

Shijiazhuang Yongsheng Dairy Co., Ltd. (Yongsheng Plant) Company Profile



Address: Shijiazhuang Yongsheng Dairy Co., Ltd. (Yongsheng Plant)

TPM Manager: Liu Wenbin

TEL: 86+18097583360

E-mail:jlbystry2022@163.com

Contents

Shijiazhuang Yongsheng Dairy Co., Ltd. (Yongsheng Plant)	1
Chapter 1: Company profile	3
1.1 About Junlebao Group	3
1.2 About Yongsheng Plant	5
1.2.1 Profile	5
1.2.2 Production Process	6
1.2.3 Equipment and Products	7
1.2.4 Food Safety Management	8
1.2.5 Organizational Structure	9
Chapter 2: TPM Organization and Activities	10
2.1 TPM milestones	10
2.2 Focus of Activities	10
2.2 TPM milestones	11
Chapter 3: Achievements	12
3.1 Tangible achievements: Improved performance	12
3.2 Intangible achievements: Employee involvement, engagement etc.	18
Chapter 4: Key Factors to Success	20
Chapter 5: Achievement Sheet	21

Chapter 1: Company profile

1.1 About Junlebao Group



Junlebao Dairy Co., Ltd. was established in 1995. It is the largest dairy company in Hebei Province, a national key enterprise in the agricultural industrialization program, a national high-tech enterprise, a national sub-center of dairy research and development, Vice President Unit of National High-tech Enterprises Association, and Chairman Unit of Hebei Dairy Association. In 2015, all Junlebao's liquid milk factories passed the A-level certification of EU BRC food safety standard, and milk powder factories passed the BRC A+ top-level certification, becoming Junlebao the world's first milk powder company that have passed the A+ certification.

After 29 years of development, Junlebao now has 25 production plants, 44 standardized large-scale dairy farms, more than 33333 hectares of self-built forage farms, and more than 150,000 dairy cows. It is the No.1 dairy brand in North China. The sales area covers the whole country, with main sales areas in North China, Northeast China and East China. According to Nielsen's data statistics in 2023, the market share of Junlebao in yogurt and fermented milk market ranks third in China, and the market share of milk powder ranks third in China.

Junlebao aims to become the leader in China's nutritional and healthy food industry and a top-20 company in global dairy industry, with two No.1's (milk powder and low-temperature) and annual revenue of 66 billion Yuan. From 2013 to 2023, the sales revenue grew at a compound annual growth rate of 20%. The target sales for 2027 is RMB 66 billion.

Yogurt ranks second in national retail sales and is the top dairy brand in Hebei province.



Junlebao has four business divisions: Consumer Goods, High-end Goods, Milk Powder, and Husbandry. The Qizhi high-end milk powder and the “little can” are very popular among young mothers. The Yuexianhuo, a fresh milk product manufactured through 0.09-second sterilization, is a more nutritious and healthy option for consumers.

Utilizing a supply chain that covers the entire dairy industry and its “six-world-class” model, Junlebao aims to provide nutritious, healthy, and safety dairy products to consumers.

“六个世界级” 模式，确保高品质



世界级的
奶牛育种



世界级的
研发平台



世界级的
先进牧场



世界级的
领先工厂



世界级的
合作伙伴



世界级的
食品安全管理体系

1.2 About Yongsheng Plant

1.2.1 Profile

Yongsheng Plant is the TPM pilot factory of Junlebao Group. The Group hopes that Yongsheng Plant can continue TPM activities and share its experiences with other divisions and even the entire group.

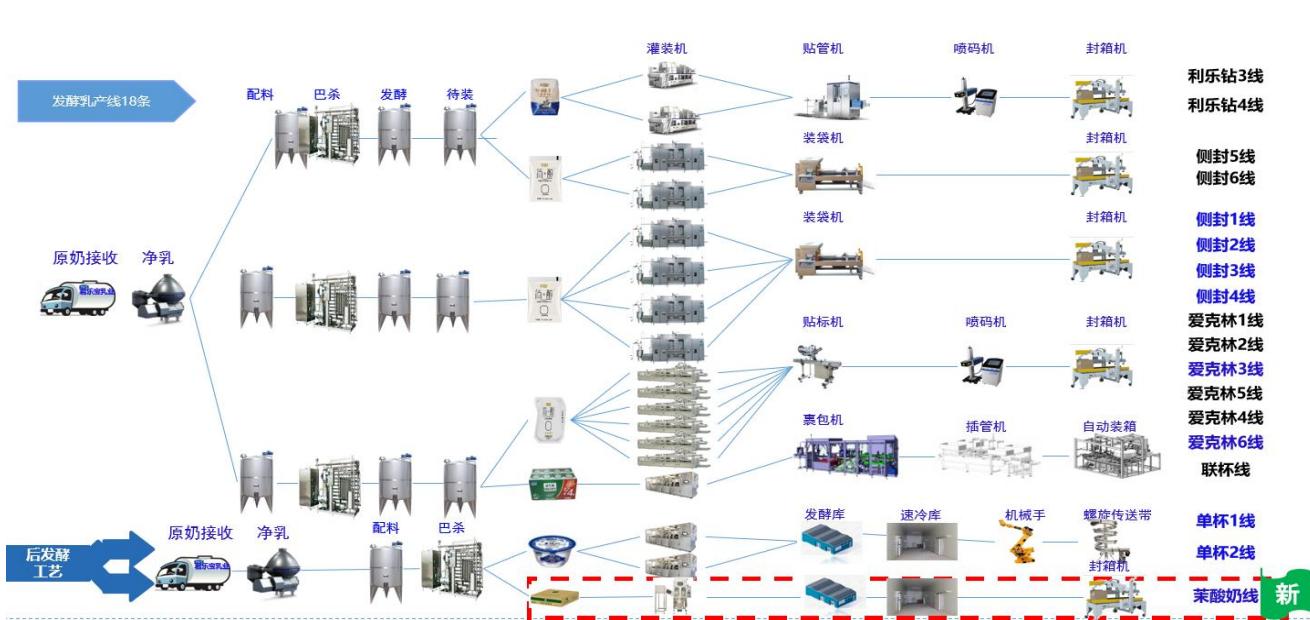
Yongsheng Plant is located in the Junlebao Dairy Town, Luquan Development Zone, Shijiazhuang City, Hebei Province. Junlebao Dairy Town has 3 milk powder plants and 2 yogurt plants. Yongsheng Plant is in the same park as Junlebao headquarter.

The No.1 and No.2 workshops started TPM in 2015. The Plant passed CNAS laboratory certification in 2017, awarded TPM Excellence Award in 2019, the only title of Green Factory in Hebei Province in 2020. In 2021, No.2 Workshop was awarded the Award for Excellence in Consistent TPM Commitment and the title of Key Leading Enterprise. In 2022, No.1 Workshop was awarded the Award for Excellence in Consistent TPM Commitment. In 2023, No.2 Workshop won the TPM Special Award. In July, the No.1 and No.2 workshops were merged, and the Plant became a class 1 safety standardization plant in Shijiazhuang city. The Plant has applied for assessment for TPM Advanced Special Award to be conducted in 2025.

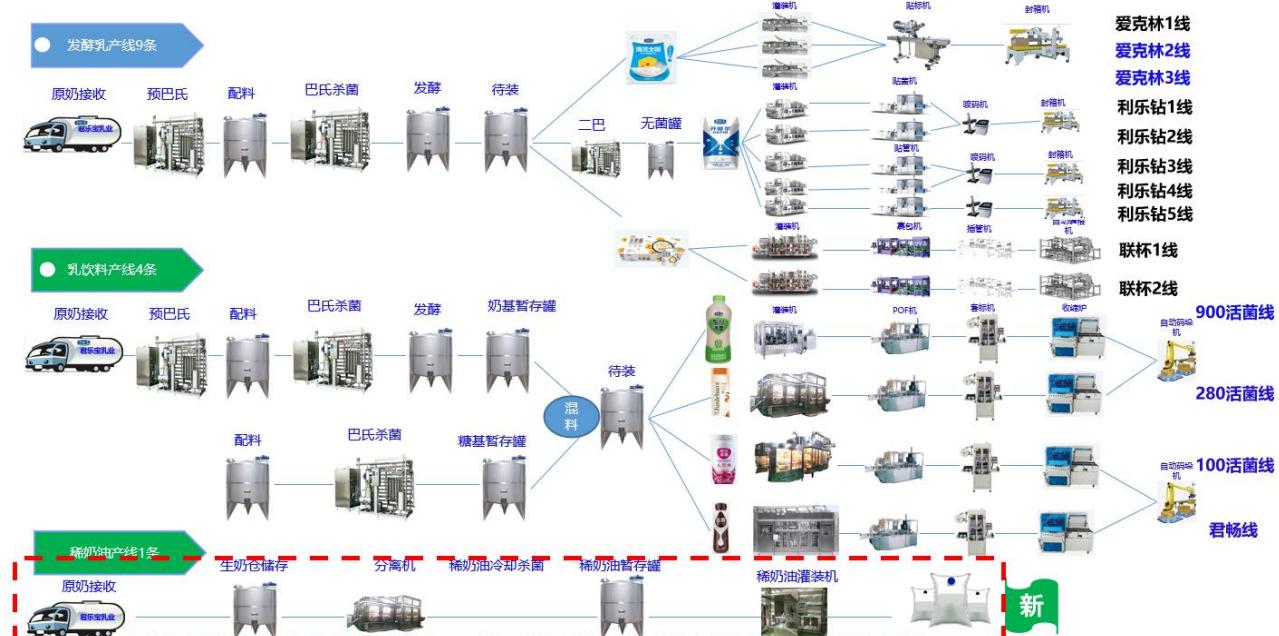


1.2.2 Production Process

Equipped with leading technology and equipment, Yongsheng Plant produces low-temperature products that are of the highest grade in China. The route of people, materials, gasses, and wastes in the Plant are clearly defined. There are a total of 32 production lines in the Plant. The No.1 workshop is equipped with 18 yogurt production lines. 3 lines are post-fermentation lines, including 2 lines for original yogurt and 1 line for More yogurt introduced in 2024.



The No.2 workshop is equipped with 9 yogurt lines 14 milk drink lines, and one whipped cream line introduced in 2024.



1.2.3 Equipment and Products

Currently, the Plant produces two categories of products: yogurt and milk drink. The production volume was 200,200 tons in 2023. The production volume of yogurt products (No.1 and No.2 workshops) was 186,400 tons, which was 93.1% of the total production of the Plant. Therefore, yogurt is the main category of the Plant. The Plant currently has 33 SKU's. The production volume of new products is 16,000 tons in 2024.

The Cheese-up yogurt, which was released in 2017 and has an annual sale of 200 million packs, is the star product of the Group. The Class Break and School milk products, both are new products, keep a record of zero-claim so far.

The Plant is equipped with 1,202 machines, including 73 class-A machines and 271 class-B machines. With increasing improvement in equipment reliability, thanks to TPM activity, the number of class-A machines is decreasing, despite of the increased introduction of new equipment every year.

分类	序号	产品线	前处理	工段				包装	
				标准出包数(包/小时)	设备厂家	型号	生产线(条)		
发酵乳	1	侧封	A类20台 B类129台	8000	国产/普利盛 国产/中亚	GSYBJ-7000	6	A类18台 B类82台	
	2	开啡尔		9000	瑞典利乐	A3CF	5		
	3	梦幻盖		9000	瑞典利乐	A3CF	2		
	4	联杯		44000	法国安其乐	A7	2		
	5			40000	德国/海思亚	THNB2/48	1		
	6	爱克林		5300	瑞典/爱克林 (低速)	EL2A-2160501	4		
	7			12000	瑞典/爱克林 (高速)	EL2+	4		
后发酵乳	8	单杯		20000	合资/上海四国	HFS-12FD	1		
	9	茉酸奶		240	哈尔滨赛德技术发展有限公司	4bags/min	1		
乳饮料	10	活菌900瓶		10000	台湾贵一	OAM13A05-3	1		
	11	活菌280瓶		18000		OAM13A05	1		
稀奶油	12	君畅线		17500	荷兰施托克	ASEP-TEC.1222	1		
	13	稀奶油		2.4T	山东青州兴泰包装机械有限公司	—	1		

前处理



灌装



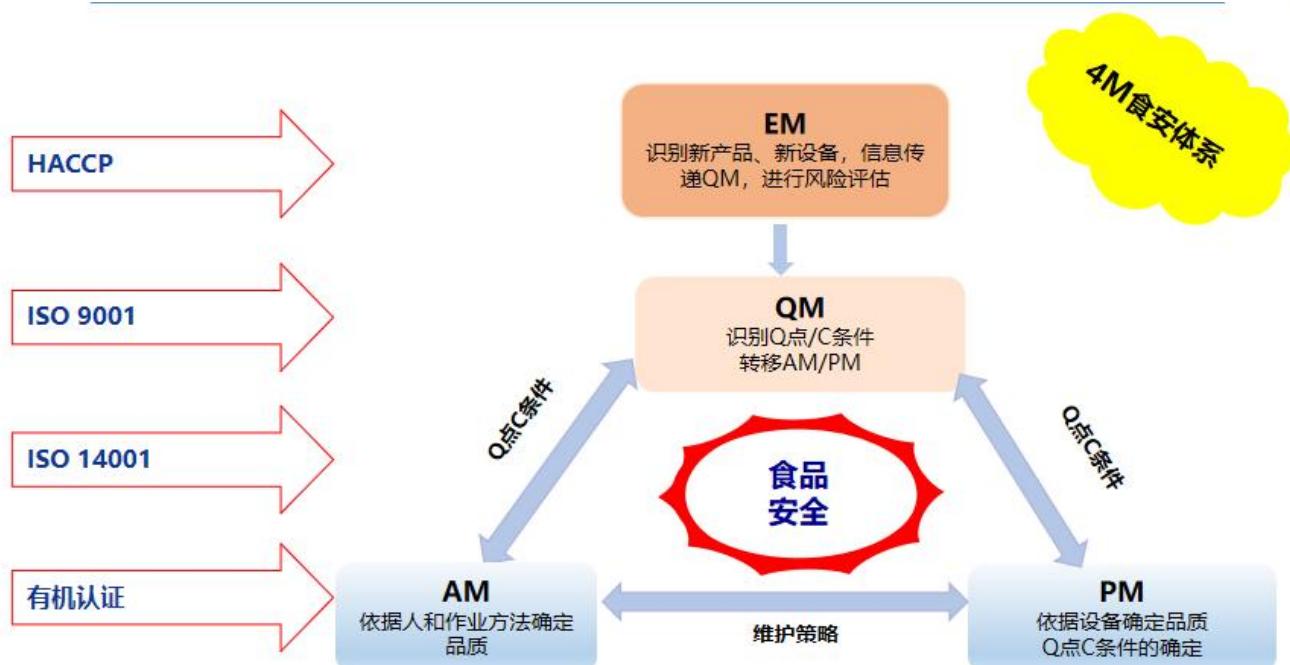
后包装



1.2.4 Food Safety Management

Food safety is one of the priorities of factory management. Based on HACCP and ISO systems, the Plant conducts foreign matter management, hazard analysis, HACCP planning, links them with Q points and C conditions identified by EM and QM pillars, and ensure food safety through CIL, TBM, and CBM activities by AM and PM pillars.

In the advanced special award stage, we clearly defined the roles of 4M pillars, strengthened cooperation with EM, conducted risk identification and control related to new product formula, process, and packaging design, eliminated food safety risks through product design, and ensured that food safety incidents continued to be zero.



1.2.5 Organizational Structure

The production, equipment and quality departments operate in three shifts and two operations. All performance indicators are reviewed through three-level DMS management of TPM committee, departments and teams.

Currently, the Plant hires 627 employees (and 164 temporary employees). 69.08% employees are direct employees, and 51.03% employees have served for more than 5 years. The workforce is stable and young.



Chapter 2: TPM Organization and Activities

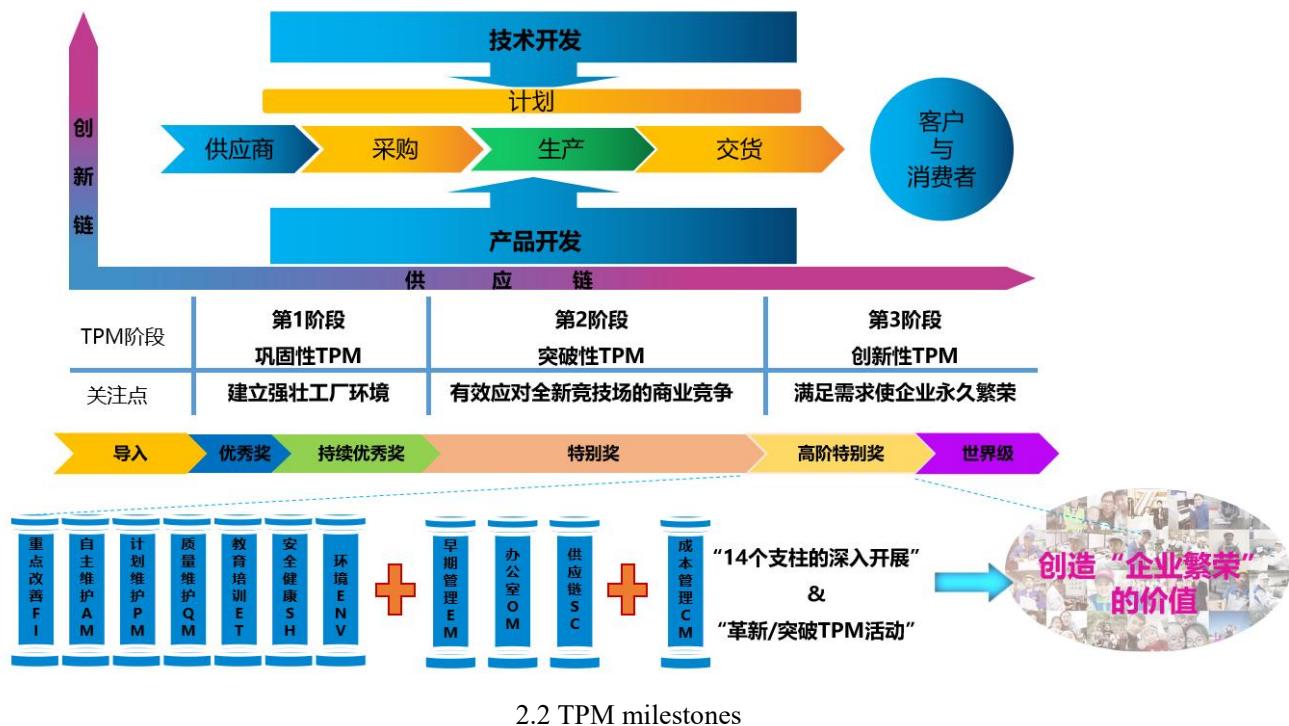
2.1 TPM milestones

To create a world-class dairy food factory, the Plant introduced TPM in No.1 and No.2 plants in 2015. In July 2023, No.1 and No.2 plants were merged. Currently, there is one Plant Director and 9 department managers in the Plant. There are 14 TPM pillars, including 2 FI, 2 AM, and 2 QM pillars. Through integration of operation and maintenance functions, some PM works were handed over to AM. PM pillar is mainly responsible for the overall planning of equipment. With the progress of TPM activities, FI, AM and QM pillars of the two plants will be merged in the future.



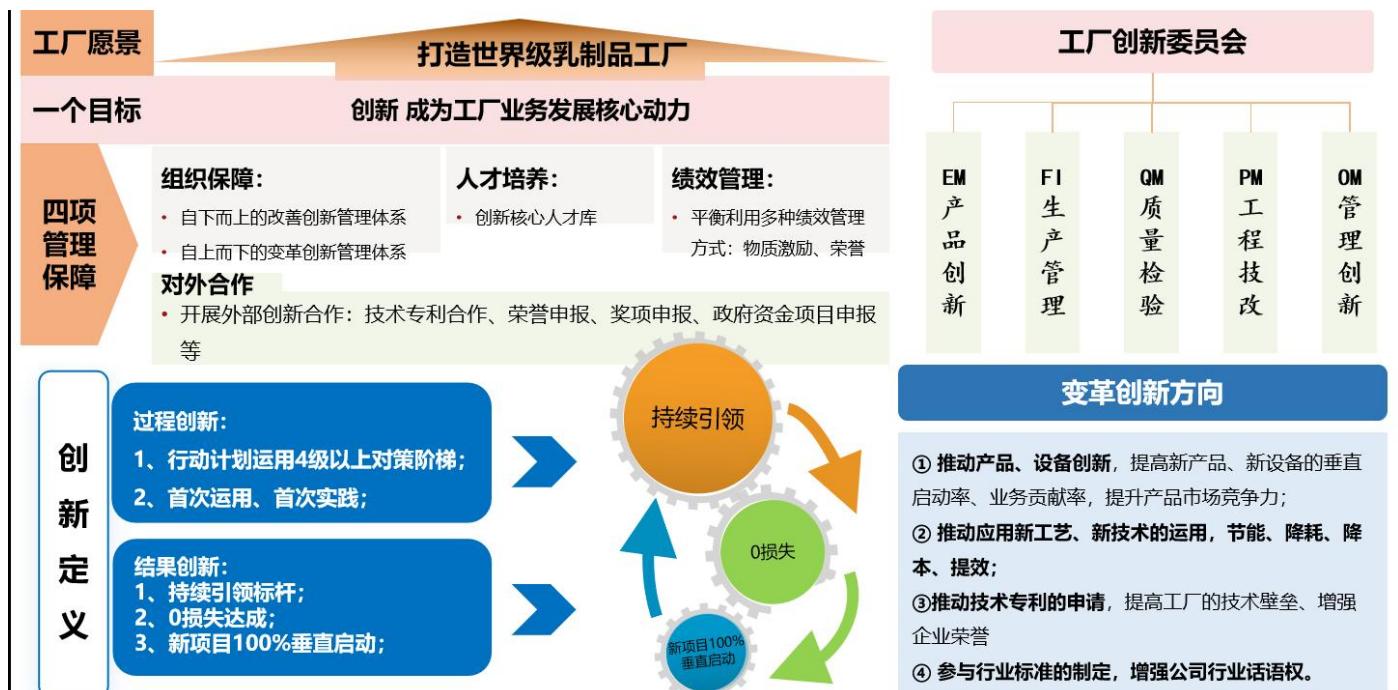
2.2 Focus of Activities

The No.1 and No.2 workshops started TPM activities in 2015 and received TPM Excellence Award in 2019. The No.2 workshop received the Award for Excellence in Consistent TPM Commitment in 2021, while the No.1 workshop received the same award in 2022. The No.2 workshop received the Special Award for TPM Achievement through innovative CM activities in 2022. Since the merge of two workshops, the No.2 workshop shared its experiences with the No.1 workshop. The Plant hopes to challenge the Advanced Special Award for TPM Achievement in 2025.



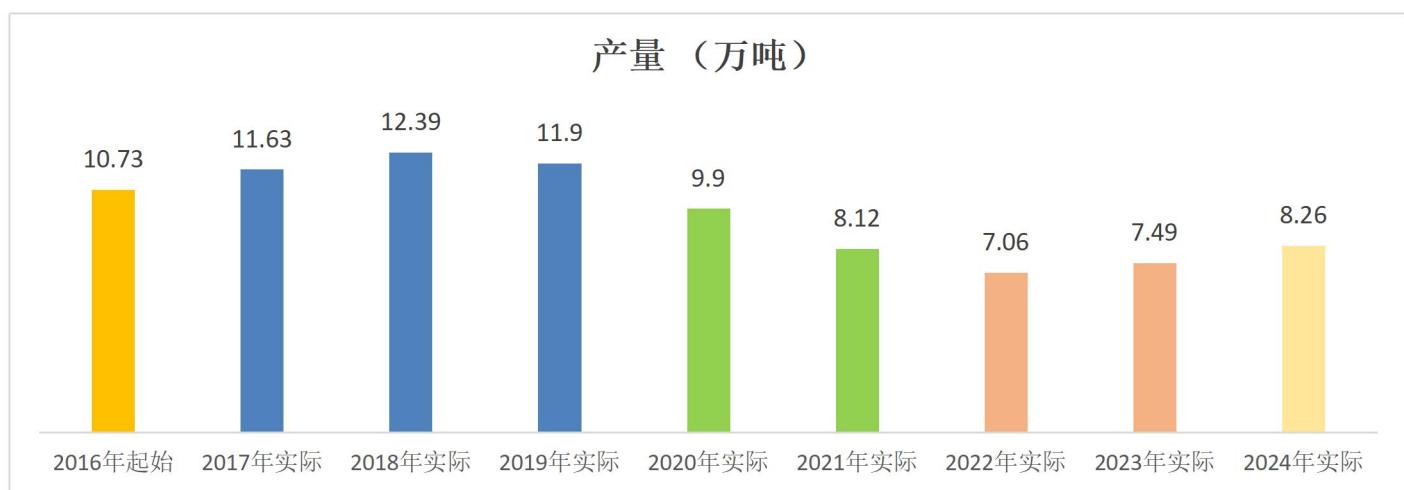
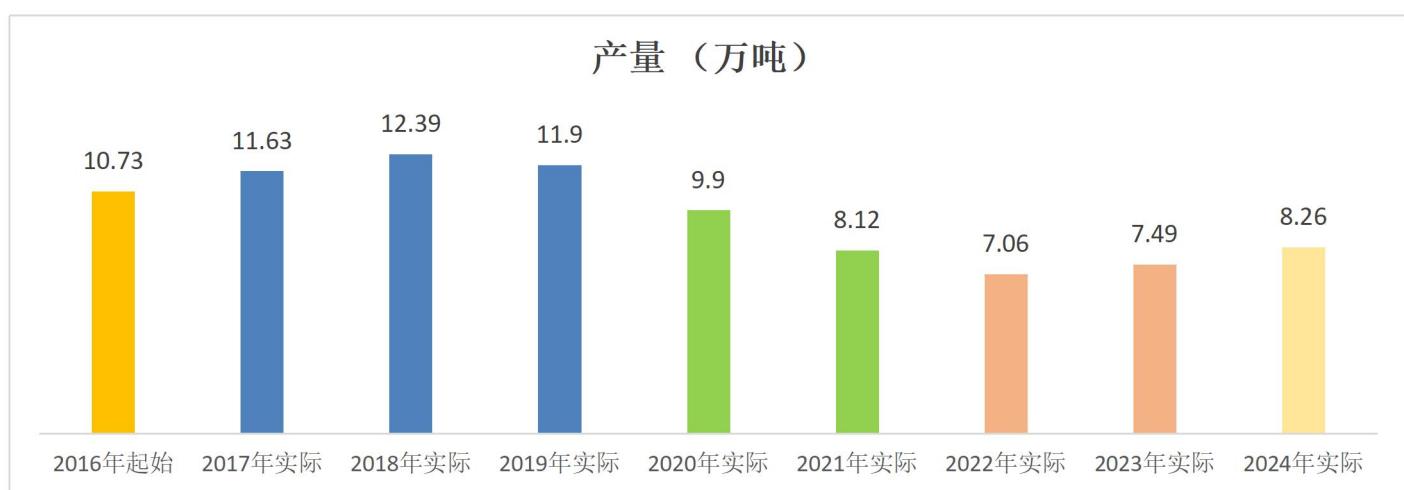
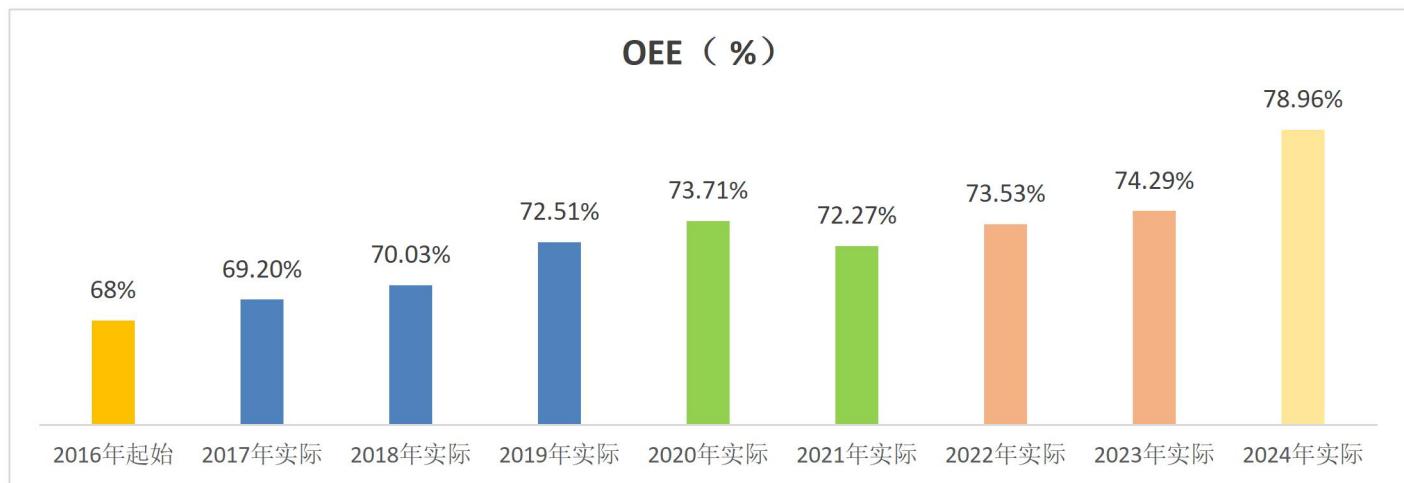
2.2 TPM milestones

To achieve the Advanced Special Award, the Plant sorted out an upgrade plan of "one goal and four management guarantees" and established an innovation committee. Each pillar promotes innovative activities related to new technologies, new processes, and new products. We clarified and transformed the definition of innovation, and determined the goals and directions of innovation activities. We aim to build loss-zero benchmark through leadership in energy saving, reduction of energy consumption reduction, cost reduction and efficiency improvement.



Chapter 3: Achievements

3.1 Tangible achievements: Improved performance



食品安全事件起数 (起)

0 0 0 0 0 0 0 0 0

2016年起始 2017年实际 2018年实际 2019年实际 2020年实际 2021年实际 2022年实际 2023年实际 2024年实际

总投诉率 (条/百吨)

2.092 2.092 1.76 1.43 1.95 1.81 1.054 0.58 2.06

2016年起始 2017年实际 2018年实际 2019年实际 2020年实际 2021年实际 2022年实际 2023年实际 2024年实际

单吨制费 (%)

1011 1024 992 1032 1100 972 1002 1379 1189

2016年起始 2017年实际 2018年实际 2019年实际 2020年实际 2021年实际 2022年实际 2023年实际 2024年实际

单吨成本 (元/吨)



完美交付率 (%)



就医事件 (起)

年份	就医事件 (起)
2016年起始	0
2017年实际	0
2018年实际	0
2019年实际	0
2020年实际	0
2021年实际	0
2022年实际	0
2023年实际	0
2024年实际	0

专家人才人数 (人)

10



2024年实际

员工满意度 (%)

99.3

99.2

99

98.6

98.1

97.6

95.7

93.1

2017年实际

2018年实际

2019年实际

2020年实际

2021年实际

2022年实际

2023年实际

2024年实际

二氧化碳排放量 (吨/吨)

0.71

0.65

0.58

0.54

0.52

0.51

0.49

0.45

0.42

2016年起始

2017年实际

2018年实际

2019年实际

2020年实际

2021年实际

2022年实际

2023年实际

2024年实际

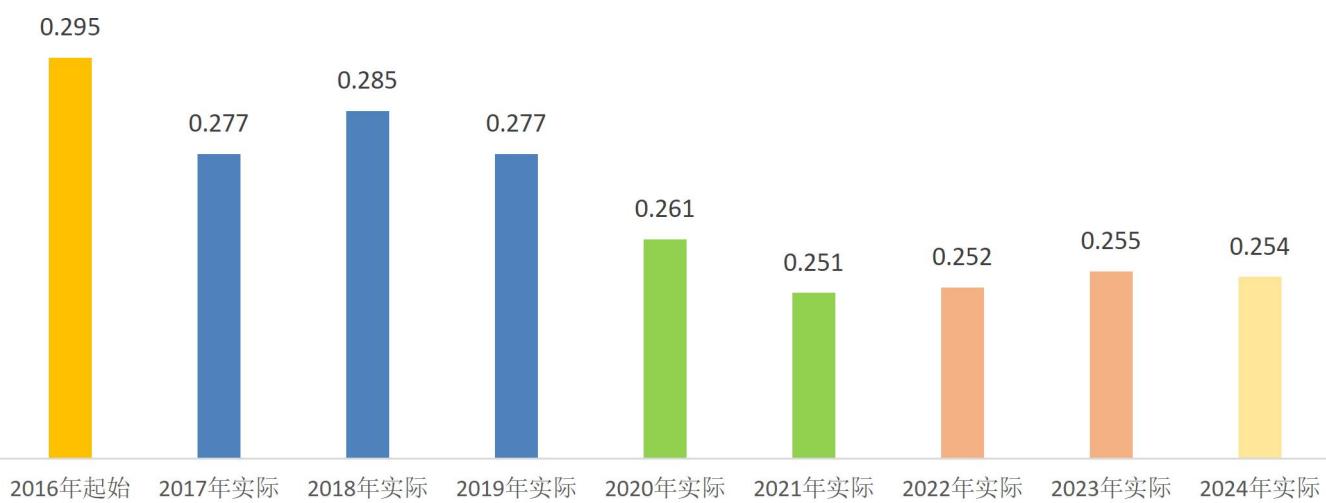
水吨耗 (吨/吨)



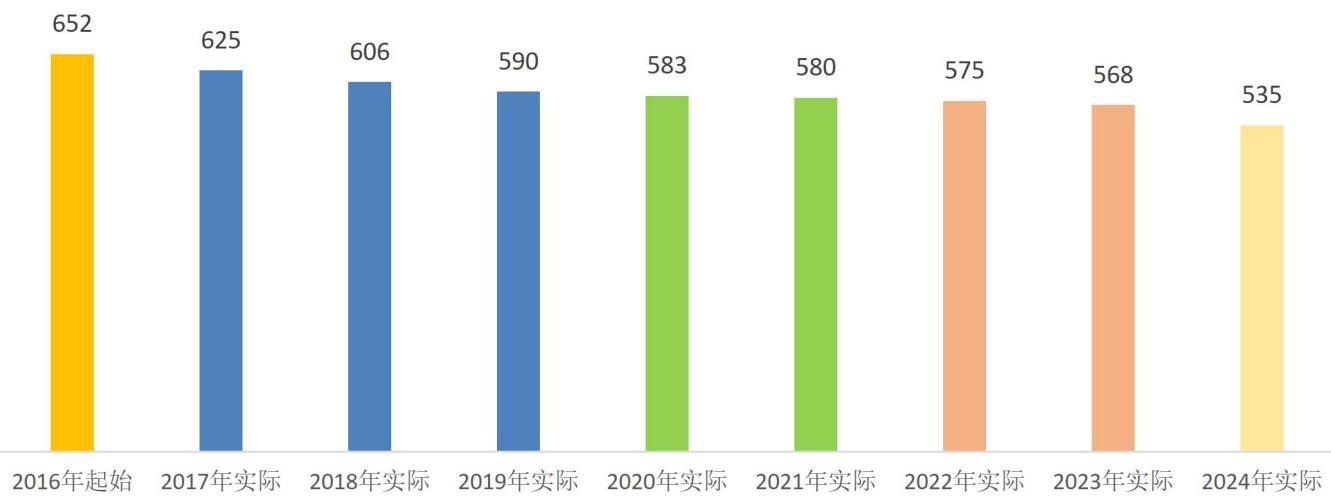
电吨耗 (度/吨)



蒸汽吨耗 (吨/吨)



固废弃物排放量（吨/月）



3.2 Intangible achievements: Employee involvement, engagement etc.

TPM also brought forth many intangible benefits. 1) Supply chain improvement: 41 divisional benchmarks, elimination of 3 losses, 7 TPM experts. 2) Double safety: 23 divisional benchmarks, elimination of 9 losses. 3) Upgrading of trial-production base: 10 divisional benchmarks, 7 talents. 4) Talent development: 47 TPM experts.

工厂战略	助力企业繁荣		
	引领事业部标杆	持续追求零损失	TPM人才培养
引领全链改善	41	3	7
树双安全标杆	23	9	0
升级中试基地	10	0	7
持续输出人才	6	3	38
合计	80	15	52

The Plant is a national green factory, second-grade national green warehouse, a key leading enterprise in Shijiazhuang city, and received Special Award for TPM Achievement in 2023.



3.2.1 National green factory



3.2.2 Second-grade national green warehouse



3.2.3 Special Award for TPM Achievement



3.2.4 Key leading enterprise

Chapter 4: Key Factors to Success

Yongsheng Plant introduced TPM through implementation of Kaizen team projects. In the beginning, we set up pillars and teams, and involved all employees in improvement activities. Then we started loss-zero activities for improving our competitive edge. Currently, we are working on upgrade of our trial production base and horizontal deployment of improvements and best practices to similar lines and other plants through cooperation of pillars.

Regarding pillar management, we focus on pillar cooperation, skill matrix assessment, member education, performance management, best practice sharing, activity board management, pillar assessment, PDCA, and autonomous management.

Regarding team management, we focus on loss deployment, issue identification, member selection, skill education, three-level assessment of activity results, and horizontal deployment of best practices. During the stage of Advanced Special Award, we have shared 11 best practices with other factories of the Group, and fostered 41 team leaders, which is a benchmark of the Group.

As for DMS activity, our DMS covers not only production site, but also peripheral areas. The focus of DMS discussion shifted from KPI to KAI performance. In the stage of Advanced Special Award, our DMS has two changes: 1) Internal activity: Sharing and discussion by operators. 2) External activity: Horizontal deployment of DMS management procedure to 21 plants of Junlebao Group.

To create an atmosphere of improvement and participation, we organized many promotional activities such as TPM promotion, employee satisfaction seminars, quarterly TPM outdoor activities, quarterly improvement PK competitions, management talent activation, internal and external visit etc. We also participate in the weekly WCM meeting of the Group, monthly assessment by TetraPak consultants, and external communication to improvement understanding of TPM.

Chapter 5: Achievement Sheet

Company & plant name		Shijiazhuang Yongsheng Diary Group Co., Ltd			
TPM Slogan/Objectives		Build a world-class diary product factory			
Category	Index	Unit	BM (TPM Started or last time awarded)	Actual Status	Target
Enter the year →			2023	2024YTD (11)	2024
S	Number of work-related accidents requiring days off work	Cases/ year	0	0	0
S	Number of work-related accidents not requiring days off work	Cases/ year	0	0	0
P	Productivity for main products	Parts/Operator hours	0.632	0.734	0.754
P	OEE (or Overall Plant Efficiency)	%	75.3	76.5	76.3
P	Availability	%	0.765	0.774	0.773
P	Performance Rate	%	0.991	0.993	0.992
P	Quality Products Rate	%	0.994	0.996	0.995
P	Number of breakdowns	Breakdowns/ year	12	10	11
P	MTBF	Hour	25	30	28
P	MTTR	Hour	21	17	15

Q	Number of customer complaints	Number/year	335	1454	2200
Q	In-line defect rate (scrap)	%	0.145	0.14	0.14
C	Cost index	Cost/Unit Cost/Kilogram	8721	8602	8630
D	Production Lead time	Hour	31.35	29	29
D	Delivery performance	%	99.88	99.95	99.7
S	Number of occupational accidents with leave for 1 000 000 worked hours	%	0	0	0
M	Number of Employee Suggestions	Number/year	3290	3374	3400