

## 1. Company, Plant/Factory profile

### 1.1 Business Model

CPF operates integrated agro-industrial and food business in Thailand, including swine, broiler, layer, duck, shrimp and fish. The businesses are classified into 3 categories, namely Feed, Farm and Food. CPF also operates food retail outlets. The Integrated food process involves advanced production technology, qualified international standard chemical-free production, safe with hygiene, while being environmentally friendly, and systematically traceable throughout the whole food chain.

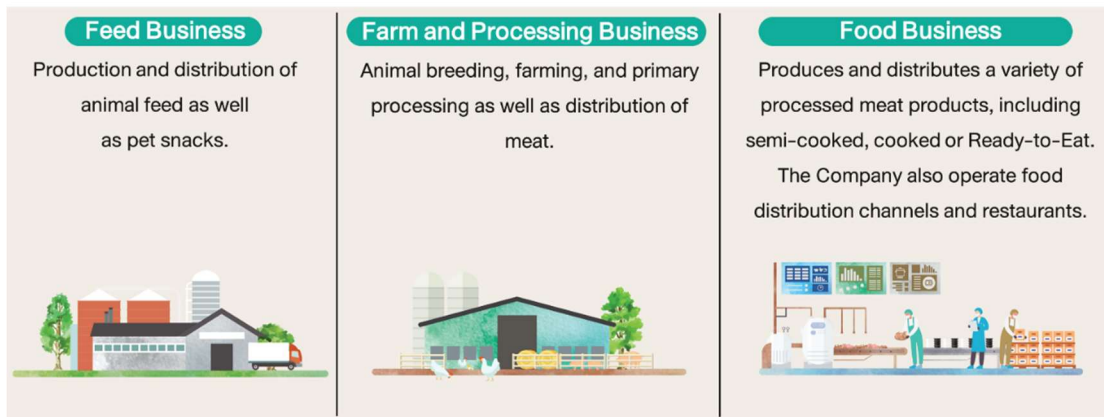


Fig 1.1 CPF’s businesses are categorized

### 1.2 CPF Logo



The meaning of CPF Logo; Blooming Lotus with Spike of rice. Lotus is a symbol of morality so Blooming lotus represents all achievement of all enlightenment while Spike of rice is a symbol of plentiful.

### 1.3 Vision & Mission

#### Vision : “Kitchen of the World”

To deliver top quality products to consumers in every corner of the world.

#### Mission :

The Company operates vertically integrated agro-industrial and food businesses to offer top quality products in terms of nutrition, taste, food safety, and traceability. The Company is determined to build business growth in strategic locations with the focus to maintain world-class, modern production process as well as efficient and ecofriendly consumption of natural resources in order to enhance its competencies and competitive edge on an international level. We take into account the interests of all stakeholders to ensure sustainable growth, while being able to continuously generate appropriate returns to shareholders.



### 1.4 CPF Feed business unit

CPF is a pioneer and leader in the production and sale of animal feed in Thailand. The major products include swine feed, chicken feed, duck feed, and cattle feed etc. CPF produces various form of

feed, such as concentrate, mash and pellet feed, with feed-mill plants located in every region throughout Thailand. The Company sells to small independent farmers and large farms, both directly and via appointed agents or distributors across the country. Additionally, CPF also manufactures animal feed for its own farms.

CPF's feed formulas are produced with adherence to the nutrition requirements specified for each animal type and its stage of growth. All production processes are computer controlled to ensure the uniformity of quality and compliance with exacting standards. As a result, CPF is able to produce feed of a high quality and a low feed conversion ratio to help farmers reduce their farming costs. These feeds are distributed under Company-owned brands such as CP, Hyprovite, Hi-Gro and Star Feed; Novo, Safe Feed and Erawan; Hogtonal, C.F. and Anvipro; Marine, Hi-Grade, Turbo and Hilac, Blanca, Stargate, Safe Fo and Safe Fish.

CPF places significant importance on innovations for technology improvement, with the aim of developing quality and efficiency in the production processes to obtain safe products of good quality while maintaining its cost competitiveness in the industry. In process-control at every stage of the production, as well as raw material control, are implemented in order to ensure quality. Our feed-mill plants are equipped with a laboratory and facilities for the quality control of raw materials prior to them entering the manufacturing process. Furthermore, CPF has a team of technical experts that assists the customers and guides them toward successful farming by providing technical knowledge regarding animal nutrition, which can be adapted for each location. This knowledge is provided through seminars and academic service centers. Our technical experts are available for consultation and to give advice on animal husbandry. Useful information on animal husbandry is disseminated regularly through printed materials and electronic media, via the internet.

### 1.5 CPF Feed business unit vision

"World Leader in Integrated and Sustainable Feed Business"

### 1.6 CPF Feed business unit policy

1. Sustainable Growth
  - Product quality.
  - CP group synergy.
  - Customers development and build customer growth.
2. Aiming for Excellence
  - Increase work efficiency
  - Supply chain cost management.
  - Digital organization.
3. Building Solid Foundation
  - Develop people to be good and talented.
  - Organization is a good member of the country.

Total 155 Feed mill In 17 Country Worldwide. There are 14 feed mills in Thailand nationwide, Sriracha Feedmill (SRF) located at Sriracha district, Chonburi province .

Established : April 1, 1979, (the 3<sup>th</sup> of CPF Feed mill)  
Start operation : February 23, 1981  
Product : Broiler Feed and Duck Feed  
Capacity : 518,000 Ton/Years  
Customer : CPF Farms and CPF Contract Farms)

SRF is the 3rd feed mill of Feed Business. SRF had imported the new machine and new technology to produce the good poultry feeds to CPF farm since 1981. SRF is the upstream of the Poultry integrate supply chain. Downstream of the supply chain is human food for sales to overseas.

### 1.8 SRF vision

“Feed Mill 4.0 Process Excellence”

SRF operates with 95 employees and 46 contractors. SRF has continually developed its production processes in line with international standards. Management systems widely used on the international level that have been adopted by the company include quality management system such as ISO9001, GMP&HACCP, ISO14001, CPF-SHE MS etc.

### 1.9 SRF Production Process

SRF have 5 processes to produce the poultry feed. The production process as show in figure 1.2 is composed of raw material storage process, grinding process, mixing process, pelleting process and packing process.

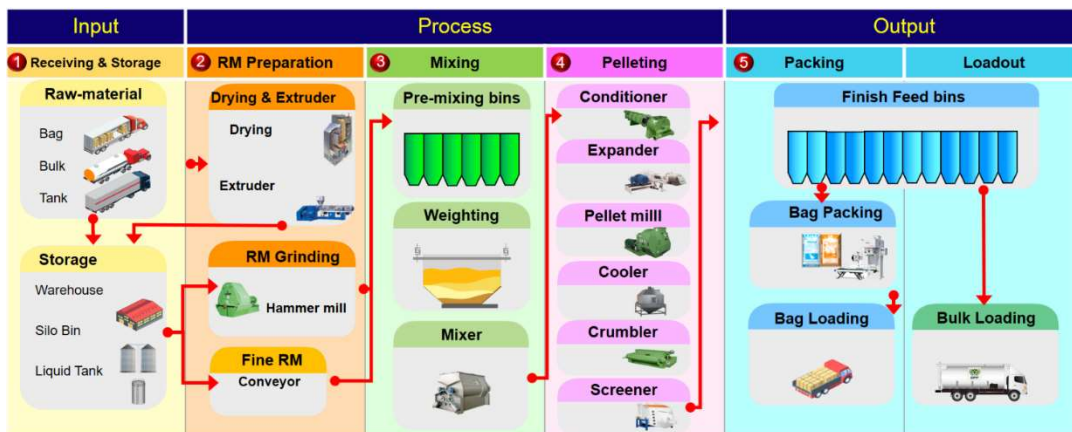


Fig. 1.2 Production Process in Sriracha feed mill.

### 1.10 Company products

SRF has 2 types of products included broiler feed pellets 95% and duck feed pellets 5 % under Hyprovite brand. SRF serve the feeds to CPF farm only. We produce poultry feed by bulk 97.4% and by bag 2.6%

## 2. Milestone on the Journey of Manufacturing Excellence

In the year before 2011, the self-maintenance activities in SRF solely focused on cleaning and inspections, an engagement awareness had not been created. Consequently, the staffs did not know the importance of the activities and their relevant to TPM activities. Moreover, knowledge of the machines, including maintenance skills were not studied effectively, resulting in improper self-maintenance. Such the activity was resulting in unsuccessful implementation.

Thus, in 2012 SRF announced a new policy and introduced TPM-JIPM application. This aimed for the skill development of staffs and increase their ability on improvement skills in order to eliminating loss and create a system to prevent the problem recurring.

In committing such actions, TPM system under the JIPM (Japan Institute of Plant Maintenance) method is applied as management and administration tools, emphasizing on the following topics:

1. Loss elimination throughout the organization
2. Staffs’ skills and capability development at every level.
3. Operation methods and machines maintenance is more effective.

4. Improvement for Zero Failure, Zero Defect, and Zero Accident target.
5. Improve working places and operation areas in best conditions suitable for working and all other related activities.

And in 2016, SRF passed TPM assessment from TPM-JIPM and received the Award for TPM Excellence Award Category A. SRF has maintained and enhanced the results achieved at the time the Award for TPM Excellence. Then SRF has established measures for their maintenance and continuation, to raise the level to the Special Award for TPM Achievement.

### 3. Benefits Achieved

Since TPM activities have been implemented, there are noticeable changes of employees' behavior. The objective of the collaborative work is clear. Employees have embraced the change and prompt for learning. Also, the analysis process is more systematic. The employees also have been confident on taking part in the work improvement and autonomous maintenance, which leads to the trust among them and creates teamwork. As a result, the problems in factory, which are breakdown, defect, accident and losses that affect the production cost have been declined. All these are the results of TPM adoption as management tool, which create the continuous improvement along with the employee development and organization growth.

### 4. TPM Award Assessment Achievement Sheet

#### *Tangible results*

Category	Index	Unit	Benchmark (2016)	Actual Status 2023
S	Number of work-related accidents requiring days off work	Cases/ year	0	0
	Number of work-related accidents not requiring days off work	Cases/ year	0	0
P	Productivity for main products	Ton/Operator/hours	551	625
	OEE Mixer	%	81	85
	Availability Mixer	%	88	90
	Performance Rate Mixer	%	94	95
	Quality Products Rate Mixer	%	99	100
	Number of breakdowns	Breakdowns/ year	1	0
	MTBF	Hour	4504.37	4708
Q	MTTR	Hour	2.8	0
	Number of customer complaints	Number/year	0	0
	In-line defect rate, scrap	%	0.01	0
C	In-line defect rate, scrap and rework	%	0.078	0.000253
	Product Cost	% Decrease	100	141
D	Customer Leadtime	Minute	2160	741
	On-time Delivery	%	90	93.7
S	Safety index	Accidents per 1,000,000 operator hours	0	0
M	Number of Employee Suggestions	Number/year	15,173	33,178
	Number of innovators	Person (Acc.)	8	34

#### *Intangible result*

- Skill of systematic thinking and problem solving have been improved.
- Improve learning organization, resulted from cooperative culture.
- Workplace has been more desirable for working and safety.



## 5. Key of our Manufacturing Excellence

The cooperative culture and ownership of employee, together with strong leadership in every level of management team that supported their teams in term of workforce, time, budget, all necessary resources. Moreover, continues learning and development system is also another key, which enhance staffs to be more capable on working.