

Total Productive Maintenance

PT Sanghiang Perkasa (Kalbe Nutritionals)





Chapter: Chapter 1

Company Profile

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Chapter 1



Company Profile

- 1.1 Company Profile
 - 1.1.1. Location
 - 1.1.2. History
 - 1.1.3. Organizations
 - 1.1.4. Plant Layout
 - 1.1.5. Size of Business
- 1.2 Productions System (Business Process)
- 1.3 Main Products and Production Processes
- 1.4 Market Share
- 1.5 TPM Inauguration

Kalbe Nutritionals - Manufacturing

1.1 Company Profile

1.1.1 Location





PT SANGHIANG PERKASA (KALBE NUTRITIONALS)

Location

Kawasan Industri Indotaisei Sektor 1 A Blok Q2 Kota Bukit Indah Cikampek, Karawang Jawa Barat

1.1 Company Profile

1.1.2 History







1985

SHP established & Build plant at Pulo Lentut (Pulogadung Industrial Estate)



1996

SHP was appointed as Kalbe Health Food Division of Kalbe Group, Relocated plant to Cakung



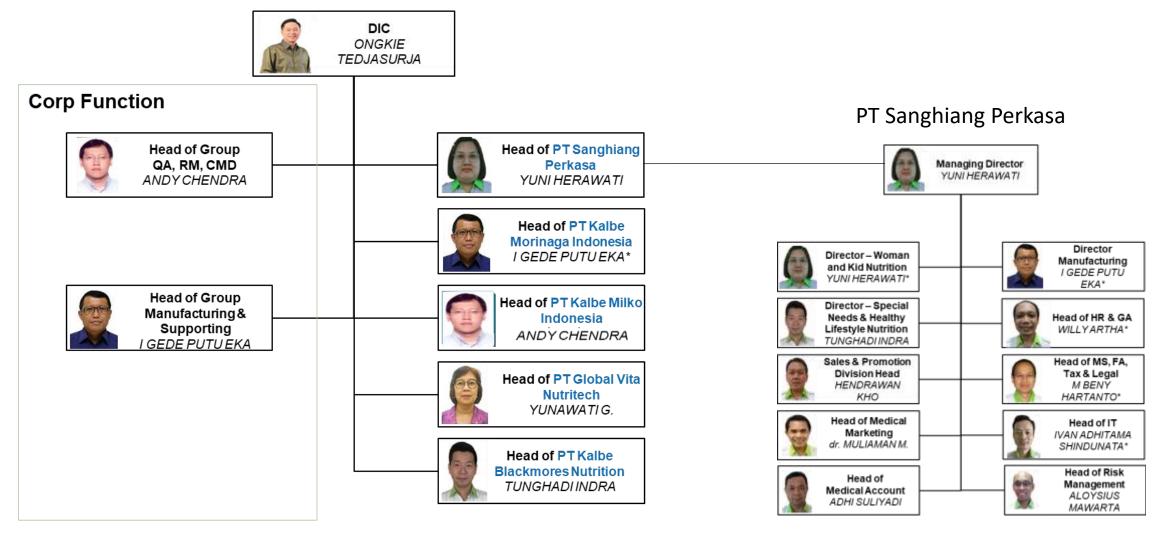
2015

New Factory in Cikampek start operation (Plant Cakung move to Cikampek).

1.1 Company Profile

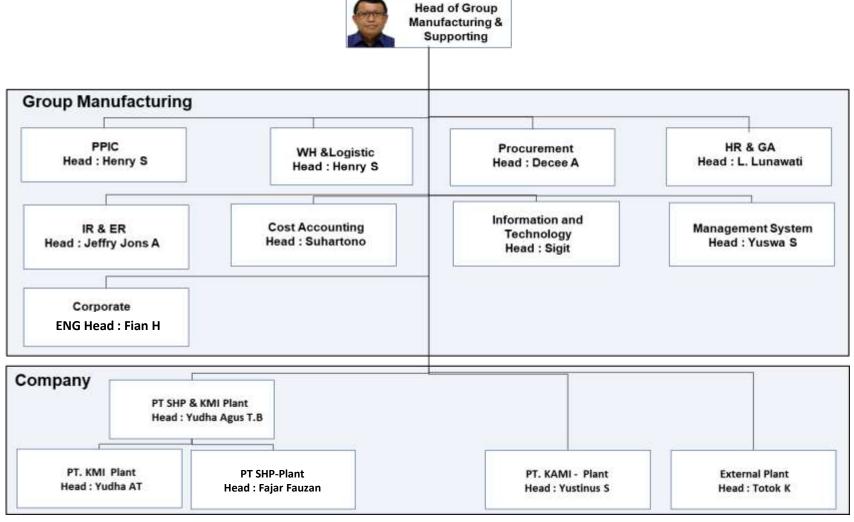
1.1.3 Organizations





1.1 Company Profile 1.1.3 Organizations

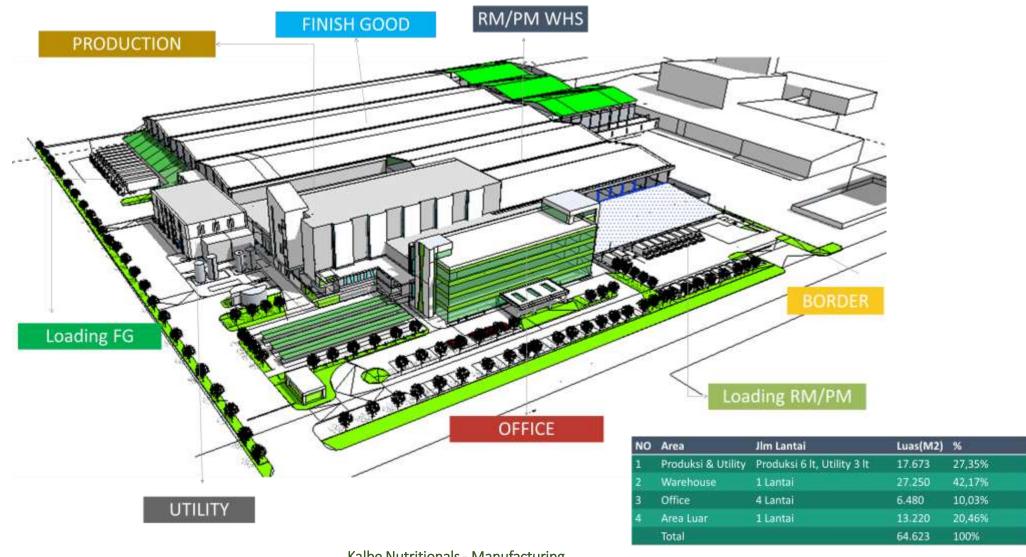




President Director:

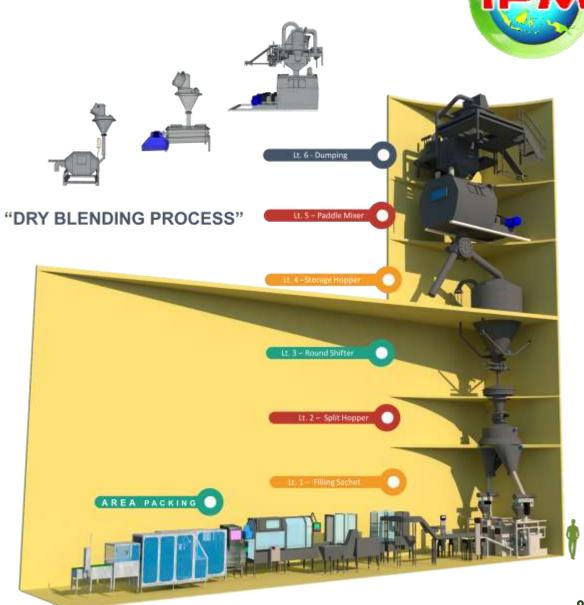
1.1 Company Profile 1.1.4 Plant Layout





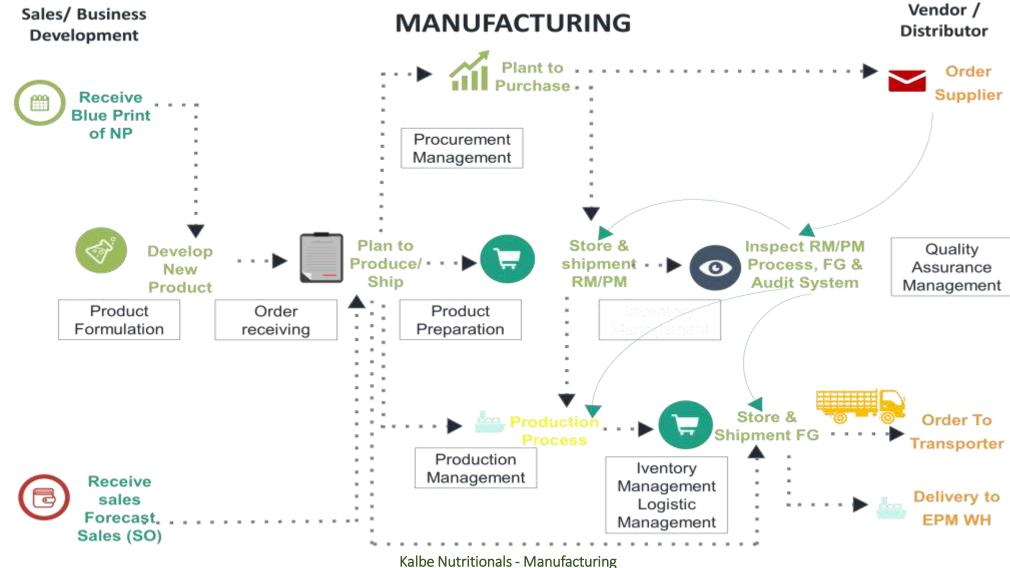
1.1 Company Profile 1.1.5 Size of Business

No	Line	Circle	Dept.	Area	Capacity (ton/month)
1	А	AUTOBOT	Production	Blender,filling ,packing	450,39
2	В	BEAUTY	Production	Blender,filling ,packing	278,26
3	С	CHAMPION	Production	Blender,filling ,packing	92,75
4	D1	D ONE	Production	Blender,filling ,packing	113,61
5	D2	DIAMOND - DINAMITE	Production	Blender,filling ,packing	222,11
6	Е	ELECTRA	Production	Blender,filling ,packing	441,14
7	F1	FUNTASTIC	Production	Blender,filling ,packing	26,36
8	G1	GENIOUS	Production	Blender,filling ,packing	260,61
9	H1	Dinicho	Production	Blender,filling ,packing	17,49
10	H2	HERO	Production	Blender,filling ,packing	7,40
11	1	ISTIMEWA	Production	Blender,filling ,packing	6,94
12	J	JOSS	Production	Blender,filling ,packing	225,07
13		UTILITY	Engineering	AHU	
14		ROBOTIC	Production	Robotic Palletizing	



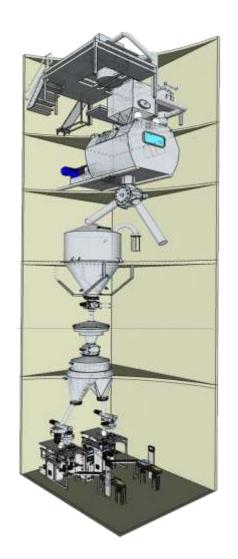
1.2 Productions System (Business Process)





1.3 Main Products & Productions Processes







1.3 Main Products & Productions

Processes 35+ PRENAGEN Tween Expecting Entrasol Gold. Zee tween Prenagen & Lovamil Diabetasol **Entrasol** Lactating Zee Teen Prenagen & Lovamil Diabetasol Diabetasol Diabetasol Kid Zee Kidz, Chil-kid, Chil-Go Diabetasol Kalbe's Nutritional 25+ Entrasol Active Division Lovamil Lovamil Lovamil Product Clinical Hepatosol, Peptisol, Peptibren, Hepatosol-D Baby Welnes Toddler Morinaga: Benecol, Fitchips, Milna 6 toddler & Pudding BMT, Chil Kid, Chil School, Fitbar, Diva Milna 6 bulan, Milna 9 bulan

1.4 Market Share

Indonesia Urban (Vol % & Val % Share)

Total Powder Milk Market Growth

	Volume	Value
MAT Grw	-1.7	-0.4
YTD Grw	-1.7	-0.4

Growth VS Previous Period

	NOV20	DEC20	PP Grw
Vol	16.813.220	17.407.294	3,5
Val	1.980.868	2.051.719	3,6

Indonesia Urban Vol % Share	DEC20	Gap Share vs PP	Growth vs PP	Growth vs MAT	Growth vs YTD
PT 1111	30,6	-0,6	1,5	-7,4	-7.4
PT 2222	28,9	-0,1	3,3	-0,7	-0.7
PT 3333	9,3	-0,4	-0,5	-0,3	0.0
SHP	8,3	0,1	4,8	-6,9	-6.9
PT 444	7,8	0,3	8,0	5,6	5.6
PT 555	7,2	0,3	7,0	32,7	32.7
PT 666	3,2	0,2	11,4	3,0	3.0
PT 777	1,4	0,1	9,8	-15,4	-15.4
PT 888	0,9	0,0	4,5	-2,8	-2.8
PT 9999	0,9	0,1	9,1	10,7	10.7

Indonesia Urban Val % Share	DEC20	Gap Share vs PP	Growth vs PP	Growth vs MAT	Growth vs YTD
PT 1111	27,1	0,0	3,3	0,4	0.4
PT 2222	23,8	-0,4	1,7	-5,5	-5.5
PT 3333	13,0	-0,5	-0,3	0,2	0.2
SHP	13,0	0,2	4,6	-4,5	-4.5
PT 444	7,0	0,3	7,8	8,1	8.1
PT 555	4,1	0,1	6,1	33,7	33.7
PT 666	3,8	0,3	10,6	5,4	5.4
PT 777	2,5	0,1	8,9	14,5	14.5
PT 888	2,2	0,0	4,8	0,9	0.9
PT 9999	1,8	0,1	8,7	-14,9	-14.9

1.5 TPM Inauguration



Management Decision to implement TPM



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Chapter 2



TPM Policy & Goals

- 2.1 Why SHP Choose TPM
- 2.2 Company Policy
 - 2.2.1 Vision & Mission
 - 2.2.2 SHP Balance Score Card
 - 2.2.3 Initiatives KN_Operations
- 2.3 TPM Policy
 - 2.3.1 Objective & Strategies
 - 2.3.2 Road Map
 - 2.3.3 TPM Master Plan
- 2.4 TPM Target (KPI)

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2.1 WHY SHP CHOOSE TPM



Customer



Competitor Cost , Speed, Quality

Company





The 8 Pillars of TPM

We Believed that TPM implementation will guide our process to be the best...
Best in Quality, Best Cost, Best Speed

2.2 COMPANY POLICY



2.2.1 Vision & Mission

1	What Business Are We In	Nutrition Solutions in Every Stage Of Human Life Cycle
2	Vision	Leading Global Nutrition Company Driven by Innovation, Strong Brands & Excellent Management
3	Mission	Providing Best Nutrition Solution for a Better Life
4	Motto	Nutrition for Life
5	Value KALBE Panca Sradha	Trust is the Glue of Life Mindfulness is the Foundation of Our Action Innovation is the Key to Our Success Strive to be the Best Interconnectedness is a Universal Way of Life

2.2 COMPANY POLICY



2.2.3 Initiatives KN Operation

1

Fulfilment ↑

2

COST ↓↓, Quality ↑

.

Flexibility ↑↑, Reliability ↑

2.3 TPM POLICY

2.3.1 Objective & Strategies



OBJECTIVE

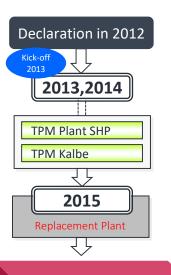
To Be World Class Manufacturing by Zero Losses, Flexibility Process and Competitive Operation Cost

STRATEGY

- 1. Maintain Excellent and Flexible Machine
- 2. Quick Win Process Improvement
- 3. Improve People Competency
- 4. Improve / Reduce Cost With Automation

2.3 TPM POLICY

2.3.2 Road Map



2016

Reconstruction Foundation

5S & Safety, RPP

Standard Operation

Basic Kaizen Training

Road Map

2017 – 2019

Quick Win

5P/5S/5R

Eliminated Loss

AM Start Up

PM Start Up

ET Support Quick Win

2020 - 2022

Zero Operation Loss

Loss Elimination

Capacity Increase

Production Based Quality

Effective PM

Cost & Production

Smart Factory 4.0



2023 - 2025

Half Cost Operation

Lean System

Loading Time Efficiency

Eliminated Waste / NVA Procedure

2.3 TPM POLICY

2.3.3 TPM Master Plan 2017 - 2020



	2017	2018	2019	2020 2021 - 2	025
Secretariat	Kick On Implementation 5 Pillar	Implementati	ion 8 Pillar	Apply TPM Award Next Phase TPM	
FI	Gap Analysis Set up System	Improvement Proj	ect & Evaluation	Project & Evaluation	
AM	AM Step 0 AM Step 1	AM Step 2	AM Step 3	AM Step 4 AM Step 5	
PM	Step 1 Step 2	Step 3	Step 4	Step 5 Step 6	
ET	Gap Analysis Training Need	Training Program For All Employee	DOJO Center, Up Skilling Program	E-learning & Training Facility	
QM	Gap Analysis QM Introduction	Implementation QM Matrix Model Line	Implementation QM Matrix Model Line	Implementation QM Matrix	
EM		New Machine Installation	Commissioning and First	Smart Factory 4.0	
OSA		Administrative Autonomous Maintenance & Makigami	25 & Improvement	Smart Office Project	
SHE	Develop System Campaign & Training	Campaign, safety patrol, Medical check up & Environment Check	Review System Improve Syst	em & Implementation new system	
		Kalbe Nutritionals - Manufacturi	ng		20

2.4 TPM TARGET (KPI)



TARGET KPI TPM PT SANGHIANG PERKASA

	ITEM	Unit	BM 2017	BU 2018	BU 2019	BU 2020	BU 2021	BU 2022	BU 2023	BU 2024	BU 2025
С	Convertion Cost	Rp/Kg	5778	6850	7100	7350	7070	6820	6570	6320	6070
Р	Order Fulfilement	%	99.1%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Р	POE (%)	% OEE	74%	80%	80%	85%	85%	85%	> 85%	> 85%	> 85%
Р	Yield	%	99,8%	99,8%	99,8%	99,8%	100.0%	100.0%	100.0%	100.0%	100.0%
D	NOF	Number	3909	2932	2199	1099	550	275	206	155	116
D	NMS	Number	5961	5318	3989	2992	2244	1683	1262	947	710
Q	CUSTOMER COMPLAIN	ppm	0,27	0,23	0,19	0,15	0,13	0,11	0,10	0,09	0,08
S	Number Major Accident (LTI & MTI)	Number / Year	8	0	0	0	0	0	0	0	0
M	Internal Trainer	Number of Internal Trainer	19	25	33	43	47	47	47	47	47



Chapter 3



TPM Organizations & Activities

3.1 Structure for TPM Implementation

- 3.1.1. TPM Organizational Structure
- 3.1.2. Distribution of members in the Pillars by area
- 3.1.3. TPM Governance

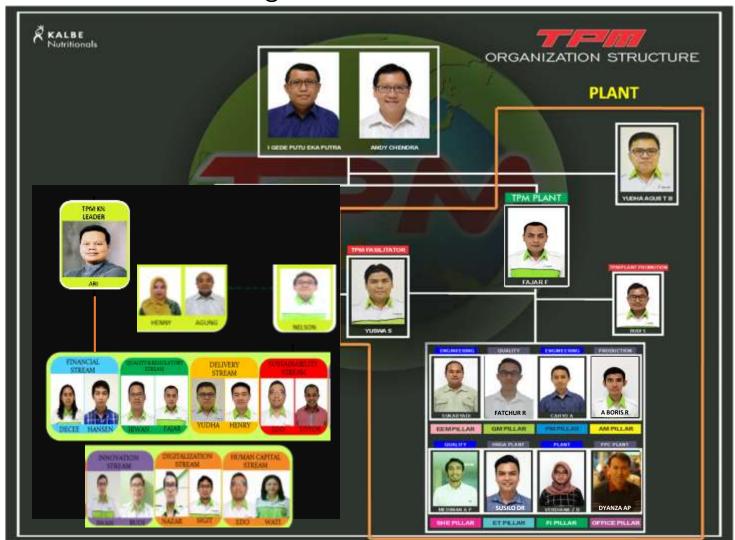
3.2 TPM Implementations

- 3.2.1 TPM Milestones
- 3.2.2 TPM Promotion Activities

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3.1.1 TPM Organizational Structure

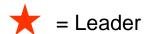






3.1.4 Distribution of members in the Pillars by area

Pillar	Produ	uction	Engin	eering	eering Quality		Planning Control		Human Resource		Process Improvement		Safety, Health & Environment	
	Leader	Member	Leader	Member	Leader	Member	Leader	Member	Leader	Member	Leader	Member	Leader	Member
AUTONOMOUS MAINTENANCE	*			0		0				0				
FOCUS IMPROVEMENT		0		0		0		0		0	*			
PLANNED MAINTENANCE		0	*			0								
EDUCATION & TRAINING		0		0		0			*					
QUALITY MAINTENANCE		0		0	*									
EARLY MANAGEMENT		0	*			0						0		0
OFFICE & ADMINISTRATION		0		0		0	*			0				
SAFETY HEALTH & ENVIRONMENT		0		0		0		0		0		0	*	

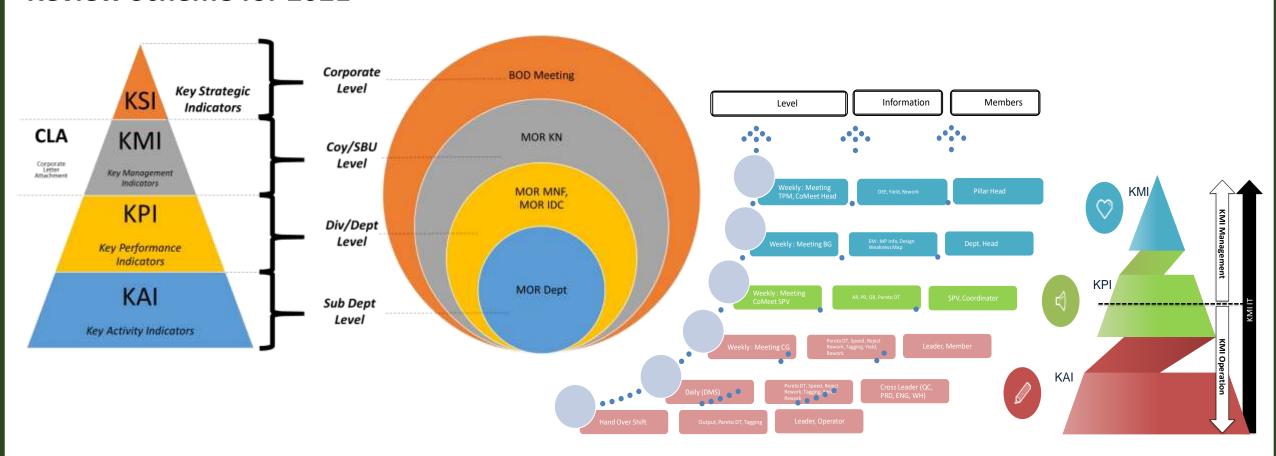


= Member



3.1.5 TPM Governance

Review Scheme for 2021





3.1.5 TPM Governance









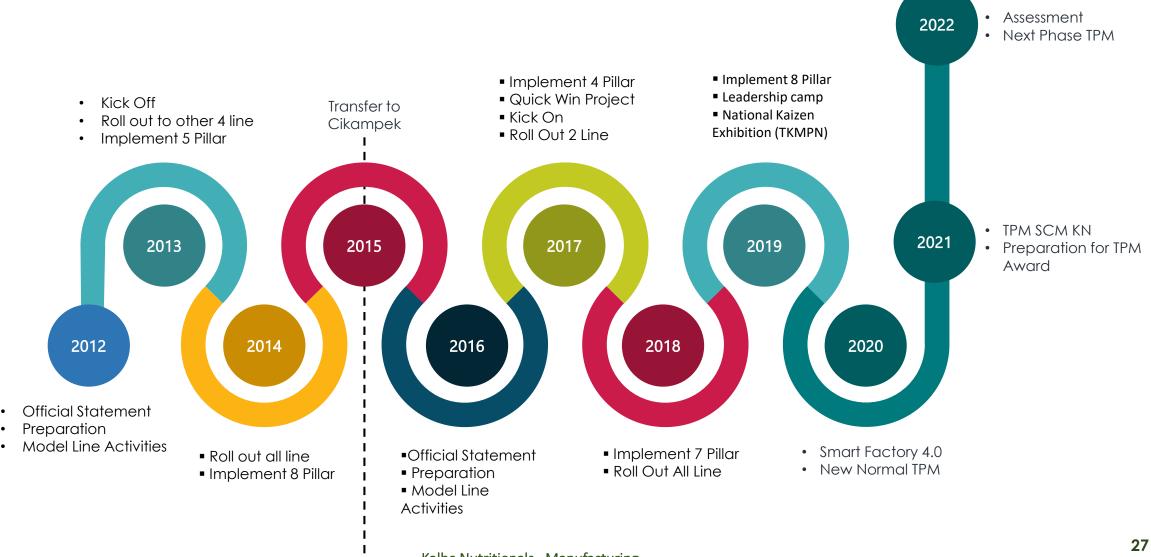






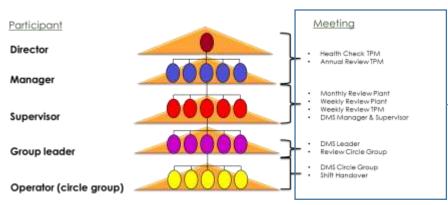
3.2 TPM IMPLEMENTATION

3.2.1 TPM Milestones



3.2 TPM IMPLEMENTATION















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Material Presentation upload on Youtube



- Ahmad Sanusi

Health Check TPM PT. Sanghiang Perkasa youtube.com

https://www.youtube.com /watch?v=s6fUu_3utzc

14:40

3.2 TPM IMPLEMENTATION

3.2.3 TPM Promotion Activities







Chapter 12



Effect & Result

12.1 Tangible Effect

12.1.1. TPM Effect in Production (Plant Effectiveness)

12.1.2. TPM Effect in Quality

12.1.3. TPM Effect in Cost

12.1.4. TPM Effect in Delivery

12.1.5. TPM Effect in Safety

12.1.6. TPM Effect in Morale

12.1.7. TPM Effect in Environment and Energy

12.2 Intangible Effect

12.3 Future Plan

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86,00%

84,00%

82,00%

80,00%

78,00%

76,00%

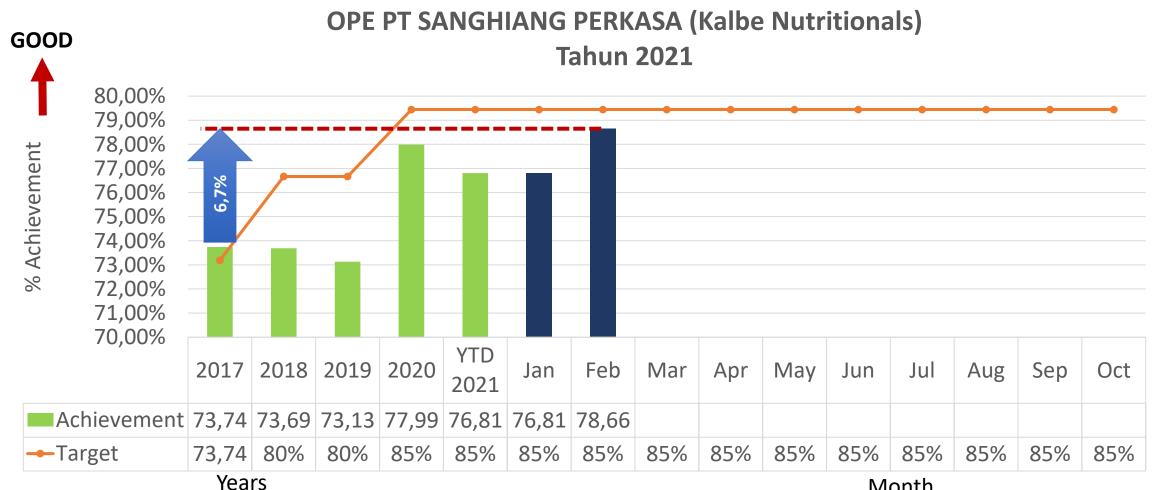
74,00%

72,00%

70,00%

68,00%

12.1.1 TPM Effect in Production (Plant Effectiveness)



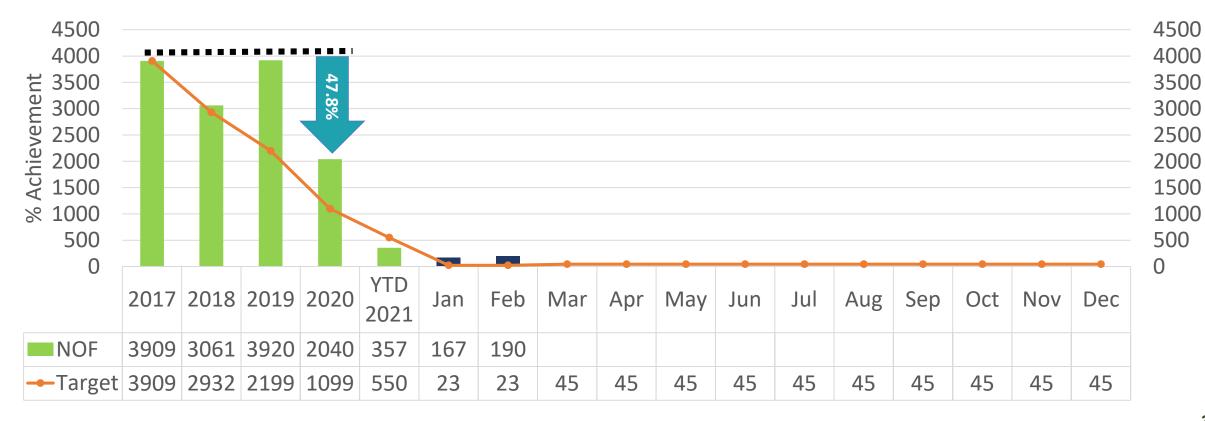
Month



12.1.1 TPM Effect in Production (Plant Effectiveness)



NOF PT SANGHIANG PERKASA (Kalbe Nutritionals) 2021

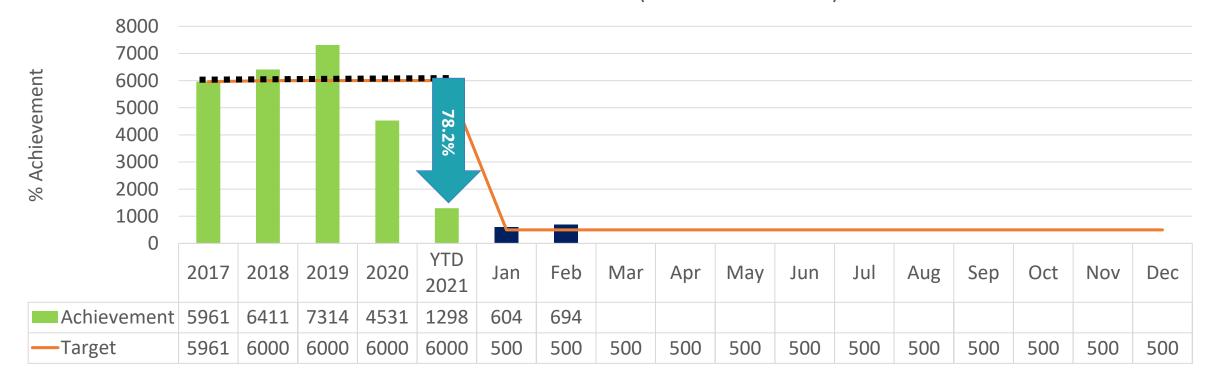




12.1.1 TPM Effect in Production (Plant Effectiveness)



NMS PT SANGHIANG PERKASA (Kalbe Nutritionals) 2021



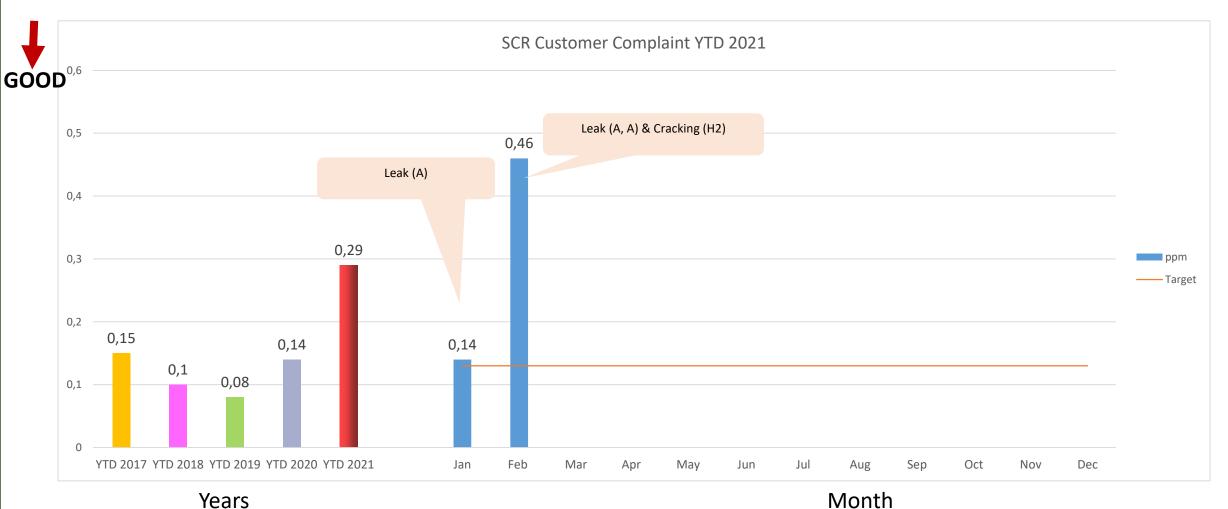
Years

Month

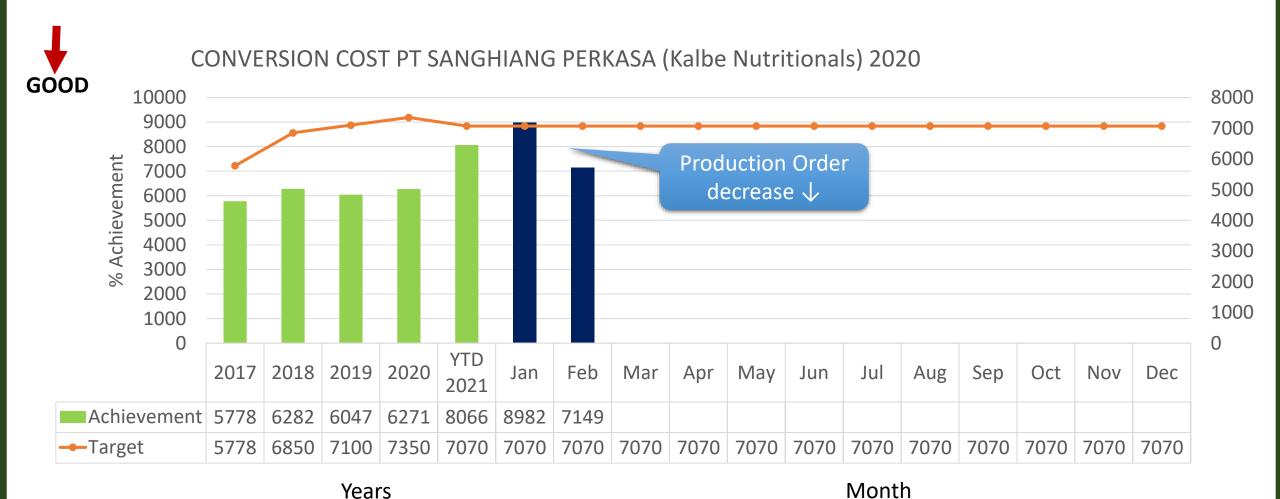
Years



12.1.1 TPM Effect in Production (Plant Effectiveness)

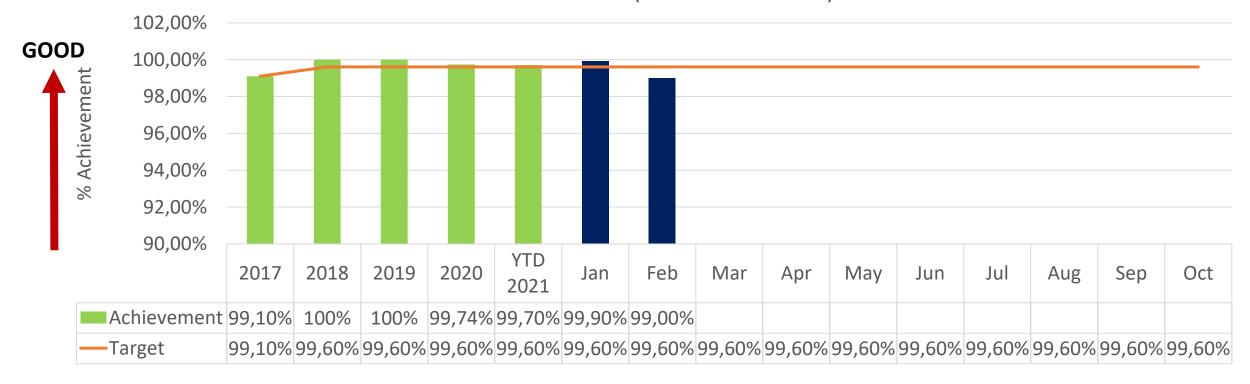


12.1.3 TPM Effect in Cost



12.1.4 TPM Effect in Delivery

OF PT SANGHIANG PERKASA (Kalbe Nutritionals) 2021



Years

Month



12.1.5 TPM Effect in Safety



Years

0

0

0

Series2

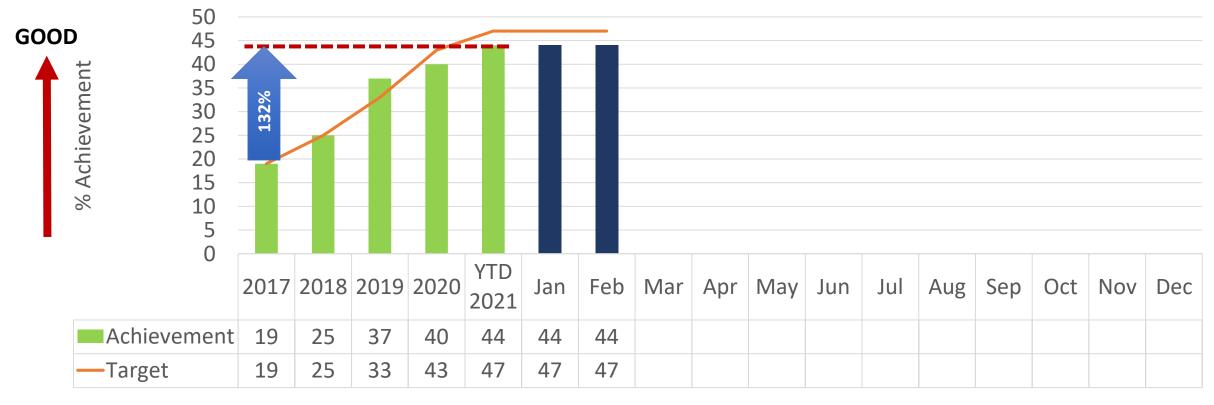
Month

0

12.1.6 TPM Effect in Morale



No. Of Trainer PT SANGHIANG PERKASA (Kalbe Nutritionals) 2021



Years

Month



12.2 INTANGIBLE EFFECT









SHP Team
Achieved GOLD Category
@ TKMPN XXIII SOLO
(National Kaizen Exhibition)





SHP Team @
TKMPN XXIV
(National Kaizen
Exhibition)
1st Online Format
Virtual Exhibition

12.2 INTANGIBLE EFFECT































SHP PLANT CIKAMPEK

Certified for ISO Quality Management System, Food Safety Management System, Safety Management System and Environment Management System

12.2 FUTURE PLAN



1

Maintain 5P & Safety Condition at Workplace

2

Increase OEE/OPE Performance

3

Enhance Cross Pillar Quick Win Project (Transfer Skill & Collaboration)

4

 Alignment of TPM Plant Activity to TPM SCM and SHP SMART FACTORY 4.0 Program (Make Things Easy)

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Adapting New Challenges in the New Normal era

Maintain 5P & Safety Condition at Workplace







Finding	Percentage Audit (%)	MAR	CONCLUSION
≤ 25	≥ 80%	5	Excellent
26 - 39	69% - 79%	4	Satisfactory - acceptable performance
40 - 53	58% - 68%	3	Average - Needs further improvement in certain area
54 - 67	57% - 47%	2	Not Satisfactory - Needs improvement in many areas
≥ 68	> 47%	1	Poor Performance and not acceptable



CHECKLIST AUDIT GM5P

Area / Dept

Hari/Tanggal : Selasa, 2 Feb 2021 : Beny & Lintang

No	Parameter Audit GM5P	Jumlah Pasal	Point Temuan					
1	Konstruksi dan Lokasi Bangunan	8	13					
2	Layout Ruangan dan Ruangan Area Kerja	13	0					
3	Kesesuaian Peralatan, Pembersihan, Perawatan	7	11					
4	Pemantauan pencegahan (Monitoring) kontaminasi silang	14	5					
5	Personal Hygiene	15	0					
6	Food defense, kewaspadaan dan terorisme biologis	4	1					
7	Kompetensi Personel	5	0					
8	Dokumentasi & Laporan Penggunaan	9	1					
9	Identitas & Labeling	11	1					
10	Pengendalian Operasional	4	2					
11	Penyimpanan dan Security	22	0					
12	12 Pengelolaan Limbah 15 0							
	Standard Nilai 127							
	Total Temuan 34							
	Percentage Total Score 73,23%							

Sub Area:

Increase OEE/OPE Performance

FI Project Monitoring

Menghilangkan problem seal di Filling

Menghilangkan Problem Flap atas miring

Menghilangkan Problem Xray Error

 Project Manager:
 Focus Improvement Pillar

 Project Start Date:
 02/02/2021

					03-feb 03
TASKS	PIC CHANNEL	DROCRESS	START	END	T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S
	PIC CHANNEL	PROGRESS	SIANI	END	W r 3 M W r 3
Project FI					
Flushing #	AHA QCC	20%	02-Feb-21	03-Mar-21	
Automation Langen Line D2	нва нва	10%	02-Feb-21	30-Oct-21	
Flushing * Line G	PAY QCC	100%	02-Feb-21	03-Mar-21	
Flushing *	ASA QCC	10%	02-Feb-21	03-Mar-21	
Project AM (Line A)					
Menurunkan waktu flushing kress	AHA QCC	10%	02-Feb-21	03-May-21	
Menurunkan waktu ganti auger	AHA QCC	10%	02-Feb-21	03-May-21	
Menghilangkan overload di mesin cartoning	AHA QCC	10%	02-Feb-21	03-May-21	
Menghilangkan stacker jam di cartoning	AHA A3	10%	02-Feb-21	30-Mar-21	
Menghilangkan masalah Sendok Telat Supply di mesin spooner	HZU SS	0%	02-Feb-21	30-Mar-21	
Menghilangkan masalah dus nyangkut di pusher feeder case packer	KAR SS	0%	02-Feb-21	30-Mar-21	
Menghilangkan masalah dus nyangkut di pusher insert	FBA SS	0%	02-Feb-21	30-Mar-21	
Menghilangkan terjadinya Product Not Correct di mesin Cartoning	AHA A3	0%	02-Feb-21	18-Mar-21	
Menghilangkan masalah print dus pecah	SS	0%	02-Feb-21	26-Mar-21	
Menghilangkan NMS RO tinggi di filling sachet	SS	0%	02-Feb-21	03-Apr-21	
Menghilangkan masalah Sensor open flap di mesin Cartoning	SS	0%	02-Feb-21	11-Apr-21	
Project AM (Line D2)					
Menanggulangi clearance	ASA QCC	10%	02-Feb-21	03-May-21	
Menurunkan waktu flushing bintang	ASA QCC	10%	02-Feb-21	05-May-21	
Menghilangkan Sachet Bocor Vertikal melipat	SS	0%	02-Feb-21	13-May-21	
Menghilangkan Sachet Bocor Vertikal melipat	SS	0%	02-Feb-21	21-May-21	
Menghilangkan Dus Rusak Produksi	SS	0%	02-Feb-21	29-May-21	
Menghilangkan Breakdown Kode Dus	SS	0%	02-Feb-21	06-Jun-21	
Menghilangkan Dus gagal vacum	SS	0%	02-Feb-21	14-Jun-21	



22-Jun-21

22-Jun-21

22-Jun-21

02-Feb-21

02-Feb-21

02-Feb-21



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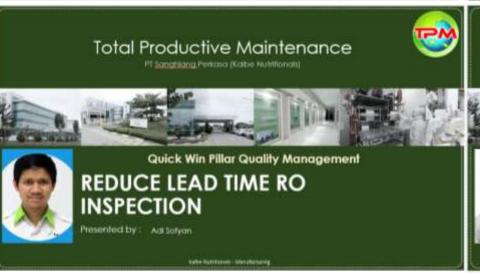


Enhance Cross Pillar Quick Win Project (Transfer Skill & Collaboration)











Adapting New Challenges in the New Normal era



Touchless Activity



Other Activity



Arigatōgozaimashita

ありがとうございました

Terima Kasih

Thank You



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