Regulations on Prohibition of Child labour. We adhere to the people-oriented principle, clarify regulations on employee rights, benefits, promotions, working hours and vacations, strengthen democratic management, respect human rights, establish and improve employee feedback and communication mechanisms, and optimize employee benefits, so as to create a diverse, equal and open talent team. During the reporting period, the Company had no complaints about violation of employees' rights or complaints related to health and safety.

平等僱傭 Equal Employment

公司制定了《人力資源制度滙編》、《員工行為準則》、《基礎員工管理手冊》及《離職操作手冊》等制度及管理辦法,完善內部管理,遵循平等僱傭原則,堅持男女平等、同工同酬。同時注重員工多元化,公平對待不同國籍、種族、年齡和文化背景的員工,尊重人權,禁止歧視、虐待或不人道待遇、限制員工自由等行為發生,合理合法保障員工權益。同時,我們積極通過校園招聘、社會招聘等方式招納人才,並與國內多所專業類院校達成校企合作,廣泛招賢納士,加強人才隊伍建設。

The Company has formulated systems and management methods such as the Human Resources System Compilation, the Staff Code of Conduct, the Basic Staff Management Manual and the Resignation Operation Manual to improve internal management. We follow the principle of equal employment and insist on equality between men and women and equal pay for equal work. We also value employee diversity and treat employees of different nationalities, races, ages and cultural backgrounds fairly. We respect human rights and prohibit discrimination, abuse or inhuman treatment and restrictions on employees' freedom, thus reasonably and legally protecting the rights and interests of employees. At the same time, we actively recruit talents through campus recruitment, social recruitment, etc., and have reached school-enterprise cooperation with many domestic professional colleges and universities to recruit talents extensively and strengthen the construction of talent teams.

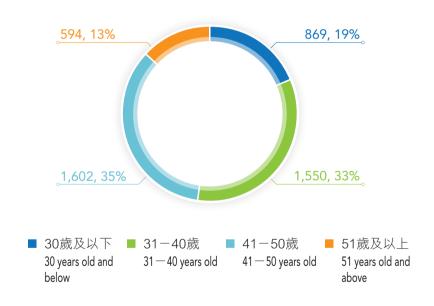
報告期內,本公司勞動合同簽訂率100%,皆為直接僱傭形式,且未發生與上述描述相關的違反人權的投訴事件。截至報告期末,本公司共有員工4,615人(不包括報告期內因收購而新增加的2,157名新員工),正式員工4,615人,無兼職員工;男性員工3,106人,佔比67%,女性員工1,509人,佔比33%;女性員工在管理職級中佔比19.60%,女性員工在初級管理職級中佔比19.92%。

During the reporting period, the labour contract signing rate of the Company was 100%, all of which were direct employment, and there were no complaints of human rights violations related to the above description. As at the end of the reporting period, the Company had a total of 4,615 employees (excluding 2,157 new employees arising from the acquisitions during the reporting period), including 4,615 regular employees and no part-time employees. There were 3,106 male employees, accounting for 67%, and 1,509 female employees, accounting for 33%. Female employees held 19.60% of management positions and 19.92% of junior management positions, respectively.

按照年齡、僱傭類型及地區劃分如下:

The employee structure by age, employment type and region is as follows:

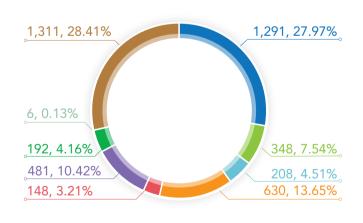
按年齡組別劃分的員工數量及比例 Number and Percentage of Employees by Age Group



按僱用類型劃分的員工數量及比例 Number and Percentage of Employees by Employment Type



按地區劃分的員工人數及比例 Number and Percentage of Employees by Region



- 安徽省 Anhui
- 四川省 Sichuan
- 河北省 Hebei
- 陝西省 Shaanxi
- 黑龍江省 Heilongjiang
- 內蒙古
- Inner Mongolia
 - 吉林省 Jilin
- 山東省 Shandong
- ■西藏 Tibet

杜絕童工及強制勞工

Elimination of Child Labour and Forced Labour

公司對任何形式的強制勞工和童工持零容忍態度。本公司依法合規審理員工入職資質,杜絕聘用童工、強迫勞動等一切可能非法的用工行為。設有員工熱線等舉報申訴途徑,鼓勵員工及時舉報違規用工行為。若發現違規情況,將會積極採取處理行動,保障公司用人體系平穩運行。報告期內,本公司未發生使用童工及強迫勞工等違規情況。

The Company has zero tolerance for forced and child labour in any form. The Company reviews the entry qualifications of employees in compliance with laws and regulations, and eliminates all possible illegal employment practices such as child labour and forced labour. We have hotlines and other reporting and grievance channels to encourage employees to report violations of employment practices in a timely manner. If violations are found, we will actively take action to ensure the smooth operation of the Company's talent system. During the reporting period, the Company did not have any violations such as the use of child labour and forced labour.

• 員工合法權益保障

Protection of the Legitimate Rights and Interests of Employees

在薪酬福利方面,公司避免拖欠工資等損害員工合法權益的行為,並依照國家及地方人社局規定為員工辦理五險一金,並指定合理的薪酬增長幅度,2021年對員工薪資進行普調,人均工資保持增長。公司嚴格執行國家法定節假日休假安排,並保證員工享有年假、帶薪病假等休假權,公司規定員工因患病或非因工負傷需要停工醫療時,根據員工實際參加工作年限和本公司工作年限,給予員工最短三個月最長二十四個月的帶薪病假時長。同時公司進行工時備案,嚴格規定工時制度,保障員工休假權益。

In terms of salary and benefits, the Company avoids delinquent wages and other acts that damage the legitimate rights and interests of employees, and contributes to five major insurances and housing provident funds for employees in accordance with the regulations of the state and local human resources and social security bureaus. We also designate a reasonable salary rise. In 2021, we made general adjustments to employee salaries, and the per capita salary continued to increase. The Company strictly implements the national statutory holidays and vacation arrangements, and ensures that employees enjoy annual leave, paid sick leave and other leave rights. The Company stipulates that when employees need to stop working for medical treatment due to illness or non-work-related injury, we will give employees a minimum of 3 months and a maximum of 24 months of paid sick leave according to their actual total working years and the servicing years with the Company. We also record working hours and strictly regulate working hours to protect employee's rights to leave.

公平晉升

Fair Promotion

公司高度重視人才建設,制定公平的晉升機制,保證晉升流程高透明度,確保每位員工享有平等的晉升資格,員工可以通過自我推薦和崗位競聘的形式,經過考評獲得晉升機會。

The Company attaches great importance to talent development and formulates a fair promotion mechanism to ensure high transparency of the promotion process, so that every employee can enjoy the equal promotion. Employees can get promotion opportunities upon passing assessments through self-recommendation or job competition.

4.1.2 安全保障

Safety and Security

本公司嚴格遵守《中華人民共和國安全生產法》、《中華人民共和國職業病防治法》、《生產安全事故報告和調查處理條例》、《中華人民共和國職業病防治法》、《中華人民共和國國家職業衛生標準》等國家法律法規,制定《安全生產事故管理制度》、《安全生產應急管理制度》、《生產安全事故調查與問責管理制度》、《危險作業管理制度》、《粉塵防爆安全管理制度》等制度,並對相關政策及制度進行每年一次的內部審計,確保相關制度政策落地,保證安全生產運營。

The Company strictly abides by the Safety Production Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases, the Regulations on the Reporting, Investigation and Handling of Production Safety Accidents, the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases, the National Occupational Health Standards of the People's Republic of China and other national laws and regulations, and formulated the Safety Production Accident Management System, the Safety Production Emergency Management System, the Production Safety Accident Investigation and Accountability Management System, the Hazardous Operation Management System, the Dust Explosion-proof Safety Management System and other systems. We conduct an annual internal audit on relevant policies and systems to ensure the implementation of relevant systems and policies and safe production and operation.

安全管理體系

Safety Management System

公司各牧場建立並持續完善ISO 45001職業健康安全管理體系,並致力於在各牧場間獲得更廣泛的認證。 已有14家法人單位順利通過ISO 45001職業健康安全管理體系認證,各體系在各單位內持續穩定推進運行,並在2021年通過了監督審核。

The Company's farms have established and continuously improve the ISO 45001 occupational health and safety management system, and are committed to obtaining more extensive certification for the farms. 14 legal entities have successfully passed the ISO 45001 occupational health and safety management system certification which continues to operate steadily in each entity, and have also passed the supervision and audit in 2021.

生產安全

Production Safety

- 持續推動安全生產標準化建設。完善安全管理制度和操作規程,規範生產行為;
 Continuously promoting the standardization of production safety. Improve the safety management system and operating procedures, and standardize production behaviours;
- 排查治理安全隱患。公司將「零安全事故」目標逐級落實到各牧場,組織各牧場部門主管和一線員工識別現場危險源,建立防範措施,如針對重點區域動火須制定現場監火人,保證消防滅火器材齊全,作業後確保消除火種:為做好各單位現場粉塵治理,公司明確粉塵防爆各項管理要求,制定現場安全檢查表,並加強粉塵區域員工安全培訓工作,組織各單位做好隱患排查與治理工作:Investigating and managing security risks. The Company implements the goal of "zero safety incidents" to each farm step by step, organizes the department supervisors and front-line employees of each farm to identify on-site dangerous sources, and establishes preventive measures. For example, for fires in key areas, on-site fire monitors must be designated to ensure that fire-fighting equipment is complete and fires are eliminated after operation; and regarding the on-site dust control of each unit, the Company clarifies various management requirements for dust explosion protection, formulates on-site safety checklists, strengthens safety training for employees in dust areas, and organizes various units to investigate and control hidden dangers;
- 採取預防措施。為員工發放勞動防護用品,做好自身防護工作;制定《較大風險作業10條保命準則》,全面提高員工安全風險防範意識;
 Taking precautionary measures. We distribute labour protection articles for employees to protect themselves, and formulate the 10 Life-saving Guidelines for Operations with Large Risks to comprehensively improve employees' awareness of safety risk prevention;
- 完善安全生產責任制。為了規範生產安全事故信息報告、調查與問責工作,推動落實「管生產必須 管安全、管業務必須管安全」的新安全發展理念,堅決杜絕死亡事故的發生,公司完善安全生產管 理責任制。在推動落實新安全發展理念的過程中,各相關部門躬身入局,對推動安全生產工作起到 了示範和標桿作用。
 - Improving the safety production accountability system. In order to standardize the information reporting, investigation and accountability of production safety accidents, we promote the implementation of the new safety development concept of "managing production safety and managing business safety", so as to resolutely prevent the occurrence of fatal accidents. The Company has been improving the safety production management accountability system. In the process of promoting the implementation of the new concept of safe development, all relevant departments must be pragmatic and play an exemplary and benchmarking role in promoting safe production.

安全生產管理委員會 Safety Production Management Committee	- 建立安全生產目標指標,對各單位安全績效追蹤、激勵。 Establish safety production target indicators, and track and motivate the safety performance of each unit.
	 制訂生產安全事故的報告、調查、處理和問責制度。 Develop a reporting, investigation, handling and accountability system for production safety incidents.
	- 統一制訂生產安全事故的整改要求,並審核評價各單位整改措施的可行性。 Formulate the rectification requirements for production safety accidents uniformly, and review and evaluate the feasibility of rectification measures of each unit.
人力資源部 Human Resources Department	- 明確集團、中心、各牧場架構及編製設定,每個牧場配置1-3名 負責安全生產相關事宜的專職人員,其中至少1名為主管,歸牧 場總經理直管,完善安全管理人員配置。 Clarify the structure and establishment of the Group, the center and each farm. Each farm shall have one to two full-time personnel responsible for matters related to safety production, at least one of whom shall be the supervisor and shall be directly accountable to the general manager of the farm and be responsible for improving the allocation of safety management personnel.
黨群辦公室 The Party and the Masses Affairs Office	- 牽頭推動10條保命準則動漫視頻拍攝,服務一線精準化風險作業管控,提高員工的學習熱情。 Take the lead in promoting the animation video shooting of 10 life-saving principles, serve the front-line precision risk operation and control, and improve employees' enthusiasm for learning.
	 三年從工會費用中劃撥150萬元,專項用於推動班組安全文化建設和安康杯活動開展。 Allocate RMB1.5 million out of the labour union expenses within three years to promote the construction of team safety culture and the development of Ankang Cup.

採購部 Purchasing Department	- 組織召開相關方安全共建項目。對物流運輸、勞務外包及設備安裝、維修等業務的50餘家供應商,約100人進行安全賦能,與相關方一道,形成安全共識,共建現代牧業安全文化基石。 Organize and convene the joint security projects with relevant parties. Provide safety support to more than 50 suppliers (approximately 100 participants) in logistics transportation, labour outsourcing, equipment installation, maintenance and other businesses, and work with relevant parties to form a safety consensus and jointly build the cornerstone of Modern Dairy's safety culture.
運營支持部 Operation Support Department	- 運營二中心積極與國外養牛同行進行溝通交流牛隻傷害的防護措施,通過國外牛隻傷害視頻學習、牧場人員辨識奶牛行為及考試等進行專項賦能。 The No. 2 Operation Center actively communicates with foreign cattle-raising counterparts on protective measures for cattle injury, and provides special support through the learning of oversea video of cattle injury, identification of dairy cattle behaviours and examinations by farm personnel.

職業健康

Occupational Health

- 公司在《中華人民共和國國家職業生產標準》的指引下,制定《員工共體檢制度》等內部管理制度,定期組織員工體檢,對職業病採取早發現、早防範。報告期內,職業病體檢覆蓋率為100%,補充醫療保險覆蓋率為100%,補充商業保險覆蓋率為100%;
 - Under the guidance of the National Occupational Production Standards of the People's Republic of China, the Company has formulated internal management systems such as the General Medical Examination System for Employees, and regularly organizes employee physical examinations to take early detection and prevention of occupational diseases. During the reporting period, the coverage rate of occupational disease medical examination was 100%, the coverage rate of supplementary medical insurance was 100% and the coverage rate of supplementary commercial insurance was 100%;
- 為提高員工安全意識,增強員工安全技能,公司每月定期組織各單位為全員開展一次安全知識培訓,內容涵蓋安全工作各領域,同時各牧場內部每月組織全員開展安全知識培訓,通過兩個層級的培訓取得了良好效果。培訓後通過考試的方式組織各牧場同步驗證培訓效果,全面夯實員工安全知識;
 - In order to improve employees' safety awareness and enhance their safety skills, the Company regularly organizes each unit to carry out safety knowledge training for all employees every month, covering all areas of safety work. Each farm also organizes safety knowledge training for all staff on a monthly basis. Both levels of training achieved good results. After the training, all farms will be organized to verify the effect of the training synchronously through examinations, so as to comprehensively consolidate the safety knowledge of employees;
- 公司支持對外安全管理經驗、安全知識交流,並鼓勵各牧場積極向當地村、鎮、縣、市等相關報刊、媒體等進行宣傳報送。
 - The Company supports the external exchange of safety management experience and safety knowledge, and encourages its farms to actively publicize such experience and knowledge among local villages, towns, counties, cities and other relevant newspapers, media, etc.

施工安全

Construction Safety

- 公司高度重視工程承包方施工過程中的安全問題,確保針對所有在建項目做好安全管理,制定《安全生產管理制度承包商管理》制度,下發《施工過程規範要求》、《現場安全施工規範要求》、《新建項目安全環保技術標準》(試行)《供應商工作場所安全政策規定》等規範文件,從資格審查,進廠(場)把關、過程監管到驗收評級,保證過程標準化、規範化、統一化,從而減少安全事故的發生:
 - The Company attaches great importance to the safety issues of the project contractors during the construction process, and ensures the safety management of all projects under construction. We have formulated the Safety Production Management System Contractors Management and issued normative documents such as the Construction Process Specification Requirements, the On-site Safety Construction Specification Requirements, the Safety and Environmental Protection Technical Standards for New Projects (Trial) and the Supplier Workplace Safety Policy Regulations. We ensure the standardization, normalization and unification of the process from qualification review, factory (field) check, process supervision to acceptance rating, thereby reducing the occurrence of safety accidents;
- 定期對承包商施工人員進行安全文明培訓,在施工前對所有施工人員進行技術安全交底和三級安全 教育;
 - Regularly conduct safety training for the contractor's construction personnel, and provide technical and safety disclosure and three-level safety education to all construction personnel before construction;
- 增加承包商施工現場安全標誌,除設置防護設施與安全標誌外,夜間設紅燈示警,並配專人看護:
 Increase the safety signs on the construction site of the contractor. In addition to setting up protective facilities and safety signs, red lights are set up to warn at night, and special guards are assigned;
- 對承包商施工現場安全情況進行日檢、周檢及月檢,確保施工安全。
 Conduct daily, weekly and monthly inspections on the contractor's construction site to ensure construction safety.

防疫安全

Epidemic Prevention Safety

- 建立完備的防疫制度體系,如牧場出入管理制度、生產區防疫管理制度、人員防護管理制度以及牛群防疫管理制度等,嚴格規範人員防護標準及車輛消毒標準,參照國家勞動防護用品發放標準、根據工種發放職業衛生防護用品,並為員工提供定期免費職業病健康體檢、建立職業健康監護檔案: Establish complete epidemic prevention systems such as the farm access management system, the epidemic prevention management system for production areas, the management system for personnel protection and the management system for cattle epidemic prevention; and strictly regulate personnel protection standards and vehicle disinfection standards, issue occupational health protection supplies according to the national labour protection supplies distribution standards and types of work, and provide employees with regular free occupational disease health examinations and establish occupational health monitoring files;
- 建立健全防疫組織架構,明確職責分工,規定疫情防控各環節關鍵執行要點,確保疫情全面管控; Establish and improve the organizational structure of epidemic prevention, to clarify the division of responsibilities, stipulate the key implementation points of each link of epidemic prevention and control and ensure comprehensive control of the epidemic;
- 制定疫情防控應急預案,制定疫情預防措施,疫情應急工作領導小組,明確應急響應及處置步驟。 Formulate emergency plans for epidemic prevention and control, develop epidemic prevention measures, establish leading groups of epidemic emergency response work, and clarify emergency response and disposal steps.

案例 Case study

牧安雲系統上線 The launch of Mu'an Cloud (牧安雲) System

為加強安全風險管理,現代牧業上線「牧安雲」系統,該系統實現了新安法要求的風險分級管控,集成了隱患排查、治理信息化平台功能。該系統健全風險管控計劃,並明確風險點、風險管控級別以及所屬負責單位,同時對出現的安全隱患進行全面記錄,並明確整改情況以及複查情況。此外,該系統通過AI圖像自動識別功能,對於出現在高危區域的人員進行提醒,特別是對關鍵區域人員未佩戴安全帽、安全帶情況進行記錄及現場音響播報提醒。該系統的上線加大了安全隱患排查力度,提升了安全風險管理能力。

In order to strengthen safety risk management, Modern Dairy launched the Mu'an Cloud (牧安雲) System. The system realizes the risk classification management and control required by the new security law, and integrates the functions of hidden danger investigation and the information-based governance platform. The system can improve the risk management and control plan, and clarify the risk points, risk management and control levels and responsible units. At the same time, it can comprehensively record the safety hazards that appear, and clarify the rectification and review situations. In addition, the system uses the Al image automatic recognition function to remind people who appear in high-risk areas, especially when people in key areas are not wearing helmets and seat belts, recording and on-site audio broadcast reminders will be made. The launch of the system has intensified the investigation of potential safety hazards and improved the management capability of safety risks.

報告期內,公司在安全管理體系、生產安全、施工安全、職業健康、防疫安全等方面開展多項舉措,充分確保生產及人員安全。2021年度,公司未發生健康與安全相關的投訴事件、未發生火災事故、職業衛生、防疫事故及勞資糾紛事件。

During the reporting period, the Company carried out a number of measures in terms of safety management system, production safety, construction safety, occupational health and epidemic prevention safety to fully ensure the safety of production and personnel. In 2021, the Company recorded no health and safety-related complaints, fire accidents, occupational health and epidemic prevention accidents and labour disputes.

指標名稱 Indicator	指標單位 Unit	2021年 2021	2020年 2020	2019年 2019
因工亡故人數 Work-related fatalities	人 Person	1 (註)(Note)	0	0
比率 Percentage	%	0.02%	0	0
指標名稱 Indicator		指標單位 Unit		2021年 2021
因工傷損失工作日數 Days lost due to work-related injuries		天 Days		1,310
工傷事故數 The number of work-related accidents		件 Pieces		38
工傷人數				

註: 該例因工亡故事件由於意外跌落造成,事故發生後本公司已迅速進行工傷保險、商業保險等申報,並全面妥善處理。

Note: Such work-related fatality was caused by an accidental fall. After the accident, the Company promptly declared work-related injury insurance, commercial insurance and other insurances and handled it in a comprehensive and proper manner.

4.2 知進取的「養牛人」

Ambitious "Cow Keeper"

公司注重為員工提供終生學習的機會、培養員工終身就業的能力,我們高度重視人才培養,向員工提供了便捷多樣的學習提升機會,助力公司內部人才培養和發展,通過構建高素質職業人才梯隊增強公司核心競爭力。同時,我們尊重個性,注重員工滿意度與參與度,適應和包容多樣的價值觀和行為模式,支持和幫助員工發揮潛力,培養和儲備持續發展所需人才。

The Company pays attention to providing employees with opportunities for life-long learning and cultivating the ability of employees to benefit for life. We attach great importance to talent training and provide employees with convenient and diverse learning and improvement opportunities to facilitate the Company's internal talent training and development and enhance the Company's core competitiveness by building a high-quality professional talent echelon. We also respect personalities, pay attention to employees' satisfaction and engagement, adapt and accommodate diverse values and behavioural patterns, so as to support and help employees develop their potential and cultivate and reserve talents for sustainable development.

4.2.1 成長發展

Growth and Development

現代牧業以「激活組織、成就牛人、價值倍增」為使命,為打造卓越的人才供應鏈,實現組織持續高績效均衡發展,全面實行幸福計劃與成長計劃為員工賦能,充分提供共贏成長的發展機會。

With the mission of "activating the organization, nourishing outstanding talents and multiplying value", Modern Dairy aims to create an excellent talent supply chain, so as to realize the sustained high-performance and balanced development of the organization, fully implement the happiness plan and growth plan to empower employees and fully provide development opportunities for win-win growth.

• 完善人才培養體系

Improving the Talent Training System

現代牧業致力於培養和發展優秀人才,建立科學的雙通道人才培養體系及敏捷的人才管理方法,持續發揮「牛人學院」的知識賦能作用,並推出「愛養牛牛人慧大講堂」及線上「值得」APP平台,全面賦能員工成長,成就牛人價值,實現卓越運營。

Modern Dairy is committed to cultivating and developing outstanding talents. Modern Dairy has established a scientific dual-channel talent training system and agile talent management methods, continued to give play to the knowledge empowerment of the "Niuren Academy (牛人學院)", and launched the "Aiyangniu Niurenhui Lecture Hall (愛養牛牛人慧大講堂)" and the online "Zhide (值得)" APP, to fully empower employees to grow, achieve the excellent value of talents and realize excellent operation.

現代牧業 Modern Dairy

- 完善領導力培養體系,圍繞勝任和後備兩條主線分別啓動「中堅力計劃」以及「騰飛計劃」,打造領軍型管理人才。針對勝任線,由內訓師團隊對勝任線的高、中層以及基層管理者搭建不同領導層級的課程體系,輸送全面的領導力培訓課程;針對後備線,依據培養對象不同分為孺牛計劃、青牛計劃、頭牛計劃、飛牛計劃,全面覆蓋管理儲備人才,增強管理梯隊建設。 Improve the leadership training system, and launch the "Backbone Plan (中堅力計劃)" and "Takeoff Plan (騰飛計劃)" around the two main lines of competence and reserve, to create leadership management talents. For the competency line, the internal trainer team builds a curriculum system at different leadership levels for the senior, middle-level and grass-roots managers of the competency line, and delivers comprehensive leadership training courses; and for the reserve line, the trainees will be assigned to the Runiu Plan (孺牛計劃), the Qingniu Plan (青牛計劃), the Touniu Plan (頭牛計劃) and the Feiniu Plan (飛牛計劃), which has fully covered the management reserve talents and will enhance the management team construction.
- 完善專業勝任力培養體系,集團學習發展中心及運營中心針對技術類、專業類、職能類開發專業課程,推進團隊全員、全過程、全方位培養體系建設。
 Improve the professional competence training system. The Group's learning and development center and operation center develop professional courses for technical, professional and functional positions to promote the construction of a full-staff, whole-process and all-round training system.
- 完善快速線人才培養體系,打造師帶徒導師隊伍,加速直升序列及新生序列賽道發展。針對直通序列,開設火箭班及菁英班,為高業績、高成熟度的人才進行理論與實踐相結合的全面培養,加快晉升通道;公司關注應屆生成長,打造管培生快速發展計劃,並針對新生序列,採取線上與線下相結合的培訓方式加速集團新鮮血液以及新任管理人員成長。
 Improve the talent training system of the fast-track line, and build a team of mentors and apprentices to accelerate the development of the straight-through sequence and the freshman sequence. For the straight-through sequence, Modern Dairy has set up the "rocket classes (火箭班)" and "elite classes (菁英班)" to comprehensively train high-performance and high-maturity talents by combining theory and practice to speed up the promotion channel. The Company pays attention

此外,為進一步培養集團各職能中心及牧場員工的項目管理思維,掌握項目管理方法,提升項目管理能力,更好地將理論和業務實踐結合,高效開展與落地項目,助力集團五年戰略目標的完成,公司搭建集團供應鏈項目管理人才梯隊。報告期內,共培養70名項目管理專業人士,並以「傳幫帶」的方式培養350名項目管理後備人才。

In addition, in order to further cultivate the project management thinking of the Group's functional centers and farm employees, help them master project management methods, improve project management capabilities, better combine theory and business practice and efficiently carry out and implement projects, thus helping the Group to achieve five-year strategic goals, the Company has built a management talent echelon for the Group's supply chain projects. During the reporting period, a total of 70 project management professionals were trained, and 350 project management reserve talents were trained through the manner of "deliver, help and teach (傳幫帶)".

案例 Case study ⚠️ДДДДД

關注應屆生成長 On the growth of freshmen

2021年11月9日上午,現代牧業集團第一期「管培生「高管面對面」交流會」通過線上視頻形式順利舉行。交流會採用直接對話高管的高效形式,幫助2020屆、2021屆46名管培生拓寬思維與職業生涯規劃,增強對現代牧業的認同感及信心。同時,就管培生的專業能力、管理能力、溝通表達能力、學習能力和職業生涯規劃進行了全面的考察,多維度客觀地評價了管培生的工作成果和發展潛力。

On the morning of 9 November 2021, the first phase of the "Face-to-face Meeting

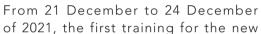


Between Management Trainees and Executives" of Modern Dairy Group was successfully held in the form of online video. The meeting adopted an efficient form of direct dialogue with executives, helping 46 management trainees in 2020 and 2021 to broaden their thinking and career planning and enhance their sense of identity and confidence in Modern Dairy. At the same time, Modern Dairy conducted a comprehensive inspection on the professional ability, management ability, communication and expression ability, learning ability and career planning of the management trainees, and evaluated the work achievements and development potential of the management trainees in a multi-dimensional and objective manner.

案例 Case study ↓↓↓↓↓↓↓↓

現代牧業新任經理人•第一期培訓 The first training for the new managers of Modern Dairy

2021年12月21日-24日,「現代牧業新任經理人●第一期培訓」正式開營,今年下半年晉升的37名牧場總經理、副總經理參加人政為期3天2夜的學習成長。新任經理多加人項目的階段課程內容重點圍繞管理者角色轉變、牧場人/財/物的管理、溝通時子全及自我廉潔建設主題進行設計。同時與開內外結合的方式對學員進行賦能,提升學員的綜合管理能力,幫助新任經理人們快速勝任新的管理崗位。





managers of Modern Dairy officially opened. The 37 general managers and deputy general managers who were promoted in the second half of the year participated in the three-day-and-two-night training. The phased courses of the new managers project focused on the transformation of the manager's role, the management of personnel/financials/materials of farms, communication, safety and self-integrity topics. It also employed the methods combining internal and external training to empower participants to improve their comprehensive management capabilities and help new managers quickly take on new management positions.

指標名稱 Indicator		單位 Unit	2021年 2021
培訓經費支出金額 Amount of training expenses		萬元人民幣 RMB0'000	117.22
培訓總場次 Total number of training sessions		次 Piece	2,904
培訓總人次 Total number of trainees		人次 Person-time	135,302
培訓總時數		小時	72,898
Total number of training hours 按培訓類別劃分的培訓時數	專業培訓	Hour 小時	44,981
Training hours by training category	Professional training 管理培訓	Hour 小時	8,034
	Management training 其他培訓	Hour 小時	19,883
	Other training	Hour	

指標名稱 Indicator		單位 Unit	2021年 2021
按性別劃分的受訓員工數量 及百分比	男性 Male	%	100%
Number and percentage of trainees by gender	女性 Female	%	100%
按僱員類別劃分的受訓員工數量 及百分比	初級員工 Junior employees	%	100%
Number and percentage of trainees by employee category	中級管理層 Mid-level management	%	100%
	高級管理層 Senior management	%	100%
按性別劃分的員工受訓平均時數 Average training hours of employee	男性員工 Male	小時/人 Hour/person	16.00
by gender	女性員工 Female	小時/人 Hour/person	15.30
按職級劃分的員工受訓平均時數 Average training hours of employee	初級員工 Junior employees	小時/人 Hour/person	15.30
by rank	中級管理層 Mid-level management	小時/人 Hour/person	21.30
	高級管理層 Senior management	小時/人 Hour/person	23.60
按性別劃分的員工受訓平均時數	24歲及以下員工	小時/人	18.50
Average training hours of employee by age	Employees aged 24 and below	Hour/person	20.20
	25歲-44歲員工 Employees aged 25 to 44	•	20.20
	45歲及以上員工 Employees aged 45 and above	小時/人 Hour/person	14.40
按文化背景類別劃分的 員工受訓平均時數	學士學位以下 Below the bachelor's	小時/人 Hour/person	15.38
Average training hours of employee by cultural background	degree 學士學位	小時/人	19.66
	Bachelor's degree 碩士及以上	Hour/person 小時/人	22.60
	Master's degree and above	Hour/person	

• 晉升管理

Promotion Management

公司為釋放個體和組織潛能,實現個體發展與組織效能的提升與供應,明確員工績效考核,加強人員流 失管理並完善薪酬激勵體系,全面打造職業雙通道發展、人才儲備晉升及任用等人才發展體系,提升公 司吸引、留任人才的能力。

In order to release the potential of individuals and organizations and realize the improvement and supply of individual development and organizational efficiency, the Company defines employee performance appraisal, strengthens personnel turnover management, and improves the compensation and incentive system. In this way, we will comprehensively build a talent development system such as career dual-channel development, talent reserve, promotion and appointment, and enhance the Company's ability to attract and retain talents.

晉升機制 Promotion mechanism

設置管理、技術、職能、生產四個系列,持續優化職級管理體系,明確八層、十七等級職位體系,充分體現各職能、各崗位的差異化價值,拓展員工在公司內的職業發展渠道,持續改進員工激勵和晉升機制。

Set up four series of management, technology, function and production, continuously optimize the rank management system, and clarify the eight-tier plus seventeen-level position system, to fully reflect the differentiated value of each function and position, expand the career development channels of employees and continuously improve the employees' incentive and promotion mechanism.

員工績效考核 Employees' performance appraisal

- 執行崗位績效考核機制,依據員工績效合同中規定的關鍵績效得分並參考行為表現,以年度為單位對個人進行績效等級評價。 Implement the job performance appraisal mechanism, and evaluate the employees' performance on an annual basis according to the key performance scores specified in the employee performance contract and the performance of employees.
- 對總部職能人員執行季度績效考核,對奶牛業務單位處室負責人 及以上人員執行月度績效考核,其他人員執行季度績效考核,對 新業務版塊人員執行月度績效考核。報告期內,有447名員工通 過由上級設立系統的可測量目標進行考核,其他員工實行組內排 名、多維績效評估方式進行考核。

Perform quarterly performance appraisals for functional staff at headquarters and monthly performance appraisals for heads of departments and above in the dairy cattle business units. Perform quarterly performance appraisals for other personnel and monthly performance appraisal for new business section personnel. During the reporting period, 447 employees were assessed through systematic and measurable targets set by their superiors, and other employees were assessed by means of ranking within the team and multi-dimensional performance evaluation.

員工薪酬激勵 Compensation and incentives of employees

以公平、公開、公正原則,否決原則以及價值觀與業績雙高原則,制定2021年度評優激勵方案,按照業績貢獻、代表性事跡、價值觀踐行三個維度,進行集團年度評優。評優獎項包含團隊獎與個人獎兩大類,其中團隊獎分為業務類與職能類;個人獎分為綜合業績類與專項技術類。充分調動員工工作積極性,不斷吸引、留任優秀人才與團隊。

Formulate the 2021 annual appraisal and incentive plan based on the principles of fairness, openness and impartiality, the principle of veto, and the principle of high values and performance, and conduct an annual evaluation within the Group according to the three dimensions, i.e. performance contribution, representative deeds and value practice. There are two categories of awards: team awards and individual awards. Team awards are divided into business categories and functional categories, while individual awards are divided into comprehensive performance categories and special technology categories. In this way, we have fully mobilized the enthusiasm of our employees and continuously attract and retain outstanding talents and teams.

關鍵人才儲備 建立關鍵崗位人才儲備庫,組織各單位有序開展人才儲備工作, 根據部門人員、崗位特性,設立崗位年齡、專業、工作經驗等任 Key talent pool 職資格要求; The Company has established a talent reserve pool for key positions, organized each unit to carry out talent reserve work in an ordinary manner, and established such job qualifications as age, profession, and work experience according to the characteristics of department members and positions; 建立關鍵崗位人才關懷機制,通過月度或季度的溝通會及時了 解、解決員工生活和工作上的困難,充分傳達企業發展信息,鼓 勵團隊精誠團結。 Establish the caring mechanism for talents in key positions. We will timely understand and solve the difficulty of employees in life and work through monthly or quarterly communication, fully convey corporate development information and encourage teamwork. 人員流失管理 實施人員流失績效考核,結合每月實際人員流動情況對相關的部 Staff turnover management 門負責人進行考核; Implement performance appraisal on staff turnover, and assess relevant department heads according to the actual monthly staff turnover; 要求各牧場對基層離職人員進行訪談,了解員工離職原因,並針 對發現的問題提出改善方案。 Conduct interviews with the resigned grass-roots employees to understand the reasons for resignation and propose improvement plans for the problems found.

案例 Case study

現代牧業集團牧場總經理崗位競聘會 Job fair for the post of general manager of farms of Modern Dairy Group

為盤活現代牧業人才資源,激發人才潛能,順利實施五年戰略規劃搭建人才供應鏈,2021年10月11日 - 12日,現代牧業集團牧場總經理競聘會隆重舉行,共有20名優秀候選人通過了前期篩選測評,進入到最終的現場角逐中。此次現場競聘環節由個人述能、問題答辯、評委點評提問三部分組成,最大程度地展現競聘人員的專業能力及解決問題的能力,並重點考察了競聘人員的個人能力展示及對目標崗位工作規劃能力。此次高規格的牧場總經理選拔對公司高潛人才的選拔、任用和後續力量的培養有着深遠影響。

In order to revitalize the talent resources of Modern Dairy, stimulate the potential of talents and successfully implement the five-year strategic plan to build a talent supply chain, Modern Dairy Group held a competition session for the position of general manager of farms from 11 October to 12 October of 2021. A total of 20 outstanding candidates passed the pre-screening evaluation and entered the final on-site competition. The on-site competition session consisted of three parts: personal description, question answering, and judges' comments and questions, which showed the professional ability and problem-solving ability of the candidates to the greatest extent, and focused on the personal ability display of the candidates and their planning ability of the position. This high-profile selection of the general manager of farms has a far-reaching impact on the selection and appointment of the Company's high-potential talents and subsequent cultivation of talents.

案例 Case study 中秋安「薪」計劃 Salary adjustment in the Mid-Autumn Festival

2021年9月,現代牧業正式啓動2021調薪計劃。此次調薪基於全面實施以崗位價值為基礎、結合個人能力與績效結果付薪的多序列薪酬體系,旨在建立具有外部競爭力兼具內部公平性的全新薪酬分配機制,持續加大對優秀人才的激勵,鼓勵價值創造、多勞多得。公司堅持薪酬分配向貢獻者傾斜的原則,整體調薪率≥10%,其中業務一線調薪總額佔總調薪額度的80%以上。此次行動提高了公司保留和激勵人才的能力,提升了員工收入水平、幸福感及敬業度,從而助力全面落地現代牧業五年戰略規劃。

In September 2021, Modern Dairy officially launched the 2021 salary adjustment plan. Such salary adjustment was based on the full implementation of a multi-sequence salary system according to job value and combining personal ability and performance results, with the purpose to establish a new salary and distribution mechanism with external competitiveness and internal fairness, continue to increase incentives for outstanding talents and encourage value creation and the principle of "more pay for more work". The Company adheres to the principle of tilting the salary and distribution to contributors, and the overall salary adjustment rate was higher than 10%, of which, the total salary adjustment of the front-line business employees accounted for more than 80% of the total salary adjustment amount. This action has enhanced the Company's ability to retain and motivate talents, and improved the income level, happiness and engagement of employees, thus helping to fully implement the five-year strategic plan of Modern Dairy.

指標 Indicator		單位 Unit	2021年度 2021
員工年度流失率		%	1.60%
Annual turnover rate			
按性別劃分的員工年度流失率	男性員工流失率	%	1.38%
Annual turnover rate by gender	Turnover rate of male		
	employees		
	女性員工流失率	%	2.04%
	Turnover rate of female		
	employees		
按年齡劃分的員工年度流失率	30歲及以下員工流失率	%	2.85%
Annual turnover rate by age	Turnover rate of		
	employees aged 30		
	and below		
	31歲-50歲員工流失率	%	1.55%
	Turnover rate of		
	employees aged		
	31 to 50		
	51歲及以上員工流失率	%	0.00%
	Turnover rate of		
	employees aged 51		
	and above		

指標 Indicator		單位 Unit	2021年度 2021
按地區劃分的員工年度流失率	察北大區	%	1.90%
Annual turnover rate by region	Chabei Region	0/	
	東北大區 Northeast Region	%	1.86%
	華東大區	%	1.12%
	Eastern China Region 華中大區	%	1.37%
	Central China Region 蒙雲川大區	%	1.65%
	Mengyunchuan Region		1.6676
	塞北大區 Saibei Region	%	2.07%
	西北地區	%	1.70%
按資歷劃分的員工年度流失率	Northwest Region 初級員工	%	1.80%
Annual turnover rate by seniority	Junior employees 中級管理層	%	0.429/
	中級官埕層 Mid-level management	70	0.42%
	高級管理層 Senior management	%	0.00%
	Jenior management		

4.2.2 人文關懷

Humanistic Care

公司關注並鼓勵員工工作與生活平衡,關心員工的身心健康,進一步升級與完善福利體系,提供一系列 生活與娛樂配套設施,積極組織員工開展活動,提高員工工作熱情。同時,我們充分保證與員工之間的 溝通,確保將人文關懷落到實處,提升員工的歸屬感與幸福感。

The Company pays attention to and encourages employees to balance work and life, cares about the physical and mental health of employees and further upgrades and improves the welfare system. The Company provides a series of living and entertainment facilities, and actively organizes employees to carry out activities to improve their enthusiasm for work. In addition, we fully guarantee communication with employees to ensure the implementation of humanistic care and enhance the sense of belonging and happiness of employees.

• 秉承民主管理

Democratic Management

現代牧業積極開展民主化管理,充分保障員工的人權、言論自由,並根據《工會工作條例》完善民主管理建設,確保每位員工都有選擇加入工會的自主權,根據國家工會法相關規定,目前工會員工代表佔比15%,我們將持續提高員工代表比例,全方位維護全體員工的合法權益。圍繞公司經營中的重大事項、重大決策、幹部任免、涉及職工切身利益的問題及黨風廉政建設密切相關的問題進行信息公開,使廠務公開工作落到實處。同時,我們定期開展員工滿意度調查了解員工意願,通過民主生活會、群眾座談會、問卷調研廣泛徵集員工意見,並通過發佈佈告欄等方式推進集體協商談判、職代會、勞動爭議協調委員會等方式幫助員工建立暢通的溝通渠道,切實解決問題。公司通過工會、員工等利益相關方積極協商建立匿名舉報申訴機制,設有員工熱線、意見箱等多種匿名舉報申訴途徑,當遇到侵犯人權、不公平對待、歧視、騷擾、虐待、不人道待遇、限制自由、強迫勞動、僱傭童工等行為發生時,鼓勵個人舉報侵犯員工權益的行為,公司將通過匿名保護、舉報平台權限設置、調查內容脱敏保密等方式切實保護舉報人不受到威脅、報復。當舉報申訴後台收到舉報信息後,工會將在保密情況下協調內部相關部門進行全面調查與核實,對於侵犯員工權益的事實行為,將依據規定積極採取處分、開除等處理行動,必要時移送司法機關,切實保障員工權益免受侵犯。報告期內,公司未出現侵犯上述員工權益的行為。

Modern Dairy actively carries out democratic management, fully protects employees' human rights and freedom of speech, and improves the democratic management construction in accordance with the Regulations of Labour Union to ensure that every employee has the autonomy to join the labour union. According to the relevant provisions of the National Labour Union Law, our current proportion of employee representatives in the labor union is 15%. We will continue to increase the proportion of employee representatives to comprehensively protect the legitimate rights and interests of all employees. We disclose information on major events, major decisions, appointment and dismissal of cadres, issues involving the vital interests of employees in the Company's operations, as well as issues closely related to the construction of a clean and honest Party to ensure the public disclosure of company affairs. At the same time, we regularly conduct employee satisfaction surveys to understand employees' wishes, and extensively solicit employees' opinions through democratic life meetings, mass forums and questionnaire surveys. We also help employees to establish smooth communication channels through promoting collective negotiation via bulletin boards, workers' congresses, labour dispute coordination committees, etc. to effectively solve problems. The Company actively negotiates and establishes an anonymous reporting and grievance mechanism through labour unions, employees and other stakeholders, and has set up various anonymous reporting and grievance channels such as employee hotlines and suggestion boxes. We encourage employees who experience human rights violations, unfair treatment, discrimination, harassment, abuse, inhuman treatment, restriction of freedom, forced labour and child labour to report violations of employees' rights. The Company will effectively protect whistleblowers from threats and retaliation through anonymous protection, permission settings of the reporting platform and desensitization and confidentiality of investigation content. When the whistle-blowing and appeal backend receives the whistle-blowing information, the labour union will coordinate with the relevant internal departments to conduct a comprehensive investigation and verification under the circumstance of confidentiality. For acts that violate the rights and interests of employees, we will actively take action such as punishment and dismissal in accordance with regulations, and will transfer them to judicial organs if necessary, so as to effectively protect the rights and interests of employees from infringing. During the reporting period, the Company did not violate the rights and interests of employees as mentioned above.

公司的民主管理理念不斷強化了職工的主人翁意識,全面提高了企業民主化管理水平。報告期內,公司針對員工對於工作環境、生活關懷等各方面的滿意情況開展了全方位的員工滿意度調查。下發的員工滿意度問卷結果顯示,綜合員工滿意度達94%,同時我們開通員工建議渠道,全面傾聽員工心聲,進一步優化民主管理,持續提升員工滿意度。

The concept of democratic management of the Company continuously enhances the sense of ownership of our employees and has comprehensively improved the level of democratic management of the enterprise. During the reporting period, the Company carried out an all-round employee satisfaction survey on employees' satisfaction with the work environment, life care and other aspects. The results of the employee satisfaction questionnaire issued showed that the overall employee satisfaction reached 94%. We have also opened an employee suggestion channel to fully listen to the voices of employees, further optimize democratic management and continuously improve employee satisfaction.

案例 Case study

2021年第四屆職工代表大會 The 4th Workers' Congress in 2021

2021年,公司召開第四屆職工代表大會,來自各事業部及各職能部門員工代表參加了會議,活動採取現場和線上參與的形式,會上員工代表就民主管理事宜以及員工訴求進行發言及民主決策,並保證全面落實後續工作。

In 2021, the Company held the 4th Workers' Congress. Representatives of employees from various business departments and functional departments participated in the conference. The conference was held on-site and online. At



the conference, employee representatives made speeches and decisions on democratic management matters and employees' demands, and promised to fully implement follow-up work.

• 升級員工福利

Improving Employee Benefits

為提高員工幸福感與滿意度,公司明確員工在基礎保障、健康、節日慰問、生活津貼方面享有的福利,形成了多維度、多渠道、普惠性與適度差異性相結合的福利關愛體系。

In order to improve the happiness and satisfaction of employees, the Company defines the benefits that employees can enjoy in basic security, health, festive greetings and living allowances, thus forming a multi-dimensional, multi-channel, inclusive and moderately differentiated welfare care system.

基礎保障類福利 Basic security benefits	- 公司依照國家及地方人社局規定為員工辦理五險一金,保障員工基本權益,此外,還為員工提供了大額醫療保險、女工衛生費、季度勞保福利、防暑降溫福利等。 The Company contributes to five major insurances and housing provident funds for employees in accordance with the regulations of the state and local human resources and social security bureaus to protect the basic rights and interests of employees. The Company also provides employees with large medical insurances, health expenses for female workers, quarterly labour insurance benefits and heatstroke prevention and cooling benefits.
員工健康類福利 Health benefits	- 公司重視每位員工的健康保障,為全體員工提供補充商業保險。同時,公司不斷提升核心福利,落地內部健康計劃,為全體員工提供健康體檢,並將體檢標準提高至500元/人。此外,公司關注員工家人的健康,將福利惠及家庭,提供員工子女補充商業保險。 The Company attaches great importance to the health of each employee and purchases supplementary commercial insurances for all employees. The Company has continuously improved core benefits, implemented an internal health plan, provided health check-ups for all employees, and raised the check-up standard to RMB500 per person. In addition, the Company pays attention to the health of employees' families, extend benefits to employees' families, and purchases supplementary commercial insurance for employees' children.
節日慰問類福利 Festive greetings	- 公司員工提供節日慰問福利、生日禮金、婚禮賀金等,多方位提高員工幸福感與企業文化認同感。 The Company provides employees with festive greetings and benefits, birthday gifts, wedding gifts, etc., to improve employees' happiness and corporate cultural identity in many ways.
生活津貼類福利 Living allowance	- 公司為員工提供包括工作餐補、工作用車補貼、電話補貼、異地輪崗津貼、帶薪年假補貼、牧場一線雙職工住房補貼等在內的一系列津貼福利,為員工提供多重福利與保障,提升企業吸引與留任人才的能力。 The Company provides employees with a series of allowances and benefits including working meal allowance, vehicle allowance, telephone allowance, off-site rotation allowance, paid annual leave allowance and housing allowance for front-line farm workers. The Company provides employees with such multiple benefits and guarantees, which has enhanced the Company's ability to attract and retain talents.

• 增進員工關愛

Employee Care

我們鼓勵員工工作與生活平衡,不斷豐富員工業餘生活與精神世界。公司組織舉辦趣味競賽,體育文娛等一系列主題的活動,以增強員工凝聚力與積極性。

We encourage employees to balance work and life, and constantly enrich their spare time and spiritual world. The Company organized a series of themed activities such as fun competitions, sports and entertainment events to enhance the cohesion and enthusiasm of employees.

案例 Case study ♪☆☆☆☆☆ 現代牧業第一屆勞動技能競賽
The First Session of Labor Skills Competitions of Modern Dairy

2021年,公司在保障員工身體健康安全的基礎上舉辦了第一節勞動技能競賽,本區勞動技能競賽、「強技能、提效率、降成本、促效益」為目標,以賽代訓為形式行團隊展示、知識競賽、個人技能比大團隊展示、知識競賽不僅展示了進展,以數實的技術功底、對結果的高標準追手人數實的財務。此次,更完美詮釋了黃出節的嚴格把控,更完美詮釋了黃本人較真、堅持、不服輸的精神,極大鼓舞了員工「爭當現代牛人」的決心。





on the basis of ensuring the health and safety of employees. With the goal of "strengthening skills, improving efficiency, reducing costs and promoting benefits", this session of labour skills competitions took the form of competition instead of training, and consisted of three sections: team demonstration, knowledge competition, and individual skills competition. These competitions not only demonstrated the solid technical foundation of our employees and their pursuit of high-standard results and the strict control of details, but also perfectly exemplified their spirits of being ambitious, persevering and unyielding, and greatly inspired the employees' determination to "become a cow keeper of Modern Dairy".

案例 Case study 蒙牛集團第八屆運動會火炬傳遞儀式現代牧業站活動暨現代牧業拔河比賽
The Torch Relay Ceremony of the Eighth Games of Mengniu Group in Modern Dairy
and the Tug-of-war Competition of Modern Dairy



On 10 June 2021, the Torch Relay Ceremony of the Eighth Games of Mengniu Group in Modern Dairy and the Tug-of-war Competition of Modern Dairy were successfully held at the headquarters of the Group. The torch relay activity started from the Mengniu Beijing factory and arrived at the headquarters of Modern Dairy after 14 stops. 40 outstanding representatives from the headquarters of Modern Dairy Group and Ma'anshan Farm, as escort ambassadors, witnessed the torch of the Games passing from hand to hand, and felt the endless power of Modern Dairy. With laughter and passion, we fully interpreted the spirit of cow keepers. The



tug-of-war competition after the torch relay ceremony was even more explosive. The participating employees worked hard together to complete the competition. These activities demonstrated the spirit of sports and greatly improved the cohesion of employees.

4.3 重執行的「養牛人」 Pragmatic "Cow Keeper"

4.3.1 鄉村振興,促進就業

Rural Revitalization and Employment Promotion

作為國內重要的養殖企業,現代牧業肩負着引導養殖業回饋社會、促進地區經濟發展的重要社會責任。 帶動鄉村人口就業,充分發揮農業產品供給功能,加快農業生態化與現代化建設,是鄉村振興的重要方面。現代牧業通過積極帶動週邊貧困地區人口就業、農業綠色循環經濟合作等方式支持農業農村發展, 幫助做大做強地區特色產業,以推動鄉村振興,促進共同富裕。

As an important domestic breeding enterprise, Modern Dairy shoulders the important social responsibility of guiding the breeding industry to give back to society and promoting regional economic development. Driving the employment of the rural population, giving full play to the supply function of agricultural products and accelerating the construction of agricultural ecology and modernization are important contents of rural revitalization. Modern Dairy supports the development of agriculture and rural areas by actively promoting employment in the surrounding poverty-stricken areas and agricultural cooperation in the green and circular economy, and helps to develop characteristic industries in the areas, so as to promote rural revitalization and common prosperity.

扶貧助困

Poverty Alleviation

- 堅持對牧場當地或附近縣(村)以實物或現金的形式進行捐助,同時積極出資協助政府修建健身廣場,清理河道,鋪設鄉道,為助力地區發展貢獻企業力量。
 Donate in kind or in cash to counties (villages) in or near the farms, and actively contribute to the
 - government to build fitness squares, clean up rivers, and lay township roads, so as to contribute our strength to the development in the region.
- 通過無償提供技術支持服務、捐贈飼料與牛隻等措施,助力工作的開展。
 Support poverty alleviation by providing free technical support services and donating feed and cattle.

助力社區就業

Facilitating Community Employment

- 牧場選址多為鄉村地區,公司採取本地化用工政策,積極吸收當地員工,拓寬當地人民的就業渠道,並優先為當地貧困群體開放部分崗位,積極幫助貧困群眾解決就業困難,全面帶動社區就業發展;
 - Most of our farms are located in rural areas. The Company adopts a localized employment policy, actively recruits local employees, expands employment channels for local people, and gives priority to opening some jobs for local poor groups, so as to actively help poor people solve their employment difficulties and comprehensively promote the development of community employment;
- 牧場輻射帶動牧場週邊農戶從事飼草種植,積極促進社區人口再就業,並幫助農戶提高收入水平。
 We encourage farmers around the farms to engage in forage planting to actively promote the re-employment of the community population and help farmers increase their income.

助力社區經濟發展

Helping Economic Development in Communities

- 現代牧業推行「企業+基地+農戶」的飼草產業化經營模式,積極佈局週邊地區飼草料種植業發展,並制定大規模飼草料採購計劃,各牧場與週邊地區及農商戶進行深度合作,實現企業與社區共同發展的雙贏局面,全面推動地區特色產業發展,助力鄉村振興。目前,企業訂單飼草種植面積107萬畝,輻射帶動牧場週邊6萬餘農戶從事飼草種植,年收入達6.89億元。
 - Modern Dairy implements the forage industrialization business model of "enterprise + base + farmers", actively deploys the development of forage planting in surrounding areas, and formulates large-scale forage procurement plans. Our farms have in-depth cooperation with surrounding areas and farmers to achieve a win-win situation for the common development of enterprises and communities, comprehensively promote the development of regional characteristic industries and thus help rural revitalization. At present, the Company's forage orders cover a planting area of 1.07 million mu, and the radiation effect has driven more than 60,000 farmers around the farms to engage in forage planting, with an annual income of RMB689 million.





4.3.2 投身公益,共創美好

Dedicated to Public Welfare, Creating a Better Future

企業的發展離不開社會的支持。現代牧業追求企業與社會的共生共榮,熱心參與公益事業。在保證穩健運營的同時,通過積極參與和支持公益活動、志願活動,履行社會責任,回饋社會。報告期內,公司對外捐贈金額約35萬元,物資捐贈價值約5萬元。

The development of enterprises is inseparable from the support of society. Modern Dairy pursues the symbiosis and prosperity of the enterprise and the society, and enthusiastically participates in public welfare undertakings. While ensuring stable operations, we fulfill our social responsibilities and give back to society by actively participating in and supporting public welfare activities and voluntary activities. During the reporting period, the Company donated approximately RMB0.35 million in cash, and its material donations amounted to approximately RMB50,000.

案例 Case study ᡗᠠᠬᠠᠬᠠᠬ 「衣」份關懷,「物」暖人心 Clothes donating

為了弘揚扶貧濟困、團結友善、和諧健康、 互幫互助、奉獻愛心的博愛精神,倡導助人 為樂、無私奉獻的高尚品德。在冬日來臨贈 際,馬鞍山牧場帶領員工開展了「暖冬捐贈」 志願募捐活動。本次活動主要以捐贈冬季山 物的形式進行,所得物資均捐贈給青海 的貧困兒童,為孩子們能過上一個溫暖冬 獻出自己的一片愛心,為和諧社會貢獻一份 力量。

In order to carry forward the fraternity spirit of helping the poor, solidarity and friendliness, harmony and health, mutual assistance and devotion, and advocate



the noble character of helping others and selfless dedication, Ma'anshan Farm led its employees to carry out voluntary fundraising activities when the winter approached. This activity was mainly about donating winter clothes. All the materials collected have been donated to impoverished children in the mountainous areas of Qinghai, giving their love for the children to live a warm winter and contributing to a harmonious society.

案例 Case study

「關愛兒童暖人心」活動 Caring for children

少年兒童是祖國的未來與希望,留守兒童更需要得到社會各界的關注與愛護。2021年6月1日,現代牧業汶上牧場開展「關愛兒童暖人心」慰問活動,為郭倉鎮的留守兒童送去學習用品與現代牧業品牌系列奶類產品,傳達了現代牧業熱心公益、關愛兒童的初心。Children are the future and hope of our motherland, and left-behind children need more attention and love from all walks of life. On 1 June 2021, Wenshang Farm of Modern Dairy launched the "Caring for Children and Warming Hearts" activity



to send school supplies and Modern Dairy brand series of milk products to left-behind children in Guocang Town, reflecting the original intention of Modern Dairy to be enthusiastic about public welfare and caring for children.

案例 Case study ♪┃.┃.┃.┃.┃.┃.

「春風綠牧業●牛人綻芳華」植樹節活動 Chinese Arbor Day theme event

2021年2月,現代牧業啓動了以「春風綠牧業●牛人綻芳華」為主題的植樹活動。集團旗下牧場紛紛響應號召,自主開展創綠護綠、義務植樹活動。2021年3月12日上午,在集團工會的帶領下,總部各中心人員在環湖開展植樹志願活動,活動廣泛傳播了綠色環保的發展理念。

In February 2021, Modern Dairy launched an Arbor Day theme event. The Group's farms responded to the call and actively carried out greening and voluntary tree planting activities. On the morning of 12 March 2021,



under the leadership of the labour union of the Group, staff from various centers of the headquarters carried out tree planting volunteer activities in Huanhu, which had widely spread the concept of green development.

展望 Outlook

2022年,現代牧業將堅持高起點、高定位、高標準,延續純、真、鮮、活的生產理念,讓消費者享受優質牛奶。我們夯實龍頭地位,致力於做全球規模最大、產業鏈最全、業務能力最強的牧業集團公司。於此同時,我們堅持可持續發展戰略,響應政策號召,建立健全可持續管理體系,提升服務質量,和諧共贏,主動承擔社會責任,為行業樹立榜樣。

In 2022, Modern Dairy will adhere to the principles of high starting point, high positioning and high standards, and continue the production concept of purity, truth, freshness and liveness, so that consumers can enjoy high-quality milk. We will consolidate our leading position and devote ourselves to becoming the largest dairy farming group company in the world with the most complete industrial chain and the strongest business capability. At the same time, we will adhere to the sustainable development strategy and respond to policy calls by establishing and improving sustainable management systems, and will improve service quality to achieve harmony and win-win results, take the initiative to assume social responsibilities and set an example for the industry.

綠色運營,深化可持續發展

Green operation and deepening sustainable development

我們將不斷促進經營生產與生態環境建設相互融合,繼續深入探索綠色經營未來創造的機遇,堅持發展「牛糞發酵 - 優質沼肥 - 青貯施肥 - 回購青貯」的生態農業循環模式,強化開展「雙碳戰略項目」,持續監控碳排放數據,從能源使用、節能技改、綠化建設等方面優化管理,實現綠色循環經濟。

We will continue to promote the integration of business production and ecological environment construction, and keep exploring the opportunities created by green management in the future. We will also insist on the development of the eco-agricultural economy featuring the cycle of "Cow Manure Fermentation – Quality Manure Fertilizer – Silage Fertilization – Silage Repurchase", strengthen the development of the dual-carbon strategic project, and continuously monitor carbon emission data, so as to optimize management in terms of energy use, energy-saving technological transformation and greening and achieve a green circular economy.



福利養殖,源頭保障品質

Welfare-based breeding and quality assurance at the source

我們承諾「成為高品質原奶供應商及優質乳加工製造者」,繼續開拓創新,有效利用一、二、三產業有機融合的優勢,不斷提升原奶品質,滿足消費者的需求;改良牛群基因,擴大資產胚胎移植項目規模,培育優良品種;引進世界先進的養殖方式,加速實現科學餵養,使養殖規模化、自動化,管理先進;深耕上游,建立陽光健康的合作關係,發展可持續戰略合作,有效控制供應鏈風險。

We undertake to "become a high-quality raw milk supplier and milk processing manufacturer", and will continue to develop and innovate and effectively utilize the advantages of organic integration of primary, secondary and tertiary industries to continuously improve the quality of raw milk and meet the needs of consumers. We will improve the genetics of the herd and expand the scale of the asset embryo transfer program to cultivate better breeds. We will introduce the world's advanced breeding methods and accelerate the realization of scientific feeding, so as to make our breeding business scale up, realize automatic operation and have advanced management measures. We will deeply engage in upstream industries, establish transparent and healthy cooperative relations and develop sustainable strategic cooperation to effectively control supply chain risks.

回饋社會,共建美好社區

Give back to society and build a better community

我們堅持平等僱傭,保障員工合法權益,確保安全生產和員工職業健康安全,關心關愛員工。持續支持運營 所在地社區發展,增進當地民生福祉,持續開展公益活動,助力地方經濟發展。

We will insist on equal employment, protect the legitimate rights and interests of employees, ensure safe production and occupational health and safety of employees and care for employees. We will continue to support the development of communities where we operate to improve the well-being of local people, and also continuously carry out public welfare activities to help local economic development.

未來,現代牧業定將蓄勢而為,加快全產業鏈發展,全面落地「五年領跑計劃」,實現牛、奶雙翻番,履行做大、做強、做優民族奶業的責任與使命,為助力鄉村振興貢獻牛人力量。

In the future, Modern Dairy will be poised to accelerate the development of the entire industry chain, fully implement the "Five-Year Lead Plan" and double the herd size and milk production, and will fulfill the responsibility and mission of making the national dairy industry bigger, stronger and better and contribute to the rural revitalization.

附錄:ESG指標索引

Appendix: ESG Indicators Index

序號 No.	指標描述 Description	披露位置 Disclosure
A1 排放物 Emissions	一般披露 General Disclosure	P56-P62
	有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害 廢棄物的產生等的: Information on:	
	(a) 政策;及 the policies; and	
	(b) 遵守對發行人有重大影響的相關法律及規例的資料。 compliance with relevant laws and regulations that have a significant impact on the issuer	
	relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	
	註: 廢氣排放包括氮氧化物、硫氧化物及其他受國家法律及規例規管的污染物。溫室氣體包括二氧化碳、甲烷、氧化亞氮、氫氟碳化合物、全氟化碳及六氟化硫。 Note: Air emissions include NOx, SOx, and other pollutants regulated under national laws and regulations. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.	
	有害廢棄物指國家規例所界定者。 Hazardous wastes are those defined by national regulations.	

序號 No.	指標描述 Description	披露位置 Disclosure
	A1.1 排放物種類及相關排放數據。 The types of emissions and respective emissions data.	P62-P63
	A1.2 直接(範圍1)及間接能源(範圍2)溫室氣體總排放量(以噸計算)及(如適用)密度(如以每產量單位、每項設施計算)。 Greenhouse gas emissions in total (in tonnes) from direct (Scope I) and indirect (Scope II) energy and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P62-P63
	A1.3 所產生有害廢棄物總量(以重量或體積計算)及(如適用) 密度(如以每產量單位、每項設施計算、每位正式僱 員)。 Total hazardous waste produced (by weight or volume) and, where appropriate, intensity (e.g. per unit of production volume, per facility or per regular employee).	P62-P63
	A1.4 所產生無害廢棄物總量(以重量或體積計算)及(如適用) 密度(如以每產量單位、每項設施計算、每位正式僱 員)。 Total non-hazardous waste produced (by weight or volume) and, where appropriate, intensity (e.g. per unit of production volume, per facility or per regular employee).	P60
	A1.5 描述所訂立的排放量目標及為達到這些目標所採取的步驟。 Description of emissions targets set and steps taken to achieve them.	P56-P62
	A1.6 描述處理有害及無害廢棄物的方法,及描述所訂立的減廢目標及為達到這些目標所採取的步驟。 Description of how hazardous and non-hazardous wastes are handled, and description of waste reduction targets set and steps taken to achieve them.	P56, P60-P61

序號 No.	指標描述 Description	披露位置 Disclosure
A2 資源使用 Use of Resources	一般披露 General Disclosure 有效使用資源(包括能源、水及其他原材料)的政策。 Policies on the efficient use of resources, including energy, water and other raw materials. 註: 資源可用於生產、儲存、運輸、樓宇、電子設備等。 Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.	P50-P55
	A2.1 按類型劃分的直接及/或間接能源(如電、氣或油)總耗量(以每千秒千瓦時計算)及密度(如以每產量單位、每項設施計算)。 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	P55
	A2.2 總耗水量及密度(如以每產量單位、每項設施計算)。 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P55
	A2.3 描述所訂立的能源使用效益目標以及為達到這些目標所採取的步驟。 Description of energy efficiency goals set and steps taken to achieve them.	P51-P54
	A2.4 描述求取適用水源上可有任何問題,以及訂立的用水效益目標及為達到這些目標所採取的步驟。 Description of whether there is any issue in sourcing water that is fit for purpose, and water efficiency targets set and steps taken to achieve them.	P51, P54
	A2.5 製成品所用包裝材料的總量(以噸計算)及(如適用)每生產單位佔量。 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	不適用 N/A

序號 No.	指標描述 Description	披露位置 Disclosure
A3 環境及天然資源 Environment and Natural Resources	一般披露 General Disclosure 減低發行人對環境及天然資源造成重大影響的政策。 Policies on minimising the issuer's significant impact on the environment and natural resources.	P51-P54
	A3.1 描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P51-P54
A4 氣候變化 Climate Change	一般披露 General Disclosure 識別及應對已經及可能會對發行人產生影響的重大氣候相關 事宜的政策。 Policies on identification and mitigation of significant climate- related issues which have impacted, and those which may impact, the issuer.	P43-P48
	A4.1 描述已經及可能會對發行人產生影響的重大氣候相關事宜,及應對的行動。 Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	P43-P48

序號 No.	指標描述 Description	披露位置 Disclosure
B1 僱傭 Employment	一般披露 General Disclosure	P96, P99-P100
	有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的: Information on:	
	(a) 政策;及 the policies; and	
	(b) 遵守對發行人有重大影響的相關法律及規例的資料。 compliance with relevant laws and regulations that have a significant impact on the issuer	
	relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	
	B1.1 按性別、僱傭類型(如全職或兼職)、年齡組別及地區劃分的僱員總數。 Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	P97-P98
	B1.2 按性別、年齡組別及地區劃分的僱員流失比率。 Employee turnover rate by gender, age group and geographical region.	P117-P118

序號 No.	指標描述 Description	披露位置 Disclosure
B2 健康與安全 Health and Safety	一般披露 General Disclosure	P100-P107
	有關提供安全工作環境及保護僱員避免職業性危害的: Information on: (a) 政策;SS及 the policies; and	
	(b) 遵守對發行人有重大影響的相關法律及規例的資料。 compliance with relevant laws and regulations that have a significant impact on the issuer	
	relating to providing a safe working environment and protecting employees from occupational hazards.	
	B2.1 過去三年(包括匯報年度)每年因工亡故的人數及比率。 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	P107
	B2.2 因工傷損失工作日數。 Lost days due to work injury.	P107
	B2.3 描述所採納的職業健康與安全措施,以及相關執行及監察方法。 Description of occupational health and safety measures adopted, and how they are implemented and monitored.	P100-P107

序號 No.	指標描述 Description	披露位置 Disclosure
B3 發展及培訓 Development and Training	一般披露 General Disclosure 有關提升僱員履行工作職責的知識及技能的政策。描述培訓活動。 Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. 註: 培訓指職業培訓,可包括由僱主付費的內外部課程。 Note: Training refers to vocational training. It may include internal and external courses paid by the employer.	P108-P111, P112-P116
	B3.1 按性別及僱員類別(如高級管理層、中級管理層等)劃分的受訓僱員百分比。 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	P111-P112
	B3.2 按性別及僱員類別劃分,每名僱員完成受訓的平均時數。 The average training hours completed per employee by gender and employee category.	P111-P112

序號 No.	指標描述 Description	披露位置 Disclosure
B4 勞工準則 Labour Standards	一般披露 General Disclosure	P99
	有關防止童工或強制勞工的: Information on:	
	(a) 政策;及 the policies; and	
	(b) 遵守對發行人有重大影響的相關法律及規例的資料。 compliance with relevant laws and regulations that have a significant impact on the issuer	
	relating to preventing child and forced labour.	
	B4.1 描述檢討招聘慣例的措施以避免童工及強制勞工。 Description of measures to review employment practices to avoid child and forced labour.	P99
	B4.2 描述在發現違規情況時消除有關情況所採取的步驟。 Description of steps taken to eliminate such practices when discovered.	P99

序號 No.	指標描述 Description	披露位置 Disclosure
B5 供應鏈管理 Supply Chain Management	一般披露 General Disclosure	P89-P92
	管理供應鏈的環境及社會風險政策。 Policies on managing environmental and social risks of the supply chain.	
	B5.1 按地區劃分的供應商數目。 Number of suppliers by geographical region.	P93-P94
	B5.2 描述有關聘用供貨商的慣例,向其執行有關慣例的供應商數目、以及有關慣例的執行及監察方法。 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	P89-P92, P94
	B5.3 描述有關識別供應鏈每個環節的環境及社會風險的慣例,以及相關執行及監察方法。 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	P91-P92, P94
	B 5.4描述在揀選供貨商時促使多用環保產品及服務的慣例, 以及相關執行及監察方法。 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	P90-P92, P94

序號 No.	指標描述 Description	披露位置 Disclosure
B6 產品責任 Product Responsibility	一般披露 General Disclosure	P81-P87
	有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的: Information on:	
	(a) 政策;及 the policies; and	
	(b) 遵守對發行人有重大影響的相關法律及規例的資料。 compliance with relevant laws and regulations that have a significant impact on the issuer	
	relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	
	B6.1 已售或已運送產品總數中因安全與健康理由而須回收的百分比。 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	P81
	B6.2 接獲關於產品及服務的投訴數目以及應對方法。 Number of products and service-related complaints received and how they are dealt with.	P81, P85, P88
	B6.3 描述與維護及保障知識產權有關的慣例。 Description of practices relating to observing and protecting intellectual property rights.	P89
	B6.4 描述質量檢定過程及產品回收程序。 Description of quality assurance process and recall procedures.	P83-P88
	B6.5 描述消費資料保障及隱私政策,以及相關執行及監察方法。 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	P88

序號 No.	指標描述 Description	披露位置 Disclosure
B7 反貪污 Anti-corruption	一般披露 General Disclosure	P24-P26
	有關防止賄賂、勒索、欺詐及洗黑錢的: Information on:	
	(a) 政策;及 the policies; and	
	(b) 遵守對發行人有重大影響的相關法律及規例的資料。 compliance with relevant laws and regulations that have a significant impact on the issuer	
	relating to bribery, extortion, fraud and money laundering.	
	B7.1 於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果。 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	P24-P26
	B7.2 描述防範措施及舉報程序,以及相關執行及監察方法 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	P24-P26
	B7.3 描述向董事及員工提供的反貪污培訓。 Description of anti-corruption training provided to directors and staff.	P25

序號 No.		指標描述 Description	披露位置 Disclosure
B8 社區投資 Community Investment	一般披露 General Disclosure 有關以社區參與來了解營運所在社區需要和確保其業務活動 會考慮社區利益的政策。 Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	P124-P127	
	B8.1 專注貢獻範疇(如教育、環境事宜、勞工需求、健康、文化、體育)。 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	P124-P127	
	B8.2 在專注範疇所動用資源(如金錢或時間)。 Resources contributed (e.g. money or time) to the focus area.	P124-P127	