TEAM EXCELLENCE COMPETITION
HOLIDAY INN SUVA
27th October 2022

THEME: INNOVATION FOR HIGHER PRODUCTIVITY

TEAM JIXU

Future Farms Pte Limited t/a Rooster Poultry

If we are to maintain Excellence we must Continue to create it!

TEAM JIXU MEMBERS

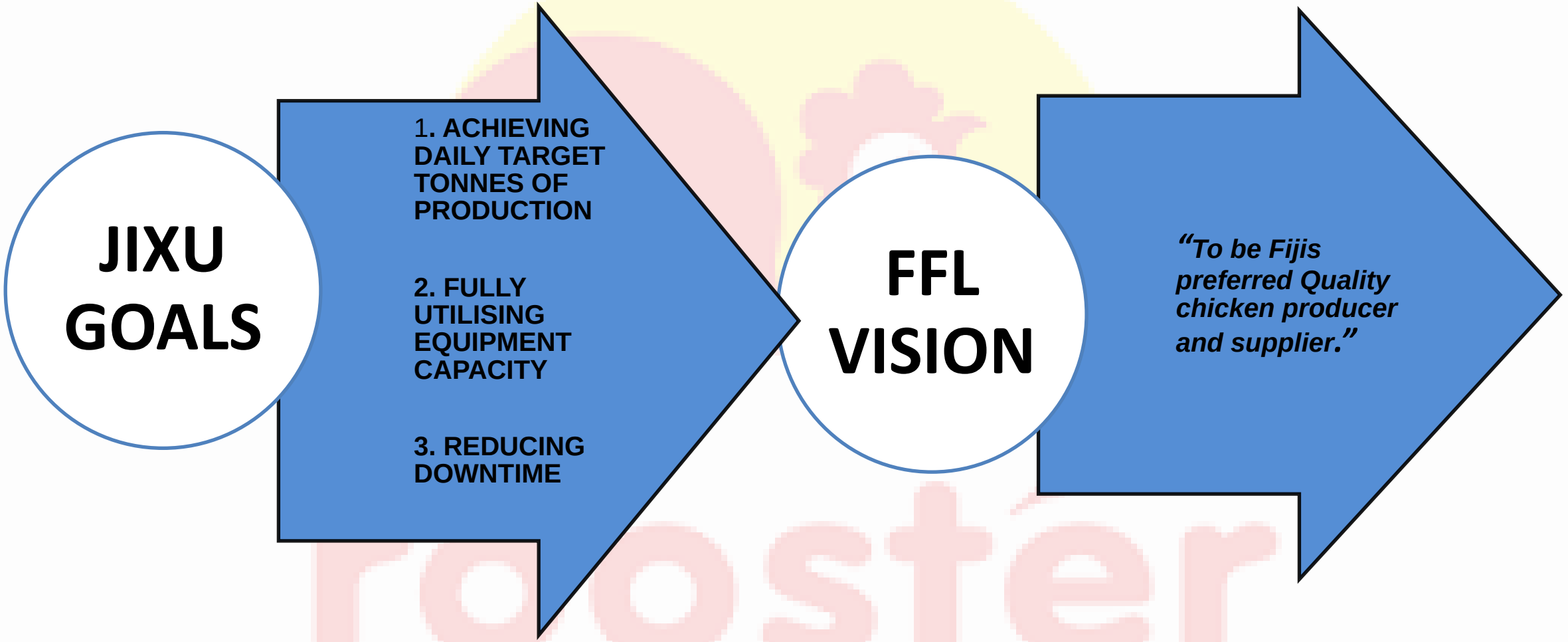
TEAM MANAGER: LIVAI MOCELUTU

TEAM LEADER: PAULA ROKOSUKA

TEAM FACILITATOR: SANITA RAWASOI

TEAM MEMBERS: MELI WAVU,MAIKELI TAUYAVU, RUPENI SILIVA,RATU MELI,LAVENIA RANADI

ALIGNMENT OF PROJECT GOALS TO ORGANISATION VISION

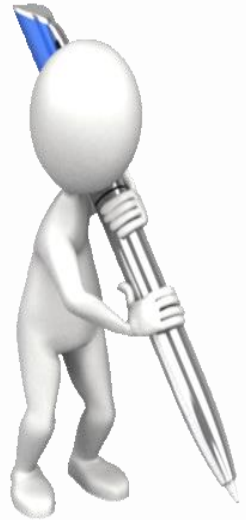


GANTT CHART JIXU JOURNEY

PDCA				
	PROJECT TITLE	REDUCING PRODUCTION COST WITH DOWNTIME AND MAXIMIZING STORAGE CAPACITY		
	COMPANY NAME:	FUTURE FARMS LIMITED t/a ROOSTER POULTRY		
	PROJECT START/YEAR	2021		
	PROJECT TASK	PROJECT PROGRESS	START	END
P	PROJECT SELECTION	Project target setting Identifying Problems, Challenges and Opportunities Project selection Identifying Customers Needs and Expectations	August 2021	
D	PROJECT IMPLEMENTATION	Implementation using problem solving tools. Stakeholder engagement.	September 21	May 22
C	PROJECT ANALYSIS	Project Results Productivity Measures Trends /Benchmark Comparisons Value Added from Final solution Stakeholders Engagement Tangible and Intangible Results Spin offs of Project for other opportunities Impact on organizational goals and opportunities	Sept21 – May 22	
A	ACT & STANDARDIZATION	Sustainability of Project Ideas Corporate Social Responsibilities Continual Improvement and Future Plans	ACT/STANDARDISE ,REVIEW AND IMPLEMENT NEW PROJECT IDEAS May 22 and our Journey continues.	

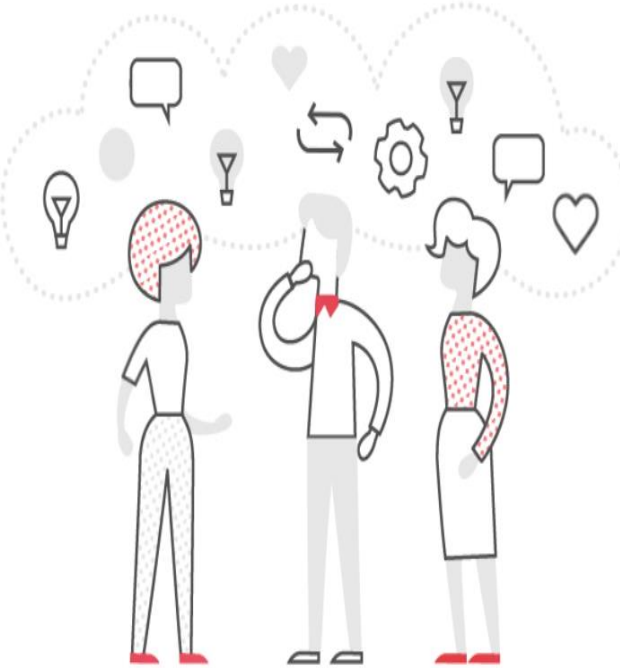
PLAN STAGE

- Project target setting
- Identifying Problems, Challenges and Opportunities
- Project selection
- Identifying Customers Needs and Expectations

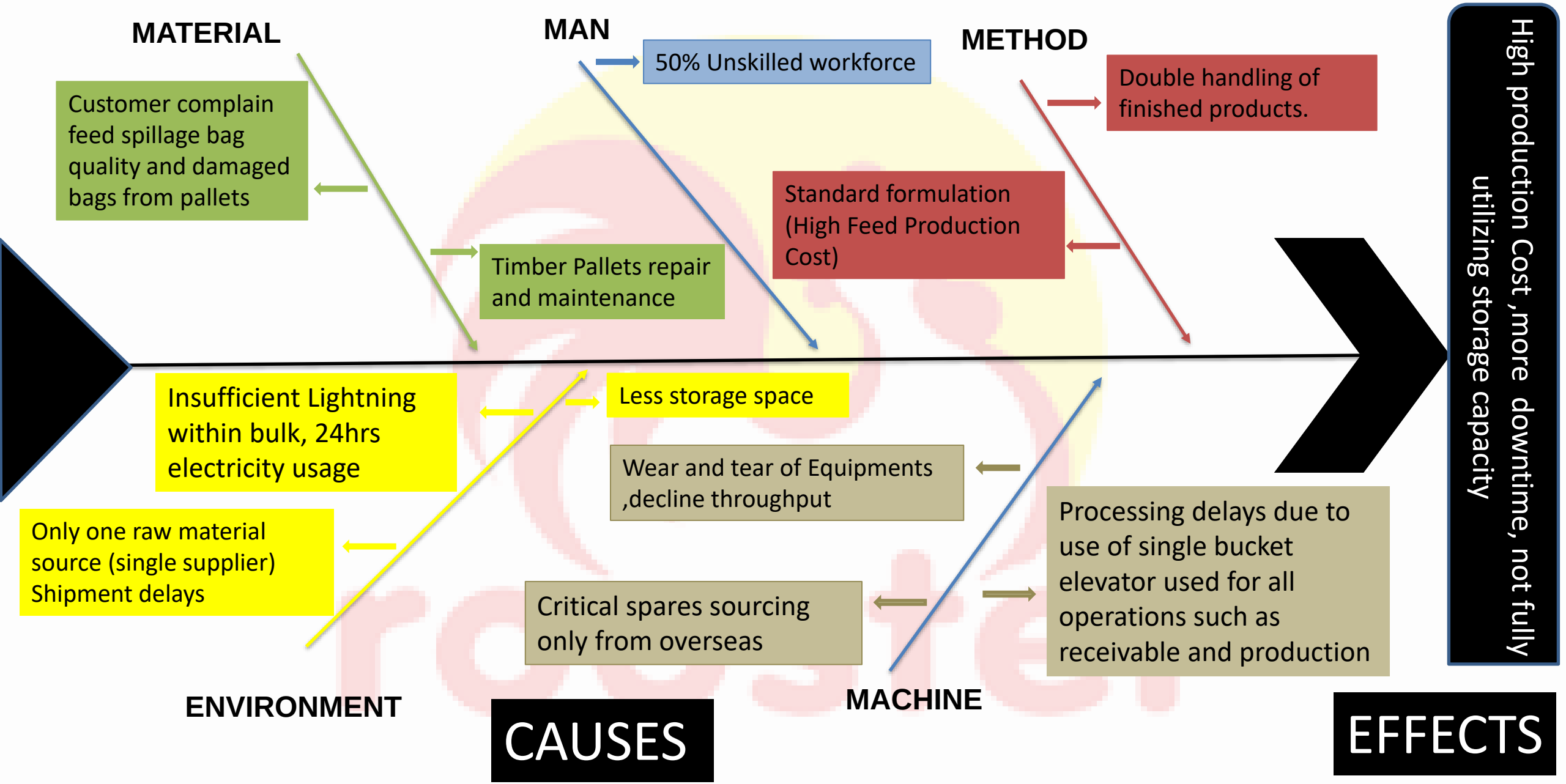


BRAINSTORMING CHALLENGERS ,PROBLEMS AND OPPORTUNITIES FOR IMPROVEMENTS

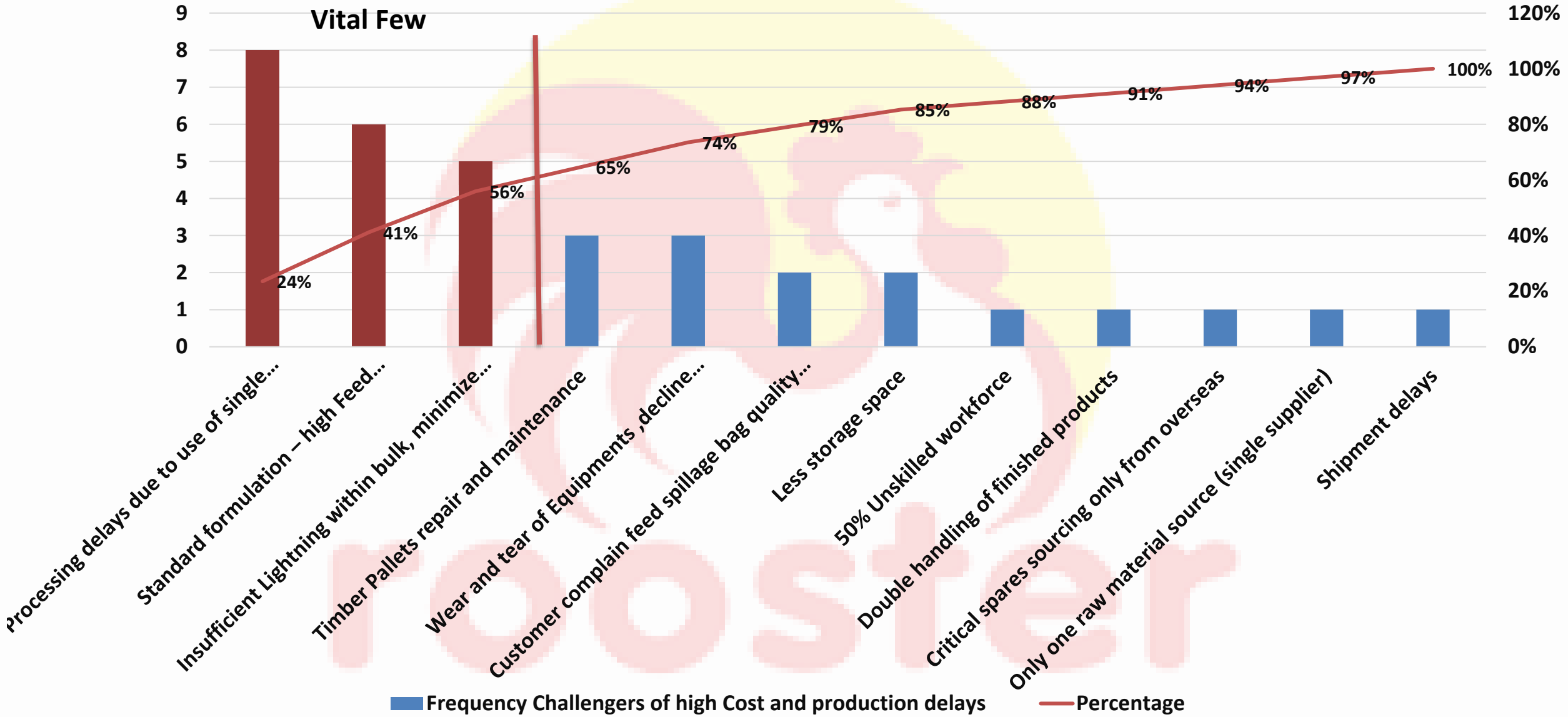
- Processing delays due to use of single bucket elevator used for all operations such as receivable and production
- Wear and tear of Equipments ,decline throughput
- Critical spares sourcing only from overseas
- Standard formulation (High Feed Production Cost)
- Double handling of finished products
- Timber Pallets repair and maintenance
- Customer complain feed spillage bag quality and damaged bags from pallets
- Insufficient Lightning within bulk, 24hrs electricity usage
- Less storage space
- Only one raw material source (single supplier)
- Shipment delays
- 50% Unskilled workforce



CAUSE AND EFFECT OF PROBLEMS & CHALLENGERS



PARETO ANALYSIS FOR PROBLEMS AND CHALLENGERS



BRAINSTORMING SOLUTIONS TO PROBLEMS AND CHALLENGES

20% PROBLEMS AND CHALLENGERS	BRAINSTORMING SOLUTIONS
Processing delays due to use of single bucket elevator used for all operations such as receivable and production	Installation of extra Elevator to minimize downtime
Insufficient Lightning within bulk, minimize movement causing delays with delivery stoppage	Install Sunroof to help reduce electricity usage during the day and maximize sunlight entering the bulks to help reduce delays during processing
Standard formulation – high Feed Production Cost	Adjust Feed Formulation to Reduce Production Cost

JIXU PROJECT SELECTION - DECISION MATRIX

PROJECT IDEAS	CRITERIA WEIGHING	SCORES				
		COST OF IMPLEMENTATION	SKILLS AVAILABLE TO SOLVE PROBLEM	EFFECTIVENESS OF SOLUTION	BENEFIT OF OUTCOME	
		2	1	3	4	
1.	Installation of Elevator to minimize downtime	2(4)	5(5)	5(15)	5(20)	**44**
2.	Install Sunroof to help reduce electricity usage and allows maximize sunlight to help reduce delays during processing	4(8)	5(5)	4(12)	5(20)	**35**
3.	Adjust Feed Formulation to Reduce Production Cost	2(4)	3(3)	4(12)	5(20)	**39**

Total score =Problem rating against Criteria (1-5) x weight of criteria

OPPORTUNITY THROUGH PROJECT & CUSTOMER NEEDS

RANK	PROJECT IDEA	OPPORTUNITY THROUGH PROJECT	CUSTOMER NEEDS & EXPECTATIONS
1.	Installation of Elevator to minimize downtime	Installing a separate bucket elevator reduces downtime, maximising equipment capacities and staff productivity improves.	• CUSTOMER REQUIREMENTS > 60 Tons /Daily • OFFSET PRODUCTION >20 Tons/Daily
2.	Install Sunroof to help reduce electricity usage which maximize sunlight into the help warehouse that's help reduce delays during processing.	Installation of sunroof reduces the usage of electricity by maximising sunlight into the storage space for adequate lighting.	
3.	Adjust feed formulation to reduce Production Cost	New formulations if trialled will reduce cost to production since less raw materials will be considered.	

JIXU PROJECT TITLE 2021- 2022

"REDUCING PRODUCTION COST WITH DOWNTIME, MAXIMIZING EQUIPMENT AND STORAGE CAPACITY"

JIXU TARGET SETTING

- ✓ ACHIEVE 80 TONNES OF PRODUCTION DAILY
- ✓FULLY UTILISE EQUIPMENT CAPACITY BY 90%
- ✓REDUCE DOWNTIME BY 10%

DO STAGE

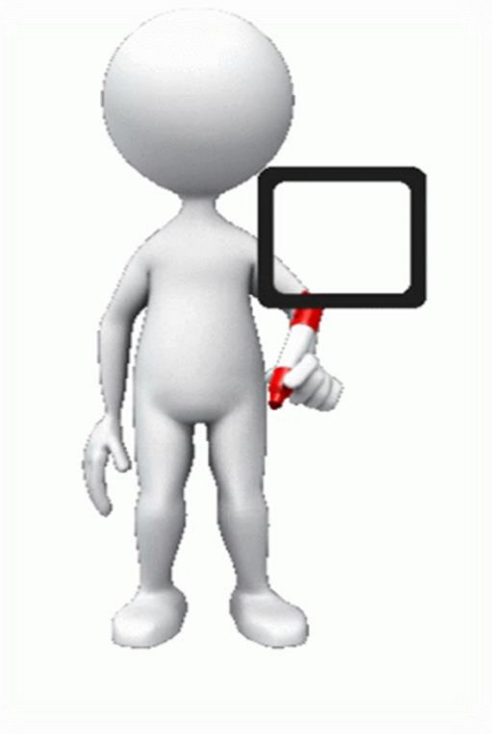
- Implementation using problem solving tools.
- Stakeholder engagement.

IMPLEMENTATION OF PROJECT IDEAS

PROJECT IDEA	PROJECT SITE	PROJECT IMPLENTATION DURATION	
1. Installing a separate bucket elevator reduces downtime, maximising equipment capacities and staff productivity improves.	Feedmill Production site	15-18 APRL 22	
2. Installation of sunroof reduces the usage of electricity by maximising sunlight into the storage space for adequate lighting.	Feedmill Bulk 1	25-27 NOV 21	
3. We trialled new formulations against the suppliers requirements and performance was monitored		April 21- The project is still a work in progress	Trialled at **Sheds 1, 2, 4, 5 , 12, 15**

CHECK STAGE

- Project Results
- Productivity Measures
- Trends /Benchmark Comparisons
- Value Added from Final solution
- Stakeholders Engagement
- Tangible and Intangible Results
- Spin offs of Project for other opportunities
- Impact on organizational goals and opportunities



PROJECT RESULTS OF FINAL SELECTED SOLUTIONS

INSTALLATION OF BUCKET ELEVATOR	
Time - 40min stop on every containers discharged	Total Container /Day = 4 Containers / 2*8 hours shift
40 min packing stop x 4 containers = 160min 160 min /60 = 2.66hr/day	
Packing Throughput = 5bags /Minutes. 160min x 5 bags = 800bags.	
Weekly bags = 4800bags	
Yearly Bags = 249600bags	

SUNROOF INSTALLATION

Project Cost	Labour Cost	Total Cost	Savings Details	Saving /$
$1380	$500	$1,880	$0.33/units * 500Units = $165	$165/2 = $82.50

Project installation of sunroof was designed to help reduce the amount of power used in day processes. This only saves the amount power daily, but more light in the bulk helps staffs in the housekeeping or maintaining of cleanliness within the bulk.

FORMULATING FEED SPECS PROJECT

SHED #	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 4	TOTAL
1	$2,501.89	$1,086.11	$1,285.43	$1,452.33	$6,325.76
2	$3,086.21	$1,711.25	$1,007.24	$1,762.19	$7,566.89
4	$998.32	$1,874.12	$1,198.47	$1,596.77	$5,667.68
5	$1,642.31	$1,550.10	$2,100.54	$1,123.00	$6,415.95
12	$2,002.36	$897.36	$2,774.22	$1,225.10	$6,899.04
15	$1,495.66	$1,100.54	$1,569.18	$908.53	$5,073.91
TOTAL SAVINGS					**$37,949.23**

TOTAL PLACEMENT IN 4 TRIALS	**372000**
$AVERAGE\ SAVINGS\ PER\ BIRD = \frac{TOTAL\ SAVINGS}{TOTAL\ PLACEMENT}$	
AVERAGE SAVINGS PER BIRD	**$0.10**

PLACEMENT PER YEAR	5478700	
TARGET SAVINGS PER YEAR	3 CENTS PER BIRD	$164,361.00
ESTIMATED SAVINGS PER YEAR	10 CENTS PER BIRD	$547,870.00
TARGET ACHIEVABLE %		333%

The project is further trialed into other sheds and is currently monitored.

PRODUCTIVITY MEASURES

Installation of Bucket Elevator

Project Cost	Labour Cost	Total Cost	Savings Details	Saving /$	
1.$21000	$3,000	$24,000	2.66h*10t/h = 26tons	1040bags*$27.80 = $28,912	

Intake Elevator Downtime Details

Time - 40min stop on every containers discharged	Total Container /Day = 4 Containers / 2*8 hours shift

40 min packing stop x 4 containers = 160min 160 min /60 = 2.66hr/day

Packing Throughput = 5bags /Minutes. 160min x 5 bags = 800bags.

Weekly bags = 4800bags

Yearly Bags = 249600bags

Labour Cost saving

Down Time Daily - 2.66hrs	Calculation - $3.78 * 2.66hr = $10.05 / $10.05*27staffs = $271.17 /Day / $217.17*52weeks
Staff Rate $3.78	
Total Down time per week - 15.96/hr.	= $14.110 annual
Total Down time per year - 829hrs	
Feed mill Head Count - 27	

Down Time % Savings

Plan Down Time - .5hr /Daily	1.04%	0.5hrs planned down time /48hrs Planned production hours *100/1 = 1.04%
Average Milling Down Time Prior to installation - 13hrs	27.00%	13hrs Milling Down time /48hr production hours =27%
Average Milling down time After Installation - 4hrs	8.33%	3hrs Milling Down time /48 production hours = 8.33%

Calculation - PMDT 27% - PDT1.04% - CMDT 8.33% = 17.63%

Production Hours 48[100%] - Previous DT14hr [27%] = 35 Available Hours [73%]

Production Hours 48[100%] - Current DT 3hrs [8.33%] = 91%

Production Savings

Previous Weekly Container Received - 19			
Current Container Received - 24			
Planned Containers - 26	PWCR 19 /PC 26*100/1 =73%	/ CCR 24/PC 26 = 92%	92% - 73% = 17%

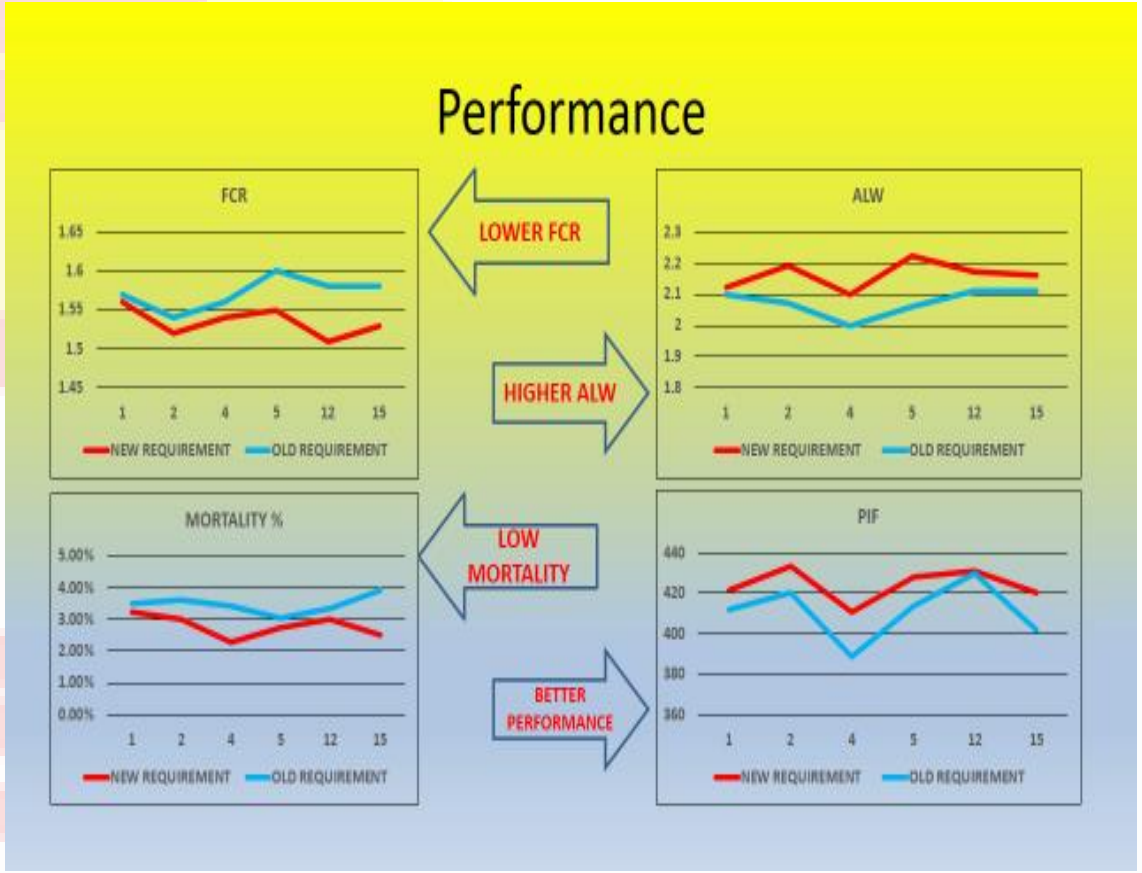
17% increase in production

POSTIVE IMPACT TRENDS/BENCHMARK AND COMPARISSONS

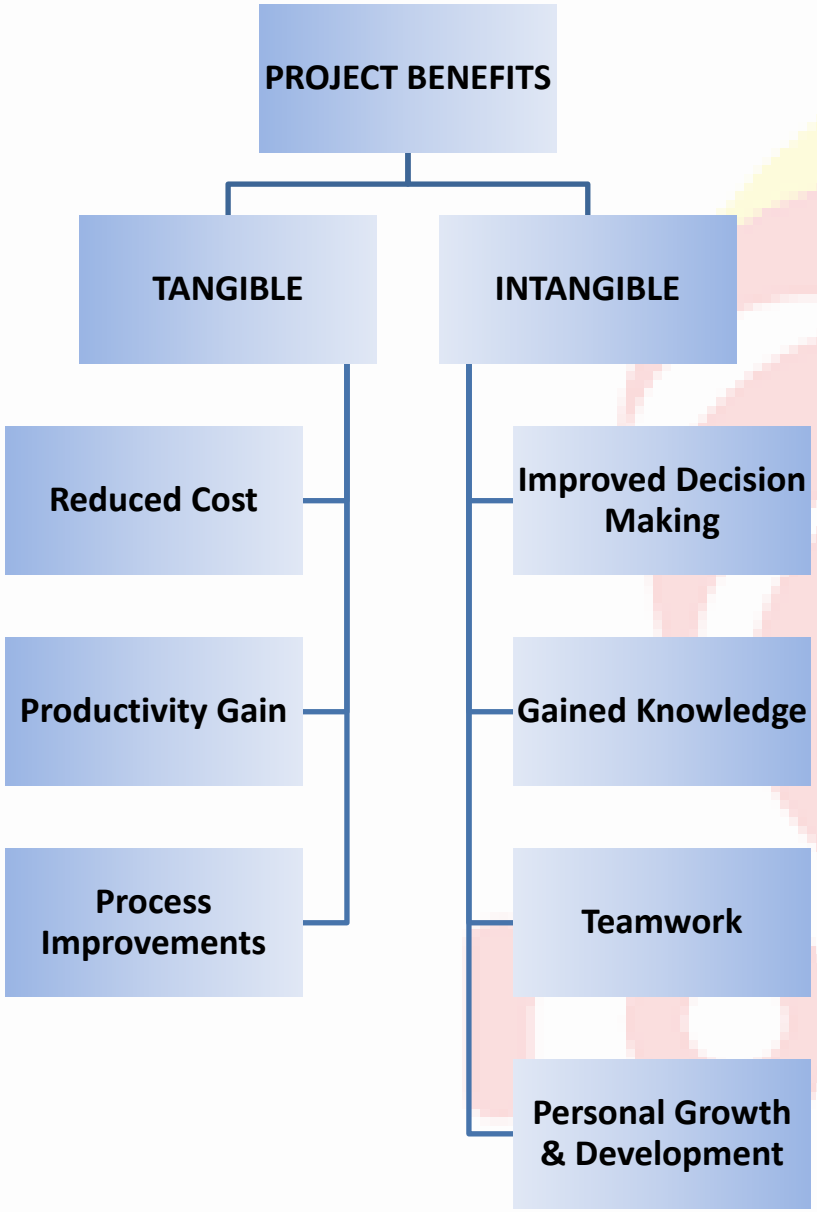
Installation of Bucket Elevator and Sunroof

- ✓ **ACHIEVE 80 TONNES OF PRODUCTION DAILY –** Production as we speak is averaging at 82% production after the implementation of new idea. This allows 22% offset or extra feed for backup supplies.
- ✓ **FULLY UTILISE EQUIPMENT CAPACITY BY 90%-** There is an increase of 19% from the 73% container received on a weekly basis a maximum of 92% is now received which exceeds our target of 90%
- ✓ **REDUCE DOWNTIME BY 10% -** Downtime has been further reduced from 27% to just 8 % after the installation of elevator that helps them meet daily targets.

Adjustment of Formulation Trials



TANGIBLE AND INTANGIBLE RESULTS



VALUE ADDING FROM FINAL SOLUTIONS

TOOLS	VALUE ADDED	TANGIBLE RESULTS
• **Brainstorming** • **Decision Matrix** • **Problem ranking** • **Cause and Effect Diagram** • **Pareto Analysis**	• Reduce downtime • Maximize Equipment Capacity • Staff productivity improves • Conformity to standards • Better skills Better results • Cost Saving	**Project installation of sunroof :** **Savings Details** $82.50/monthly Savings from electricity bills. **Project Installation of Elevator:** **Savings Details:** 2.66h*10t/h = 26tons Saving /$: 1040bags*$27.80 = $28,912

ACT STAGE

- Sustainability of Project Ideas
- Corporate Social Responsibilities
- Continual Improvement and Future Plans

PROJECT STANDARDIZATION, REVIEW AND SUSTAINABILITY

Sustainability Review and Capabilities

Review of Project Results/ performance capabilities	Review of results with Head of Livestock	Head of Livestock Presents to Executive Committee.	Action Plan and Assessments and realignment to Strategic Plan	Standardization of project through inclusion in SOP's linked to ISO 9001:2015.
	→			
		→	→	
				→
	←	←	←	←

Standardization of Idea

rooster	Future Farms (Pte) Limited t/a Rooster poultry P. O. Box 47 Ba, Fiji Islands	Feed Mill Procedures Manual	
		Document Owner: Feed Mill Manager	
		Date: 27.07.2021	
		QMS 012	Version: 06
Reference: Quality Management System - ISO 9001: 2015			

22	Pellet Silo Bottom drag – The silo drag conveys the finished product from the silo and discharges it in to Finish Elevator which feed the Pellet drag through the inlet valve.	
23	Finish Elevator – The discharged feed from the bottom silo drag is elevates the product and discharges it to the 2way valve.	

CORPORATE SOCIAL RESPONSIBILITIES

- **BUILD A HOME INNITIATIVE AT KOROIPITA COMMUNITY** – assisted in building cyclone – safe houses that provides guidance and support for the advancement of poor families in a clean and green environment. The Model Towns prescription offers important solutions for managing rural/urban drift and for the resettlement of climate change and other refugees.



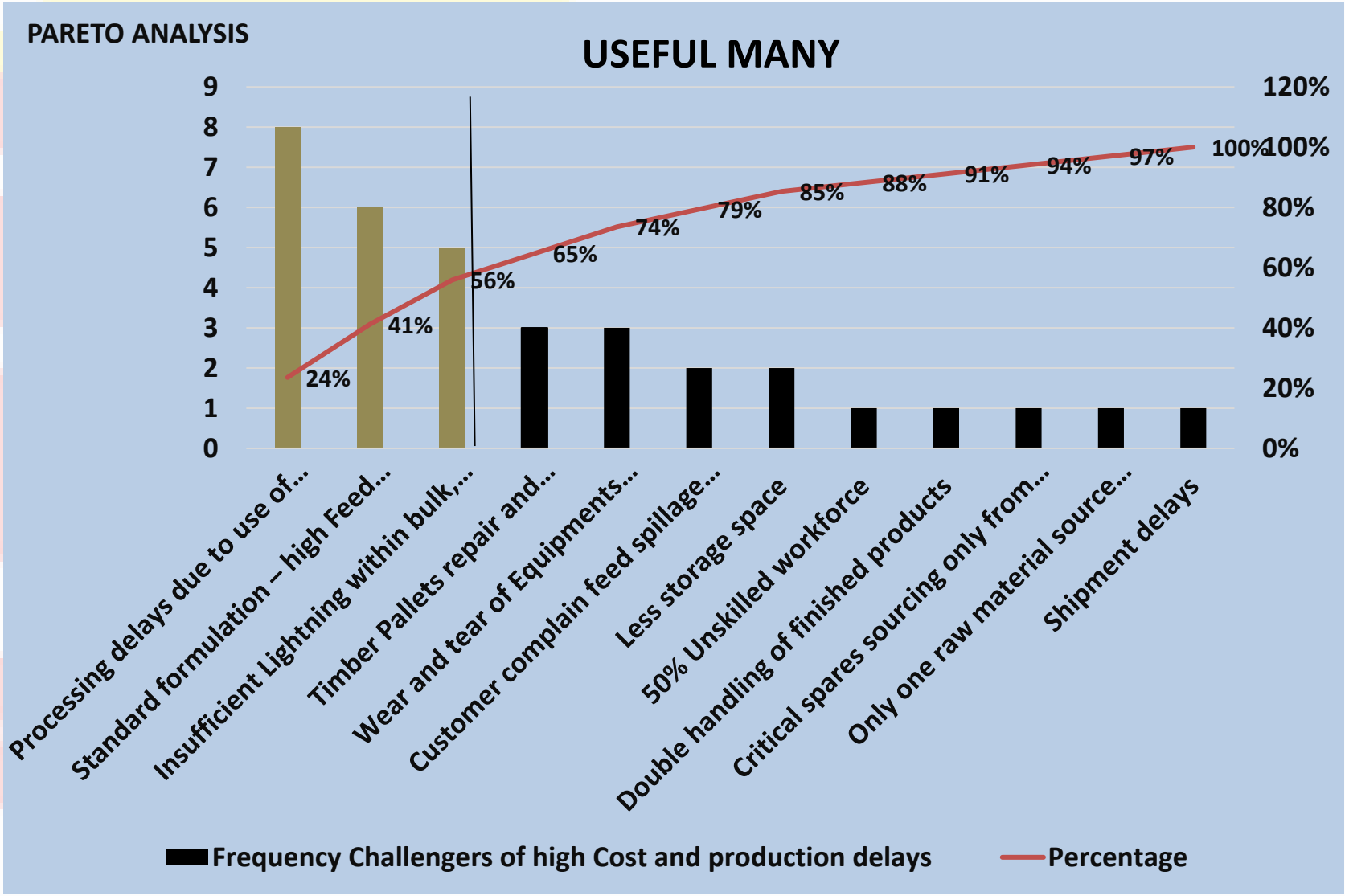


CONTINUAL IMPROVEMENT & FUTURE PLANS

CONTINUAL IMPROVEMENT EFFORTS

- Make Transformations
- Learning and Integration
- Adopt The New Philosophy

FOCUS ON FUTURE PLANS



If we are to maintain Excellence we must

Continue to create it!

rooster

CHOOSE QUALITY

CHOOSE ROOSTER