

1. Company

1.1. CPV Profile

1.1.1. History

C.P. Corporation (Charoen Pokphand Group) was established in 1921 in Bangkok, Thailand. Now it is a multi-industry manufacturing corporation and one of Thailand's strongest corporations in the field of industry - agriculture and food processing. C.P. Group started in Vietnam in 1988, has representative office in Ho Chi Minh City. In 1993 C.P Breeding Ltd., Co was established. Its Head office is in Industrial zone Bien Hoa 2, Dong Nai province. In 2011 it changed its name to C.P Vietnam Corporation (CPV).

Major manufacturing sectors include:

- Animal Feed
- Aqua Feed
- Breeding livestock and poultry
- Aquaculture
- Food processing
- Distribution and retail food

CPV has a closed multidisciplinary production system according to 4F model "FEED - FARM- FOOD - FOOD & Outlets" is a strength of CPV in producing high quality and safe food for consumers (Fig.1.1)



Fig.1.1: CPV's Integrated Food Production Chain

1.1.2. Logo CPV



Fig.1.2: Logo CPV

Lotus is a symbol of morality, effort devote the fair values for the community reason CP chose the lotus as the symbol representing values of the corporation.

1.1.3. CPV vision

“ Kitchen of the World ”

1.1.4. CPV Mission

C.P. invested in Vietnam with the mission:

1. Expanding the business of industrial and agricultural and closed foods.
2. Create growth potential towards world level.
3. Leading in quality and safe food.
4. Promote initiatives and increase efficiency.
5. Focus on developing human resources.
6. Socially and environmentally responsible.

1.1.5. CPV Values

C.P Corporation has built a working culture to encourage everyone to participate in work and make decisions based on trust, honesty, morality, and the desire to create value for society by Communicating six core values of the C.P Group, including:

1. Three benefits to sustainability: Benefits for the country, benefits for peoples and company benefits.
2. Speed and Quality.
3. Simplification.
4. Adapt to change.
5. Innovativeness.
6. Integrity, honesty, reciprocity.

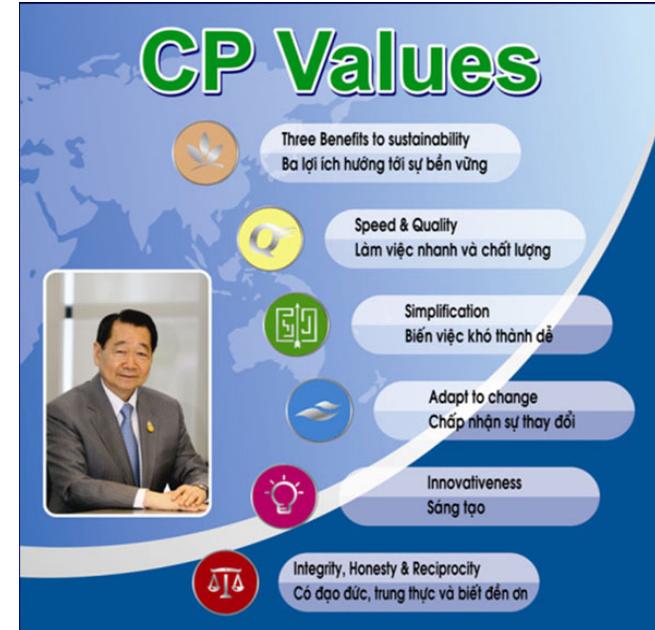


Fig.1.3: CPV Values

1.1.6. CPV Organization

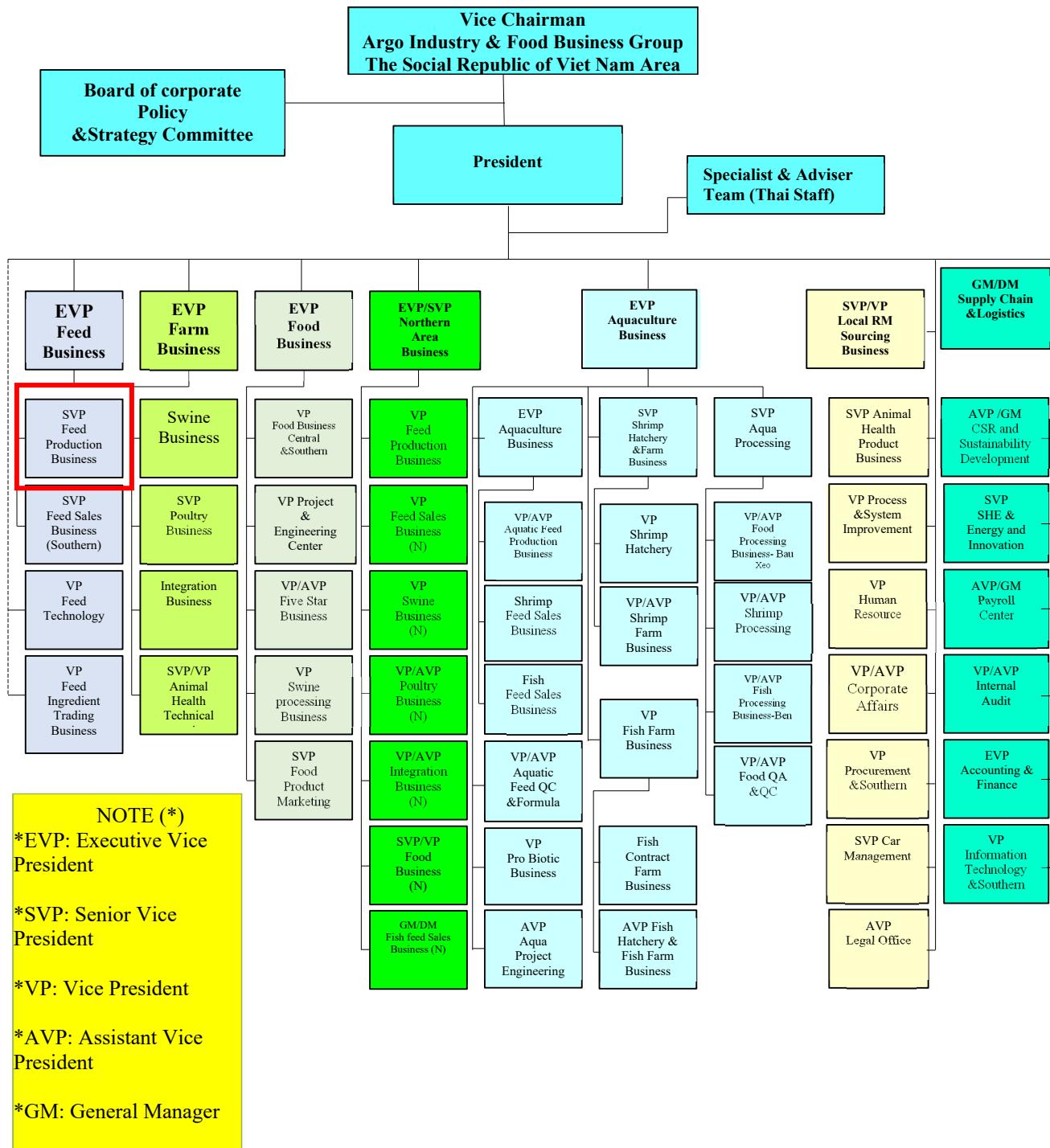


Fig.1.4: CPV Organization

1.2. Feed Business Unit Profile

1.2.1. Overview



Fig.1.5: Feed Business Unit

Animal feed production is the first in the integrated food production chain the 4F model of CP Vietnam. In 1993, CPV invest building the first animal feed factory in Vietnam at Bien Hoa Industrial Zone 2, Dong Nai Province.

Now, CPV is a pioneer and leader in production and sale of animal feed in Vietnam. The major products include cattle feed (pigs, beef cows, dairy cows), poultry feed (chicken feed, duck, quail), aqua feed (shrimp, fish). CPV produces various forms of feed, such as concentrate, mash and pellet appropriate to the characteristics and development stage of each animal type. Products are distributed to farming and dealer systems across the country.

CPV's feed and aquatic products are produced from strictly controlled raw materials and has a modern laboratory system to control the nutritional value and the residue of banned substances in the raw materials

1.2.2. Market share in Vietnam

In 2019, the market share of CPV accounted for 20%, and increased to 22% in 2023. The trend of CPV market share increase year by year and now we are the lead of the animal feed industry Vietnam

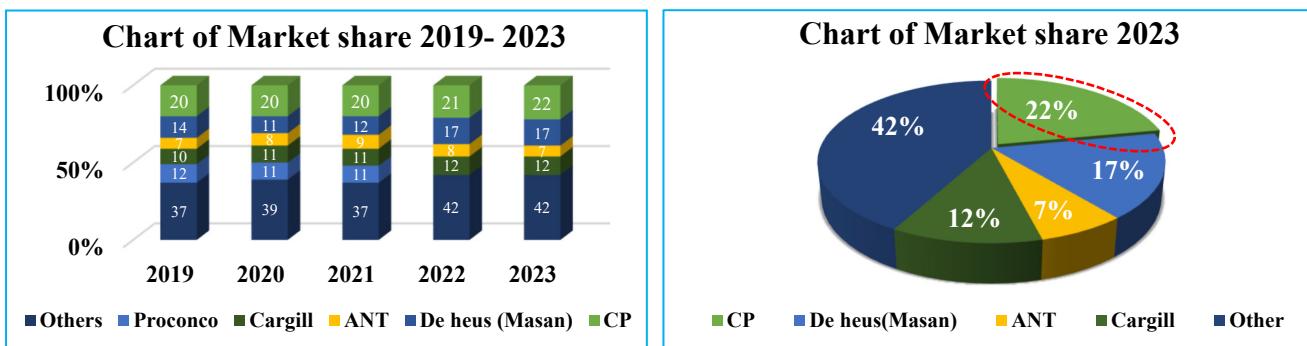


Fig.1.6: Market share of animal feed in Vietnam 2019-2023

1.2.3. CPV Feed Business Unit Vision

“Agro Feed Manufacturing Leader in Vietnam”

1.2.4. CPV Feed Business Unit Policy

Product good quality and safety feed with competitiveness cost; increase feed capacity to support growth of integrated business Feed-Farm-Food with high technology, environmentally friendly and sustainable.

1.2.5. Feed Business Unit Strategy

- Implement TPM (Total Productive Maintenance) to increase production efficiency, reduce production cost, and develop knowledge and skills for employees.
- Create standard systems (ISO and HACCP) to provide good quality, safety feed, customer satisfaction service and build safety-healthy workplace, friendly environment.
- Create a continuous improvement system (3i) to increase competitiveness.

1.2.6. Feed Business Unit Organization

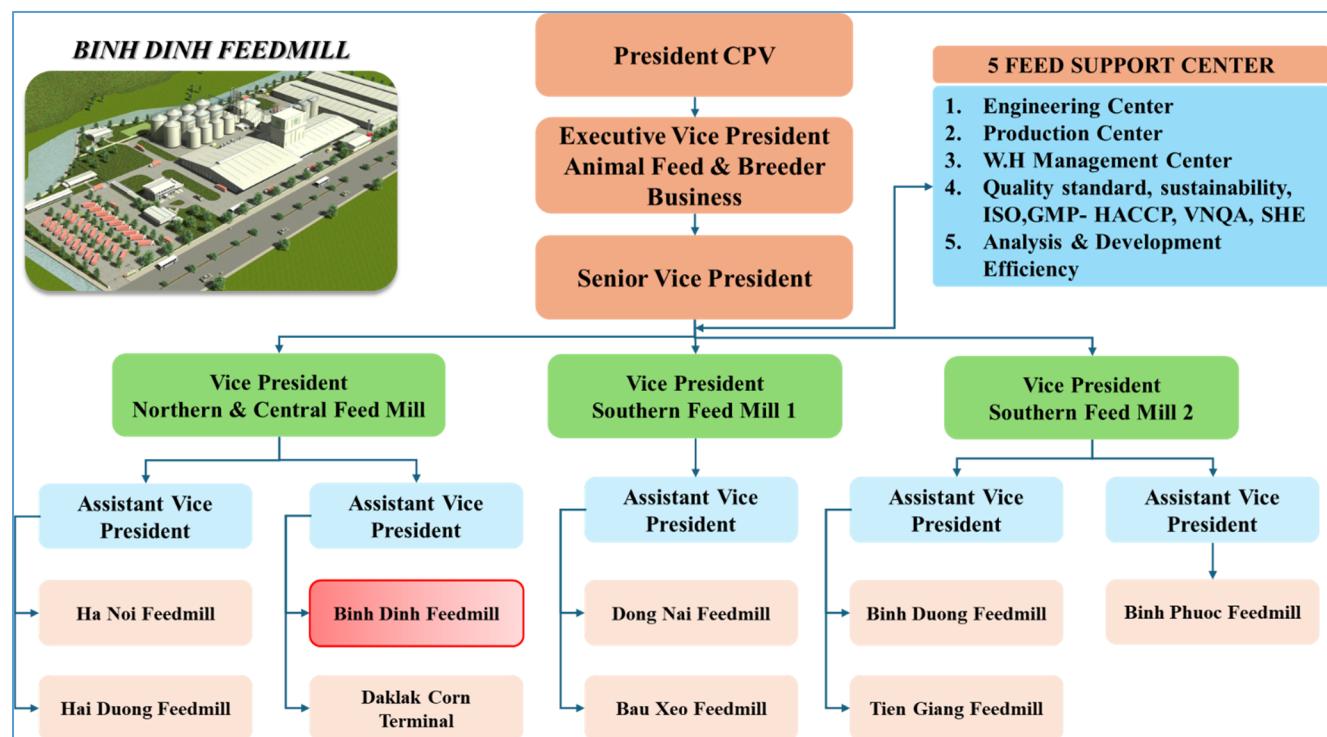
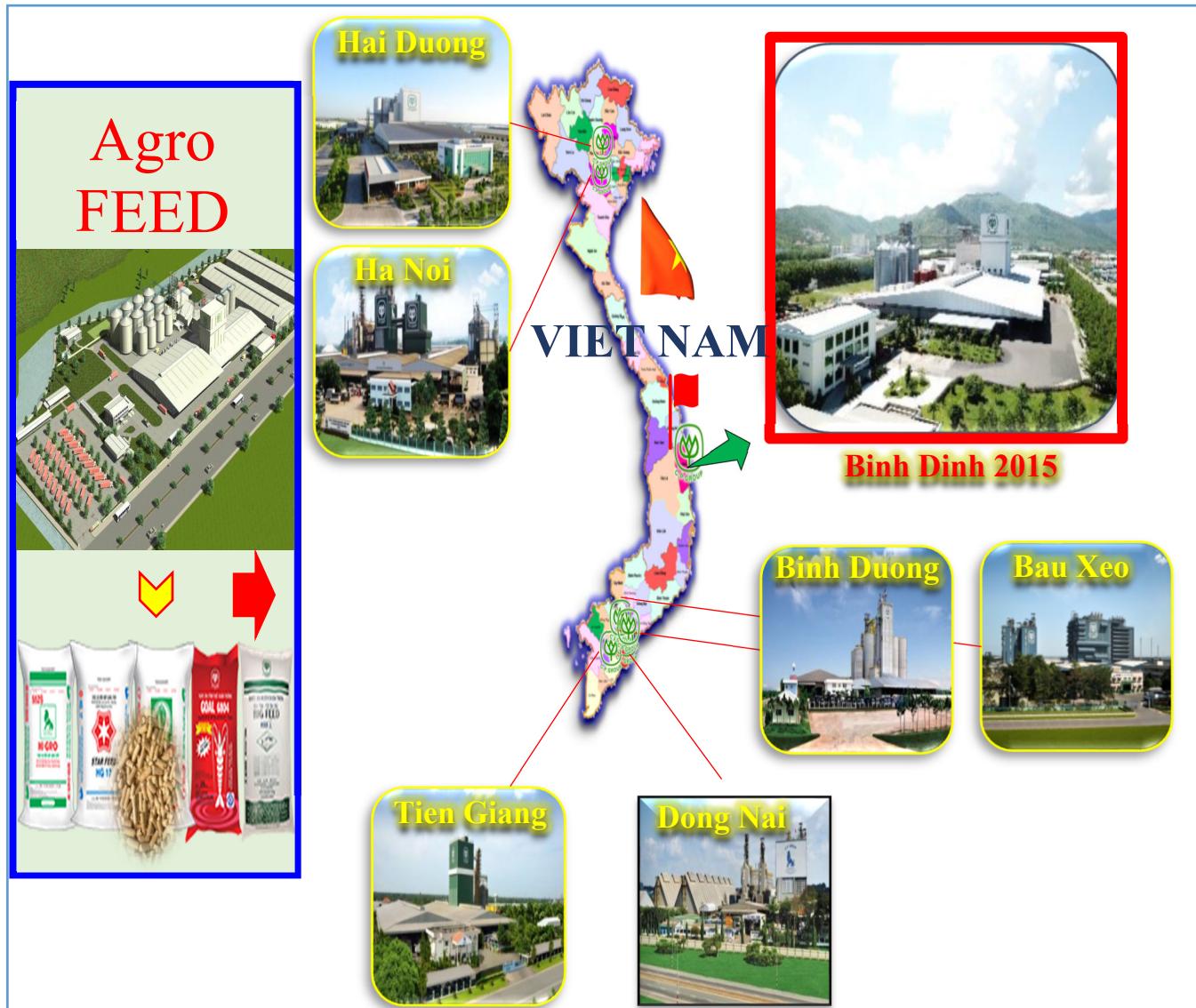


Fig.1.7: Feed Business Unit Organization

1.2.7. CPV Feed Mill in Vietnam.

C.P has 08 feed mills along the country, from the North to the South of Vietnam (Ha Noi, Hai Duong, Binh Dinh, Binh Duong, Dong Nai, Tien Giang, Bau Xeo and Binh Phuoc). With a total annual production capacity of 5,222 million tons / year. (Fig.1.8)



Start Operation	1993	1996	2001	2009	2013	2015	2016	2020	Total
Plant	Dong Nai	Ha Noi	Tien Giang	Binh Duong	Hai Duong	Binh Dinh	Bau Xeo	Binh Phuoc	
Symbol	DNI	HNI	TGG	BDG	HDG	BDH	BXO	BPC	
Capacity	554,400	720,000	540,000	720,000	720,000	720,000	500,000	1,032,000	5,506,400

Fig.1.8: CPV Feed mill location

1.3. Plant Profile

1.3.1. Overview

Company Name: C.P. Vietnam Corporation – Binh Dinh Feed Mill

Address: Lot A2.1, A2.2, A2.3 & A2.4, Nhon Hoa Industrial Zone, Nhon Hoa Ward, An Nhon Town, Binh Dinh Province, Viet Nam

Area: 140,609 m²

Construction: 2012

Start Operation: 2015

Product: Animal Feed

Brands: HIGRO, CP, STAR, NUVO, BELL

Production capacity: 720,000 Ton / year

Employees: 139

1.3.2. Main Product

Main product of the BDH Feed mill is animal feed. The most of them is Pig feed account 78.7%, besides are other feeds (Chicken, Duck, Quail and Cattle). About feed shape, most of them are pellets which accounts 99.3 %. Currently, we have two customer groups: own usage 77.6% and customer 22.4% with mainly packaging is bag, accounts 83.7%.

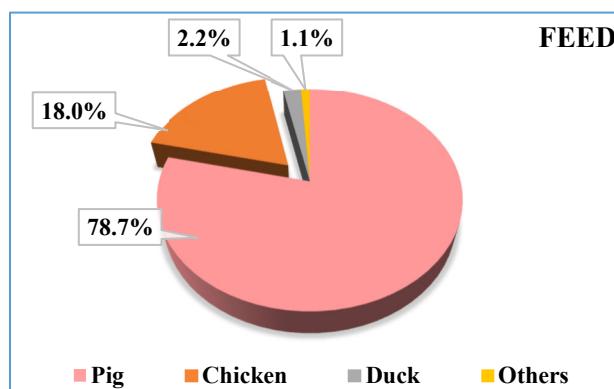


Fig 1.9.1: Feed

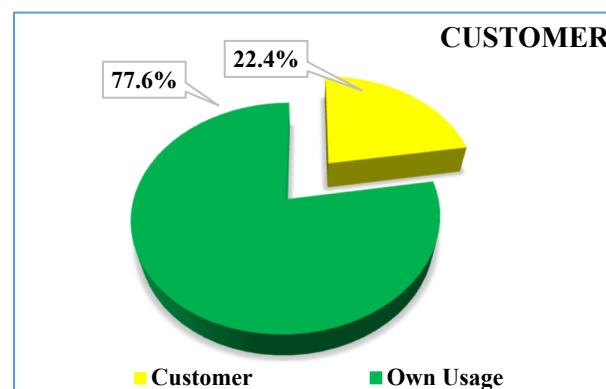


Fig 1.9.2: Customer

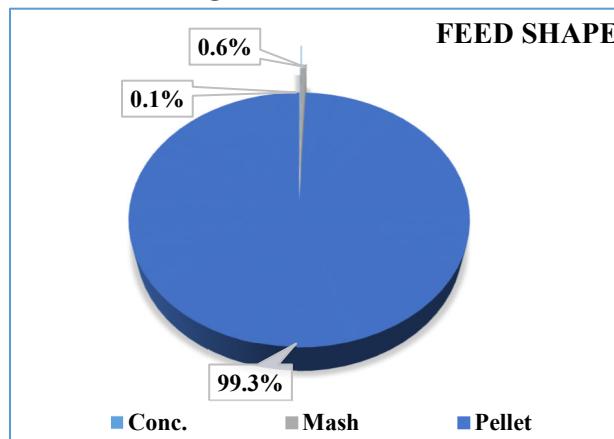


Fig 1.9.3: Feed Shape

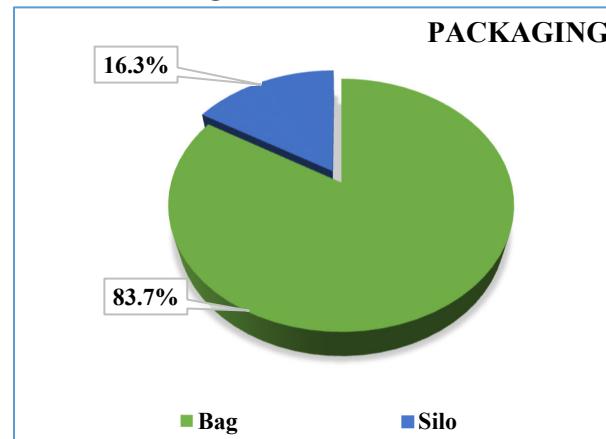


Fig 1.9.4: Packaging

Fig.1.9: Main Product

1.3.3. Production Process

The production system of the factory has 7 main processes including: receiving, storing, raw material preparing, mixing, pelletizing, packaging, delivery. In which the mixing stage is the most important because it determines the consistency of the feed as well as the high accuracy of nutrient content in the feed to suit each period of growing of each animal.

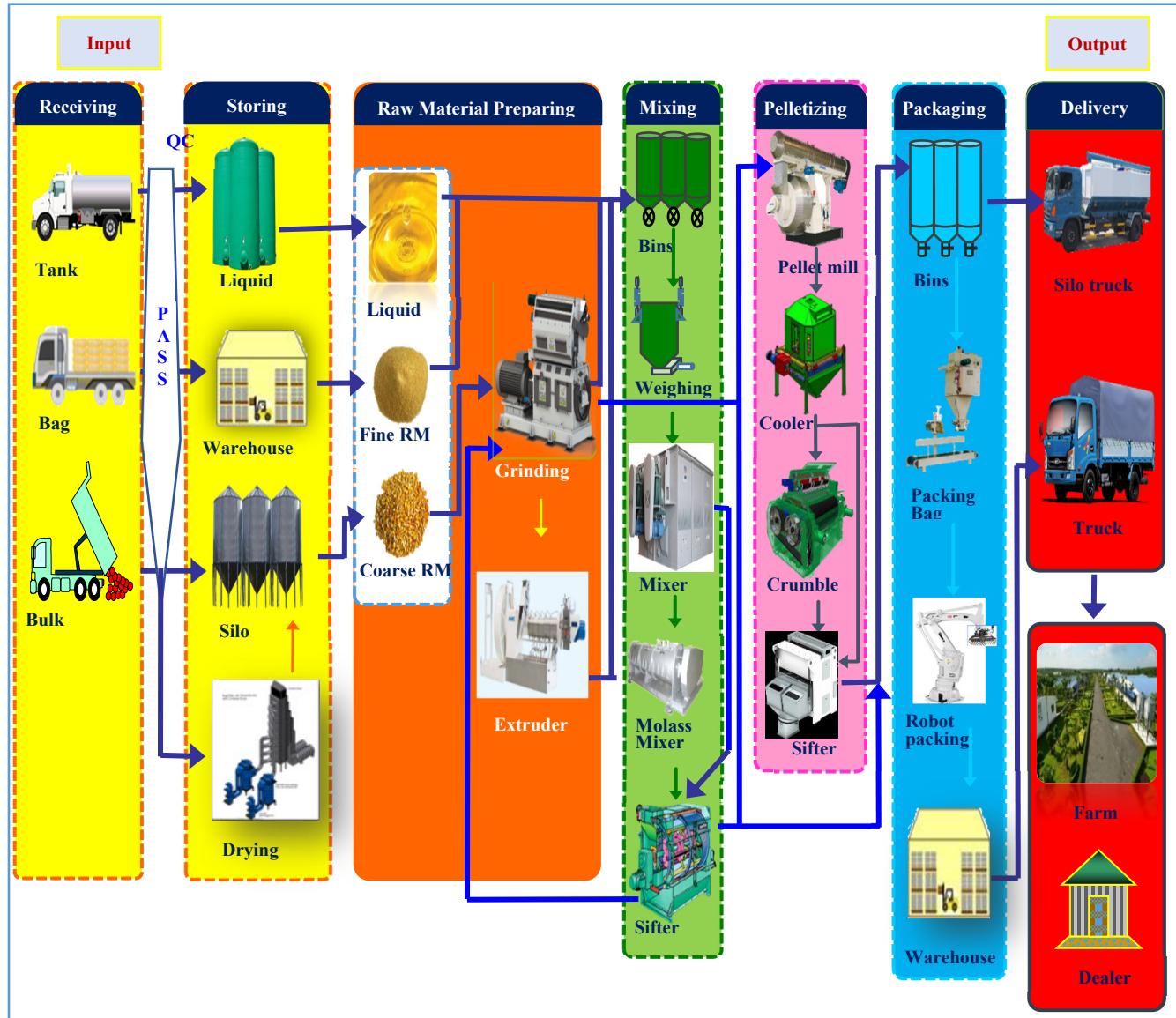


Fig.1.10: Production Process

1.3.4. Main Machine

To implement the production system through the 7 processes above, there are 1,540 machines in plant, among of them 96 machines rank A (6%), 518 machines rank B (34%), and 926 machines rank C (60%). Machines in Feed mill have been used for 9 years.

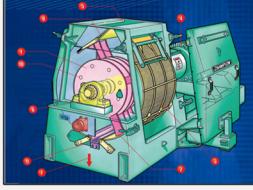
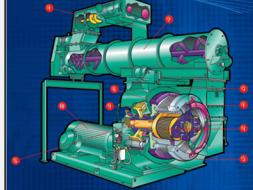
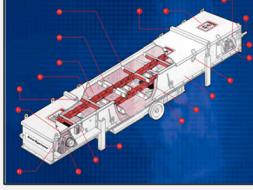
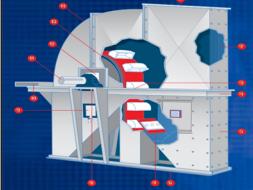
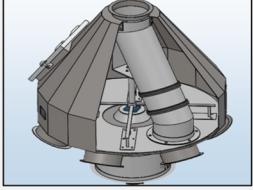
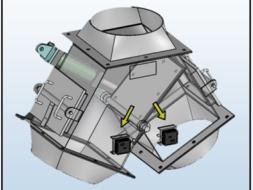
Rank	A	B	C
Classification criteria	Change the physical characteristic/ chemical of raw material/ feed	Transport raw material/ feed from the first to the second position	Support machine
Example	Hammer mill, Pellet mill, Extruder, Mixer...	Chain conveyor, bucket conveyor, screw conveyor...	Slide, Flapbox...
Images	 	 	 

Fig.1.11.1: Criteria ranking

Process	Line	Rank A	Rank B	Rank C
Receiving	Intake	6	67	219
Storing	Silo	2	172	213
Preparing	Hammer mill	13	16	44
	Extruder	3	12	27
Mixer	Mixing	24	29	146
Pelletizing	Pellet mill	20	61	145
Packing	Packing	6	91	0
Delivery	Belt	0	10	14
Support	Air compressure	4	4	16
	Boiler	16	8	11
	Generator	2	0	2
	Sampling house	0	3	1
	Fire pump	0	3	7
	Liquid	0	42	81
Total		96	518	926
		1540		

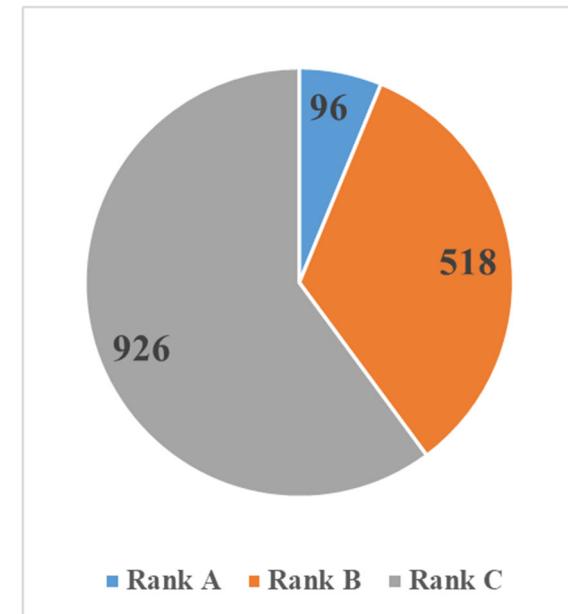


Fig.1.11.2: Main Machine

1.3.5. BDH Organization

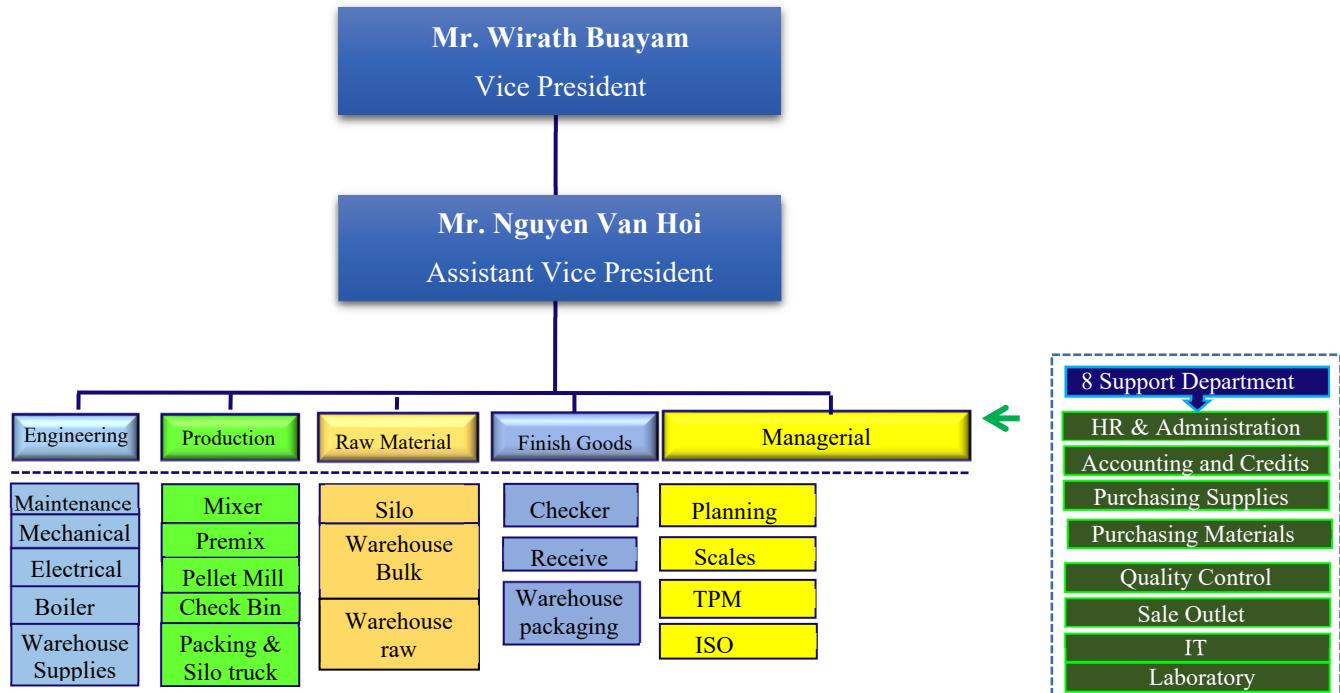


Fig.1.12: BDH Organization

1.3.6. Workforce

The personnel structure at Binh Dinh feed mill has a total of 139 employees, of which 109 employees are under the direct management of the plant manager (5 departments) and 30 employees of support departments (sales, purchasing, IT, human resources, QC, accounting) are not under the management of the plant manager. Currently, these 109 employees are involved in TPM activities at the Binh Dinh feed mill and implemented through the structure of small groups. There are 75% of employees between the ages of 31 and 45, and most employees hold diploma degrees or higher, which accounts for 74% (Fig.1.13).

EMPLOYEE CLASSIFIED BY DEPARTMENT							WORKING SCHEDULE				
DEPARTMENT	TOTAL	WORKER	STAFF	SECTION MANAGER	DEPT. MANAGER	GENERAL MANAGER	ASSISTANT VICE PRESIDENT	8h00:17h00	6h00-14h00	14h00-22h00	22h00-6h00
Production	34	1	29	3	1	-	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Managerial	21	5	12	3	-	-	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Finished Feed WH.	11	2	8	1	-	-	-	<input checked="" type="checkbox"/>			
Raw Material WH.	16	-	15	1	-	-	-	<input checked="" type="checkbox"/>			
Engineering	27	-	23	3	1	-	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sales,ACC, HRM, IT, QC, ...	30	-	15	10	5	-	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TOTAL	139	8	102	21	7	0	1				

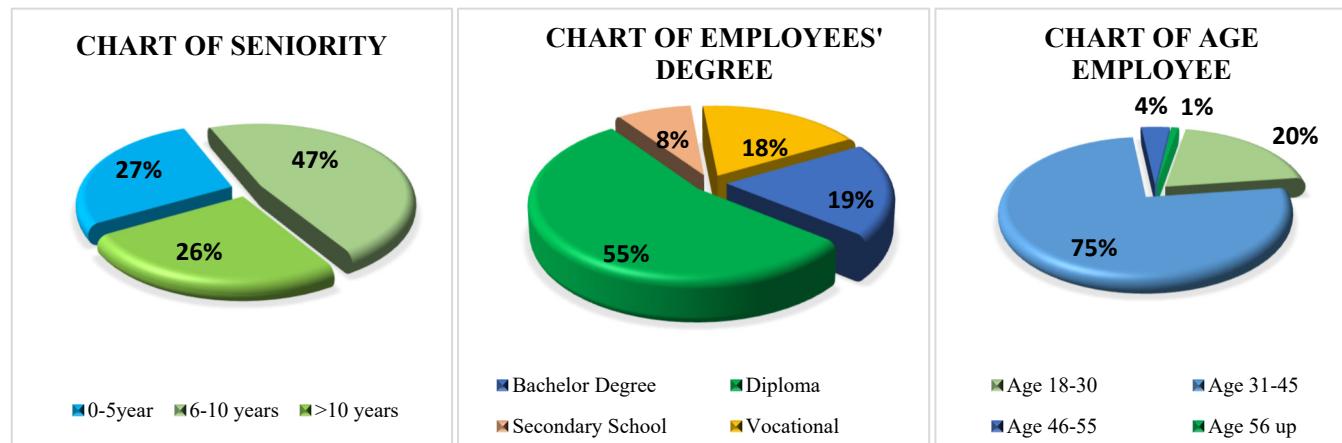


Fig.1.13: Workforce

2. Milestone on the Journey of Manufacturing Excellence

Binh Dinh Plant started production since 2015. From 2016 the factory achieved the system certifications such as ISO 9001, ISO 22000, HACCP, GMP, ISO 14001, ISO 50001, SHE Award and National Quality Gold Award (VNQA), GLOBALG.A.P.. However, these systems are not interested in maintenance, knowledge and skills improvement for both operators and technicians so that occur deteriorated condition, increase production costs, capacity has not met expectations. Recognizing this situation, Top manager has found many tools to develop employees and improve efficiency. After a while, top managers realized that TPM- JIPM is the best tool to apply. Therefore, in 2017 the top managers decided to implement TPM -JIPM in Binh Dinh Plant with the main objectives:

1. Increase productivity
2. Improve product quality
3. Reduce production cost
4. Enhance service quality
5. Improve safety working place, ensure the health and environmental friendliness
6. Create internal training system

Moreover, top managers always follow up and monitor the progress of TPM system, realizing the TPM activities of Binh Dinh plant gets initially successful so deciding to participate in the TPM Excellence Award - Category A 2021.

After conducting 2 stages assessment from JIPM assessor, we passed and won the TPM Excellence Award - Category A. From 2022, we have replicated TPM implementing to phase 2, focusing on expanding collection and solving losses in the supply chain. After 3 years of implementing TPM phase 2, we have achieved many good results, so top managers have agreed for Binh Dinh Plant to apply for the Award for Excellence in Consistent TPM Commitment in 2025.



3. Benefits Achieved

Tangible result

1. Zero Accident from June 2019
2. Production volume increases from 1,984 tons per day to 2,271 tons per day
3. Quality rate increases from 99.940% to 99.967%
4. Cost savings 381,000 USD/year
5. Rate of delivery lead time in time increases from 79.40% to 86.60%
6. Tag: 77,498; OPL (One Point Lesson): 9,377; Kaizen: 9,804

(Benchmark: 2021 – Present: 2024 YTD-Oct)

Intangible result

1. Employees morale is improved, self-conscious and more relaxed
2. Working environment is funny, harmonious and cohesive
3. Employees and customers believe in the company

4. Key of our Manufacturing Excellence

All consent of staff in factory combines with young human resources who they have level, research. They can apply knowledge of the system for the job. Besides that, the support of leadership about spirit, human resources, cost that become more successful.