

CARABAO-BASED BUSINESS PORTFOLIO

Series | **Number 10**



Department of Agriculture
PHILIPPINE CARABAO CENTER
CERTIFIED ISO 9001 | ISO 14001 | ISO 45001

**AN INVESTMENT
OVERVIEW**



DAIRY BOX



DAIRY BOX ONE-STOP SHOP

Copyright 2023 DA-Philippine Carabao Center

All rights reserved.

No part of this publication may be reproduced in any form or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior permission of the copyright owners.

Produced by Planning and Information Management Division.
Edited and Reproduced by Knowledge Management Division.

EDITORS

Mr. Zadieshar G. Sanchez
Ms. Jan Czarina M. Salas
Mr. Joshua G. Villanueva
Ms. Angelique Anlocotan-Orejana
Ms. Pauline A. Maramag
Ms. Queenie B. Ruiz
Ms. Giselle M. Sacupaso
Ms. Ericka Joyce L. Mallari

TECHNICAL ADVISERS

Ms. Mina P. Abella
Dr. Eufrocina P. Atabay
Dr. Cyril P. Baltazar
Mr. Joel F. Cabading
Ms. Charity Castillo
Dr. Libertado C. Cruz
Ms. Rose U. De Guia
Dr. Arnel N. Del Barrio
Dr. Ester B. Flores
Ms. Rowena S. Galang
Dr. Clarissa A. Odsigue
Ms. Marivic A. Orge
Dr. Wynne A. Pagaduan
Dr. Eric P. Palacpac
Dr. Caro B. Salces
Dr. Anabelle S. Sarabia
Ms. Jeraldin S. Torres
Ms. Estella P. Valiente

LAYOUT AND ILLUSTRATION

Ms. Aira S. Aquino
Mr. Reymark L. Collado
Ms. Kristiana G. Dela Cruz
Mr. Nheil Aldrin S. Esguerra
Ms. Jamie M. Fernando
Ms. Maria Christine R. Jimenez
Ms. Karen Loise A. Rodriguez
Mr. Kenneth Aldrin E. Vera

EDITORIAL ADVISER

Dr. Liza G. Battad

Published triennially by the DA-Philippine Carabao Center
National Headquarters and Genepool,
Science City of Muñoz, Nueva Ecija

All publications are available at the DA-Philippine Carabao Center or www.pcc.gov.ph
Photos by Knowledge Management Division

DAIRY BOX ONE-STOP SHOP

An Investment Overview

Monitoring and Business Planning Support Section
Planning and Information Management Division
DA-Philippine Carabao Center National Headquarters and Gene Pool

Publications in the “Carabao-Based Business Portfolio Series”:

1. 5-Cow Start-up Dairy Buffalo Farm Business: An Investment Overview
2. 10-Cow Start-up Dairy Buffalo Farm Business: An Investment Overview
3. 15-Cow Start-up Dairy Buffalo Farm Business: An Investment Overview
4. 20-Cow Start-up Dairy Buffalo Farm Business: An Investment Overview
5. 25-Cow Start-up Dairy Buffalo Farm Business: An Investment Overview
6. 50-Cow Start-up Dairy Buffalo Farm Business: An Investment Overview
7. Corn Silage Production Business: An Investment Overview
8. Vermicast Production Business: An Investment Overview
9. Small-Scale Dairy Processing Facility Business: An Investment Overview
10. Dairy Box One-Stop Shop Business: An Investment Overview
11. Kardeli Meat Products Retail Business: An Investment Overview

Dairy
BOX
one-stop shop

An Investment Overview



FOREWORD

The current national landscape defines the Philippines as undergoing challenges because of economic shocks and market instability as consequences of the recent pandemic, international disputes, and natural calamities. The goal is to recover as soon as possible, strategically refocus in time of the new leadership, and continue with our allegiance to the global Sustainable Development Goals. The Department of Agriculture (DA) is vital in the attainment of the president's 8-point economic agenda, particularly those concerning food security, job creation, and investment flow to the agriculture sector – all towards reduced vulnerability, hunger, and poverty.

Attached to the DA, the Philippine Carabao Center is mandated through RA 7307 to conserve, propagate, and promote the carabao as a source of milk, meat, draft power, and hide. Since its creation in 1992, the agency has established its credibility as a premiere research and development institution serving as the lead agency for livestock and biotechnology research pursuant to DA AO no. 9 s. 2008, and just recently, as the National Livestock Cryobank for the department. DA-PCC have become a vital cog in the livestock industry working closely with various international and local funding institutions, national legislators, private organizations, LGUs, and all the other players across the carabao value chain towards increasing productivity, championing innovations, and proving the economic viability of carabao-based businesses.

With the reception of the 2018 released prototype publication of DA-PCC's Carabao-Based Business Portfolio Series featuring the investment requirement and financial viability of 6 Dairy Buffalo Businesses, to wit:

- (1) 5-Cow Start-up Dairy Buffalo Farm Business,
- (2) 10-Cow Start-up Dairy Buffalo Farm Business,
- (3) 15-Cow Start-up Dairy Buffalo Farm Business,
- (4) 20-Cow Start-up Dairy Buffalo Farm Business,
- (5) Silage Production, and
- (6) Dairy Box One-Stop Shop.



This official publication of investment guide is hereby issued to update the technical and economic assumptions given the innovations and the price changes of late. Additional businesses will also be introduced, and opportunities were divided in categories making the final portfolio that will be released in 2024 to 2027 consisting of the final investment modules as follows:

A. Dairy Value Chain

- 5-Cow Start-up Dairy Buffalo Farm Business
- 10-Cow Start-up Dairy Buffalo Farm Business
- 15-Cow Start-up Dairy Buffalo Farm Business
- 20-Cow Start-up Dairy Buffalo Farm Business
- 25-Cow Start-up Dairy Buffalo Farm Business
- 50-Cow Start-up Dairy Buffalo Farm Business
- Small-scale Dairy Processing Facility Business
- Dairy Box One-Stop Shop Business

B. Meat Value Chain

- 5 Carabao Fattening Business
- 10 Carabao Fattening Business
- Kardeli Meat Products Retail Business

C. Dairy and Meat Value Chain Inputs

- Vermicast Production Business
- Corn Silage Production Business
- Group AI Business Semen Straw Production
- Individual/Group AI Business
- Semen Straw Production Business

These publications are designed to guide potential investors as they consider venturing in the carabao value chain. Information on what crucial factors and events should and should not happen to earn profits in the long run are all included in the assumptions formulated after a series of consultation with DA-PCC technical experts, farmers, and other value chain players in the field.

With the effects of the National Feeding Program pursuant to RA 11037 also known as the “Masustansiyang Pagkain Para sa Batang Pilipino Act”, and the Carabao-based Business Improvement Network (CBIN) and Coconut-Carabao Development Project (CCDP) championed by Sen. Cynthia A. Villar, the carabao sector has gained much stability that it thrived even during the pandemic. These factors, along with DA-PCC’s brand of research, business, technical, market, and extension services provision

make the carabao value chain a promising investment opportunity. This portfolio conveys DA-PCC’s honest commitment to stimulating investment not just for the carabao sector but also for the agriculture sector in general. These business modules were just some of the tools that DA-PCC had developed to ensure a more private-led and thriving carabao value chain.

Mabuhay ang sektor ng Kalabawan!


DR. LIZA G. BATTAD
Executive Director



TABLE OF CONTENTS

Part II

Introduction	1
--------------	---

Part II

Dairy Box One-Stop Shop Assumptions	6
Revenues Assumptions	9
Expenses Assumptions	10
Net Income and Return on Investment	12

Part III

Investment-Worthiness Indicators	13
Summary of Profitability Indicators	14
Revenue Forecast: Projected Income Statement	
Case 1: Zero Debt	20
Case 2: 70% Debt	22
Case 3: 60% Debt	24
Case 4: 50% Debt	26
Projected Cashflows (for Cases 1-4)	28

Part IV

Pool of Technical Experts	31
Featured Actual Adopter	32
Profitability Indicators of All Business Modules in Portfolio	34
List of DA-PCC Available Technologies	36
Inventory of Best Practices	38
Glossary of Terms	44
Authors and Other Contact Information	46

INTRODUCTION

We present to you the Dairy Box One-Stop Shop as derived from the Dairy Value Chain segment of the Carabao Value Chain with an initial investment requirement of PHP1,466,500.00, and projected to earn an Internal Rate of Return of 51.67%, with a payback period of 4.86 years.

Like each investment opportunity presented in the series, we begin with a set of assumptions from the technical, economic, and market aspect of the business. This section must be read thoroughly specially for interested investors with little to no background in the investment opportunity at hand. This is followed by a conceptual discussion of selected investment-worthiness indicators i.e. Net Present Value, Hurdle Rate, Internal Rate of Return, Payback Period, Profitability Index, and Initial Investment Requirement. A dedicated page showing the Summary of Profitability Indicators follows showing the numerical merits of the opportunity.

Details of the 10-year analysis follow starting with the projected Income Statement which shows the annual Revenues, Expenses, Net Income, and ROI. Supporting notes for specific revenues and expense items were provided afterward to show how the amounts were computed. Projected Cash Flows were then shown from which the investment worthiness indicators were generated. Finally, for the quantitative parts, the breakdown of the initial investment requirement was also provided with details as may be necessary.

Succeeding pages contain other vital information to wit: (1) Profitability Indicators, Summary of All Business Modules in the Portfolio, (2) Testimonial from actual adopters, (3) List of available DA-PCC technologies and contact information, (4) Inventory of best practices, (5) Glossary of terms, (6) Authors and other contact information, and (7) Pool of Technical Experts.



THE DOUGH IN DAIRY

The Dairy Box's main objective is to mainstream the locally produced and processed dairy products of its surrounding community. A variety of food and non-food products can be offered, depending on the location of the store and market profile in the area.

The Dairypreneur's PHP1,466,500 Dairy Box investment sets up a fully airconditioned and furnished 30sqm store with a minimum of 600 units of products, each with average of 11.12% ROI. It operates with a shifting store manager and 2 staff for 11 hours a day.

This venture has a payback period of 4.86 years and is projected to gain an internal rate of return of 51.67% and have a net present value of PHP1.87M in 10 years.

A WIN WIN PROJECT



Dairypreneurs

- Good investment profile
- Assistance from CBED
- Linkage with supporting government agencies
- DOT-certified

DA-Philippine Carabao Center

- Commercialize products of CBEs
- Mainstream CBEs products
- Encourage more dairypreneurs to invest or consign products in Dairy Box.
- Growth of the carabao industry.



DAIRY COOPERATIVE

Requirements

- Registered cooperative
- DA-PCC CBED client
- Processes dairy products
- FDA approved facility or application in process

PRIVATE INDIVIDUAL

Adopt a local dairy cooperative!

Requirements

- Passionate in helping a dairy farmers

Bonus

- Processes dairy products
- FDA approved facility or application in process

MEET YOUR SUPPLIERS AND CONSIGNORS

There is a nationwide network of dairy associations and cooperatives processing dairy products, as well as local dairy entrepreneurs just waiting to be discovered by the mainstream market.

We'll get you connected!



13

National and Regional Impact Zone



189

Dairy Cooperatives

Let us know where you are and where you plan to build a box with us!

Check out the nearby Dairy Cooperatives and their products that will fill your pasalubong shop.



Dairy BOX

ONE-STOP SHOP ASSUMPTIONS

To visualize a financial flow of sets of annual revenues, expenses, income and returns encompassing a 10-year operating period, we hold the following set of assumptions that guided all the dairy farming models' profitability calculations.

The following Dairy Box One-Stop Shop assumptions were created in reference to actual business performance of Dairy Box-Muñoz operations.

TRIVIA

From its humble beginnings as a small dairy store founded in 1969 with seven employees, Stew Leonard's has grown to become not only the World's Largest Dairy Store, but one of the most renowned grocery stores, with annual sales of nearly \$300 million and almost 2,000 Team Members.

- Stew Leonard

1 of 4



ASSUMPTIONS REVENUES

The following assumptions were based on Dairy Box-Muñoz' actual figures and experiences as follows:



10 distinct products were introduced in the shop at year one increasing by 10 annually.



Daily sales per product for year one is estimated at 18 units or 540 units per month.



For the succeeding years, total quantity of products sold is projected to increase by 5% hence, expected volume sold per distinct product will decline due to new products introduced.



Selling price per unit of product was averaged at PHP75.00 for year 1 increasing by 3% annually thereafter to account for inflation.

ASSUMPTIONS EXPENSES

The following standard costs were based on Dairy Box - Munoz Operations.



Cost of sales is estimated to equal 80% of sales from year 1 to year 3, decreasing by 5% every three-year interval.



Rent expense estimated monthly rate is PHP10,000.00 increasing by 5% every 3 years interval.



Taxes and licenses cost for year 1 was estimated at PHP18,000.00 increasing by 5% every 3 years thereafter.



Salaries and other benefits expense were pegged to include 3 employees at years 1 to 3 with additional 1 employee every three year, starting at an average daily rate of PHP420.00 increasing by 5% every 3 years covering 360 workdays per year.

Dairy BOX

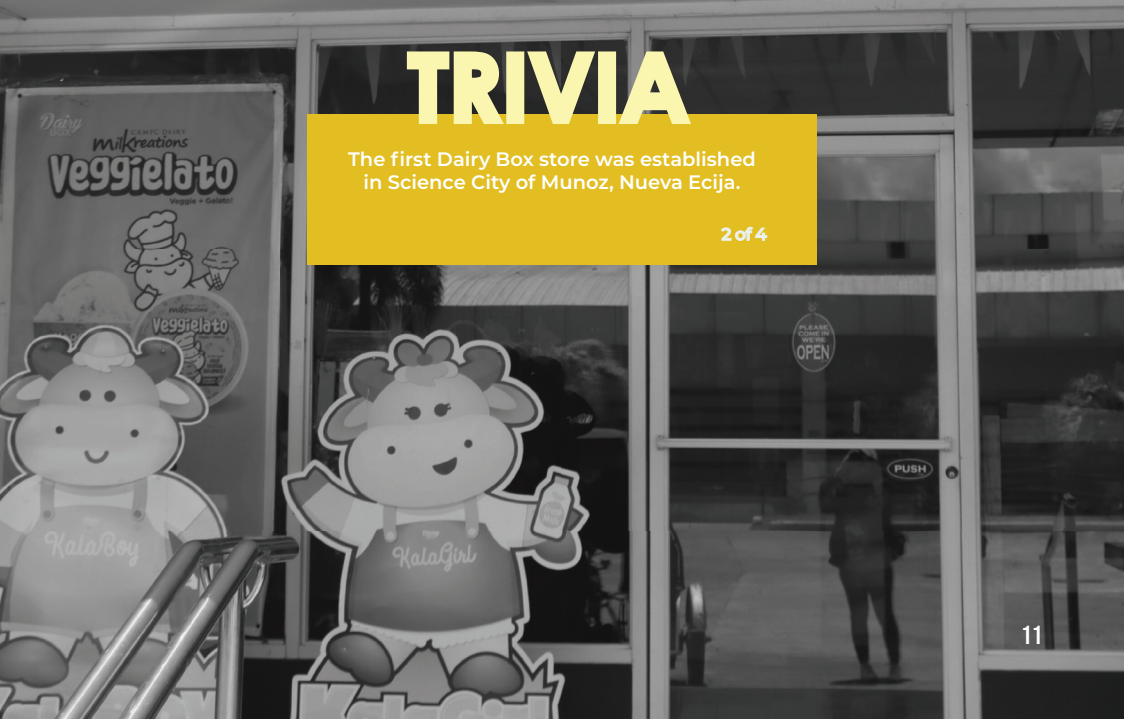
Other Selling and Administrative Expenses (at year 1 standard cost estimated)

Administrative Expense	10,000.00 ^(PHP)
Selling and Advertising Expense	2,000.00
Electricity, water and other utilities expense	1,800.00
Supplies Expenses	6,200.00
Depreciation Expense	800.00
Transportation Expense	850.00
Miscellaneous Expense	2,700.00
Representation Expense	600.00

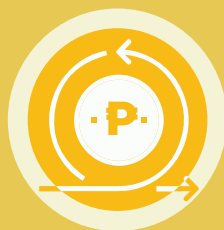
TRIVIA

The first Dairy Box store was established in Science City of Munoz, Nueva Ecija.

2 of 4



ASSUMPTIONS NET INCOME AND RETURN ON INVESTMENT



Annual return on investment is computed by dividing accrual net income by total accrual expenses

$$ROI = \left(\frac{\text{ACCRUAL NET INCOME}}{\text{ACCRUAL NET EXPENSES}} \right) \times 100$$



Annual net income is computed by deducting the total expenses from the total revenues under accrual accounting method.

$$\text{ANNUAL NET INCOME} = \text{TOTAL REVENUES} - \text{TOTAL EXPENSES}$$

INVESTMENT-WORTHINESS INDICATORS

For identifying the investment worthiness of this portfolio, following indicators were computed as follows:

Net Present Value of Cash Flows is computed by discounting annual cash flows using a hurdle rate of 14%.

Hurdle Rate is the minimum rate that a company expects to earn when investing in a project. Hence the hurdle rate is also referred to as the company's required rate of return or target rate. In order for a project or business venture to be accepted, its internal rate of return must exceed the hurdle rate.

Here, the hurdle rate is assumed to be 14%. Hence, the portfolio must carry an Internal Rate of Return higher than 14% or else, the investment will have to be rejected.^[1]

Internal Rate of Return (IRR) is a metric used in evaluating investment options to estimate the profitability of potential investments. IRR may be understood as the rate of growth a project or business is expected to generate within a specified time frame.

For this investment portfolio, IRR is also estimated and compared vis-à-vis the set hurdle rate of 14%. The IRR should be greater than 14% to become investment-worthy.^[2]

Payback Period is the time at which all initial investments will be recuperated. An investment portfolio of this type should return a Payback Period of at most 6 to 7 years. With this, it is imperative to note that Dairy Box One-Stop Shop is for committed businessmen only.

Profitability Index. All annual Net Cash Inflows (disregarding the initial investment) are discounted using the hurdle rate of 14% for indexing purposes with the amount of Initial Investment. This is actually the model used for ranking different investment portfolios. As a general rule, the profitability index should be greater than 1.

Initial Investment is the summation of the estimated capital investment requirement (i.e. Property, plant and equipment, working capital)

[1] Averkamp, Harold (CPA, MBA. What is hurdle rate?. Accounting Coach, 2018. <https://www.accountingcoach.com/blog/what-is-hurdle-rate>. March 7, 2018

[2] Internal Rate of Return – IRR. Investopedia, 2018. <https://www.investopedia.com/terms/i/irr.asp>. March 7, 2018

Dairy BOX

one-stop shop

SUMMARY OF PROFITABILITY INDEX BASED ON ZERO DEBT 10 YEARS PROJECTION

Initial Investment

PHP1,466,500.00

Daily Net Income

PHP2,116.51

Total Daily Revenue
PHP19,426.90

Total Daily Cost
PHP17,310.39

Payback Period

4.86 years

Net Present Value (NPV)

PHP2,478,115.15

Internal Rate of Return

51.67%

VS

Bank Time Deposit 5-6%
Equity Security in Financial Market 10-14%
Treasury Bills (Phil.) 6%



The Dairy Box One-Stop Shop is a business concept offered to investors interested in trading unique and local products made with buffalo's milk. It's truly a noble enterprise as it helps local "Dairypreneurs" and promotes the Filipino creativity. Ideally created to package and promote the value added products of cooperatives, this concept is also a viable option for private investors too.

This food retail store shall house a variety of "pasalubong" products (food & non-food) ideally offered to tourists and travellers. Location is a key success factor as well as stability of product supply. Marketing and training assistance shall be provided by the DA-Philippine Carabao Center. Also included in the package of assistance is the iREB Dashboard for monitoring the financial and operational performance of the shop.

what's in the **BOX?**





Average of +-30sqm
Hours: 8-7pm
Air-conditioned



1 store manager
2 store assistants



Combination of
• Dairy/Carabao based products
• Non-food merchandise



Average: 30% ROI
Stock-keeping Unit(SKU): 600 units



Food Products average shelf life:
7-14 days room temperature



No. of units sold per day: 18 units
Average sales per day: P 19,426.90



INTRODUCTION TO
**FINANCIAL
STATEMENTS**



Quality Milk for Better Life
Nutri Milk
PANDAN

Quality Milk for Better Life

Nutri Milk

STRAWBERRY

MADE FROM CARABAO'S MILK
250 mL

Quality Milk for Better Life

Nutri Milk

PANDAN

MADE FROM CARABAO'S MILK
250 mL

Quality Milk for Better Life

Nutri Milk

PANDAN

MADE FROM CARABAO'S MILK
250 mL

REVENUE FORECAST PROJECTED INCOME STATEMENT

CASE 1: ZERO DEBT

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
REVENUES				
Gross Sales	4,860,000.00	5,256,090.00	5,684,461.34	6,147,744.93
Cost of Sales	3,888,000.00	4,204,872.00	4,547,569.07	4,610,808.70
Gross Sales	972,000.00	1,051,218.00	1,136,892.27	1,536,936.23
EXPENSES				
Rent Expense	120,000.00	120,000.00	120,000.00	126,000.00
Salaries and Other Benefits Expenses	453,600.00	453,600.00	453,600.00	635,040.00
Administrative Expense	120,000.00	120,000.00	120,000.00	126,000.00
Selling and Advertising Expenses	24,000.00	24,000.00	24,000.00	25,200.00
Electricity, Water and Other Utilities Expenses	21,600.00	21,600.00	21,600.00	22,680.00
Supplies Expense	74,400.00	74,400.00	74,400.00	78,120.00
Depreciation Expense	9,600.00	9,600.00	9,600.00	10,080.00
Transportation Expense	10,200.00	10,200.00	10,200.00	10,710.00
Miscellaneous Expense	32,400.00	32,400.00	32,400.00	34,020.00
Representation Expense	7,200.00	7,200.00	7,200.00	7,560.00
Taxes and Licences	18,000.00	18,000.00	18,000.00	18,900.00
Total Expenses	891,000.00	891,000.00	891,000.00	1,094,310.00
Net Income	81,000.00	160,218.00	245,892.27	442,626.23
ROI*	1.69%	3.14%	4.52%	7.76%

**For the purpose of continually computing the ROI after the initial investment, the total expenses will be considered as the annual "investment". The new formula of the annual ROI will be: Net Income divided by Total expenses. This is with the assumption that annual total expenses are considered investments in the business.*



NT (PHP)

YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
6,648,786.15	7,190,662.22	7,776,701.19	8,410,502.33	9,095,958.27	9,837,278.87
4,986,589.61	5,392,996.66	5,443,690.83	5,887,351.63	6,367,170.79	6,394,231.27
1,662,196.54	1,797,665.55	2,333,010.36	2,523,150.70	2,728,787.48	3,443,047.61
126,000.00	126,000.00	132,300.00	132,300.00	132,300.00	138,915.00
635,040.00	635,040.00	833,490.00	833,490.00	833,490.00	1,050,197.40
126,000.00	126,000.00	132,300.00	132,300.00	132,300.00	138,915.00
25,200.00	25,200.00	26,460.00	26,460.00	26,460.00	27,783.00
22,680.00	22,680.00	23,814.00	23,814.00	23,814.00	25,004.70
78,120.00	78,120.00	82,026.00	82,026.00	82,026.00	86,127.30
10,080.00	10,080.00	10,584.00	10,584.00	10,584.00	11,113.20
10,710.00	10,710.00	11,245.50	11,245.50	11,245.50	11,807.78
34,020.00	34,020.00	35,721.00	35,721.00	35,721.00	37,507.05
7,560.00	7,560.00	7,938.00	7,938.00	7,938.00	8,334.90
18,900.00	18,900.00	19,845.00	19,845.00	19,845.00	20,837.25
1,094,310.00	1,094,310.00	1,315,723.50	1,315,723.50	1,315,723.50	1,556,542.58
567,886.54	703,355.55	1,017,286.86	1,207,427.20	1,413,063.98	1,886,505.03
9.34%	10.84%	15.05%	16.76%	18.39%	23.73%



REVENUE FORECAST PROJECTED INCOME STATEMENT

CASE 2: 70% DEBT

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
REVENUES				
Gross Sales	4,860,000.00	5,256,090.00	5,684,461.34	6,147,744.93
Cost of Sales	3,888,000.00	4,204,872.00	4,547,569.07	4,610,808.70
Gross Sales	972,000.00	1,051,218.00	1,136,892.27	1,536,936.23
EXPENSES				
Rent Expense	120,000.00	120,000.00	120,000.00	126,000.00
Salaries and Other Benefits Expenses	453,600.00	453,600.00	453,600.00	635,040.00
Administrative Expense	120,000.00	120,000.00	120,000.00	126,000.00
Selling and Advertising Expense	24,000.00	24,000.00	24,000.00	25,200.00
Electricity, Water and Other Utilities Expenses	21,600.00	21,600.00	21,600.00	22,680.00
Supplies Expense	74,400.00	74,400.00	74,400.00	78,120.00
Depreciation Expense	9,600.00	9,600.00	9,600.00	10,080.00
Transportation Expense	10,200.00	10,200.00	10,200.00	10,710.00
Miscellaneous Expense	32,400.00	32,400.00	32,400.00	34,020.00
Representation Expense	7,200.00	7,200.00	7,200.00	7,560.00
Taxes and Licences	18,000.00	18,000.00	18,000.00	18,900.00
Total Expenses	891,000.00	891,000.00	891,000.00	1,094,310.00
Net Income	81,000.00	160,218.00	245,892.27	442,626.23
Less: Interest Expense*	153,982.50	123,186.00	92,389.50	61,593.00
Earnings after Interest	(72,982.50)	37,032.00	153,502.77	381,033.23
ROI*	-1.48%	0.71%	2.78%	6.61%

*Interests are computed at 15% annual rate

**For the purpose of continually computing the ROI after the initial investment, the total expenses will be considered as the annual "investment". The new formula of the annual ROI will be: Net Income divided by Total expenses. This is with the assumption that annual total expenses are considered investments in the business.



NT (PHP)

YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
6,648,786.15	7,190,662.22	7,776,701.19	8,410,502.33	9,095,958.27	9,837,278.87
4,986,589.61	5,392,996.66	5,443,690.83	5,887,351.63	6,367,170.79	6,394,231.27
1,662,196.54	1,797,665.55	2,333,010.36	2,523,150.70	2,728,787.48	3,443,047.61
126,000.00	126,000.00	132,300.00	132,300.00	132,300.00	138,915.00
635,040.00	635,040.00	833,490.00	833,490.00	833,490.00	1,050,197.40
126,000.00	126,000.00	132,300.00	132,300.00	132,300.00	138,915.00
25,200.00	25,200.00	26,460.00	26,460.00	26,460.00	27,783.00
22,680.00	22,680.00	23,814.00	23,814.00	23,814.00	25,004.70
78,120.00	78,120.00	82,026.00	82,026.00	82,026.00	86,127.30
10,080.00	10,080.00	10,584.00	10,584.00	10,584.00	11,113.20
10,710.00	10,710.00	11,245.50	11,245.50	11,245.50	11,807.78
34,020.00	34,020.00	35,721.00	35,721.00	35,721.00	37,507.05
7,560.00	7,560.00	7,938.00	7,938.00	7,938.00	8,334.90
18,900.00	18,900.00	19,845.00	19,845.00	19,845.00	20,837.25
1,094,310.00	1,094,310.00	1,315,723.50	1,315,723.50	1,315,723.50	1,556,542.58
567,886.54	703,355.55	1,017,286.86	1,207,427.20	1,413,063.98	1,886,505.03
30,796.50					
537,090.04	703,355.55	1,017,286.86	1,207,427.20	1,413,063.98	1,886,505.03
8.79%	10.84%	15.05%	16.76%	18.39%	23.73%



REVENUE FORECAST PROJECTED INCOME STATEMENT

CASE 3: 60% DEBT

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
REVENUES				
Gross Sales	4,860,000.00	5,256,090.00	5,684,461.34	6,147,744.93
Cost of Sales	3,888,000.00	4,204,872.00	4,547,569.07	4,610,808.70
Gross Sales	972,000.00	1,051,218.00	1,136,892.27	1,536,936.23
EXPENSES				
Rent Expense	120,000.00	120,000.00	120,000.00	126,000.00
Salaries and Other Benefits Expense	453,600.00	453,600.00	453,600.00	635,040.00
Administrative Expense	120,000.00	120,000.00	120,000.00	126,000.00
Selling and Advertising Expense	24,000.00	24,000.00	24,000.00	25,200.00
Electricity, Water and Other Utilities Expense	21,600.00	21,600.00	21,600.00	22,680.00
Supplies Expense	74,400.00	74,400.00	74,400.00	78,120.00
Depreciation Expense	9,600.00	9,600.00	9,600.00	10,080.00
Transportation Expense	10,200.00	10,200.00	10,200.00	10,710.00
Miscellaneous Expense	32,400.00	32,400.00	32,400.00	34,020.00
Representation Expense	7,200.00	7,200.00	7,200.00	7,560.00
Taxes and Licences	18,000.00	18,000.00	18,000.00	18,900.00
Total Expenses	891,000.00	891,000.00	891,000.00	1,094,310.00
Net Income	81,000.00	160,218.00	245,892.27	442,626.23
Less: Interest Expense*	131,985.00	105,588.00	79,191.00	52,794.00
Earnings after Interest	(50,985.00)	54,630.00	166,701.27	389,832.13
ROI**	-1.04%	1.05%	3.02%	6.77%

* Interests are computed at 15% annual rate

**For the purpose of continually computing the ROI after the initial investment, the total expenses will be considered as the annual "investment". The new formula of the annual ROI will be: Net Income divided by Total expenses. This is with the assumption that annual total expenses are considered investments in the business.



NT (PHP)

YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
6,648,786.15	7,190,662.22	7,776,701.19	8,410,502.33	9,095,958.27	9,837,278.87
4,986,589.61	5,392,996.66	5,443,690.83	5,887,351.63	6,367,170.79	6,394,231.27
1,662,196.54	1,797,665.55	2,333,010.36	2,523,150.70	2,728,787.48	3,443,047.61
126,000.00	126,000.00	132,300.00	132,300.00	132,300.00	138,915.00
635,040.00	635,040.00	833,490.00	833,490.00	833,490.00	1,050,197.40
126,000.00	126,000.00	132,300.00	132,300.00	132,300.00	138,915.00
25,200.00	25,200.00	26,460.00	26,460.00	26,460.00	27,783.00
22,680.00	22,680.00	23,814.00	23,814.00	23,814.00	25,004.70
78,120.00	78,120.00	82,026.00	82,026.00	82,026.00	86,127.30
10,080.00	10,080.00	10,584.00	10,584.00	10,584.00	11,113.20
10,710.00	10,710.00	11,245.50	11,245.50	11,245.50	11,807.78
34,020.00	34,020.00	35,721.00	35,721.00	35,721.00	37,507.05
7,560.00	7,560.00	7,938.00	7,938.00	7,938.00	8,334.90
18,900.00	18,900.00	19,845.00	19,845.00	19,845.00	20,837.25
1,094,310.00	1,094,310.00	1,315,723.50	1,315,723.50	1,315,723.50	1,556,542.58
567,886.54	703,355.55	1,017,286.86	1,207,427.20	1,413,063.98	1,886,505.03
26,397.00					
541,489.54	703,355.55	1,017,286.86	1,207,427.20	1,413,063.98	1,886,505.03
8.87%	10.84%	15.05%	16.76%	18.39%	23.73%



REVENUE FORECAST PROJECTED INCOME STATEMENT

CASE 4: 50% DEBT

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
REVENUES				
Gross Sales	4,860,000.00	5,256,090.00	5,684,461.34	6,147,744.93
Cost of Sales	3,888,000.00	4,204,872.00	4,547,569.07	4,610,808.70
Gross Sales	972,000.00	1,051,218.00	1,136,892.27	1,536,936.23
EXPENSES				
Rent Expense	120,000.00	120,000.00	120,000.00	126,000.00
Salaries and Other Benefits Expense	453,600.00	453,600.00	453,600.00	635,040.00
Administrative Expense	120,000.00	120,000.00	120,000.00	126,000.00
Selling and Advertising Expense	24,000.00	24,000.00	24,000.00	25,200.00
Electricity, Water and Other Utilities Expenses	21,600.00	21,600.00	21,600.00	22,680.00
Supplies Expense	74,400.00	74,400.00	74,400.00	78,120.00
Depreciation Expense	9,600.00	9,600.00	9,600.00	10,080.00
Transportation Expense	10,200.00	10,200.00	10,200.00	10,710.00
Miscellaneous Expense	32,400.00	32,400.00	32,400.00	34,020.00
Representation Expense	7,200.00	7,200.00	7,200.00	7,560.00
Taxes and Licences	18,000.00	18,000.00	18,000.00	18,900.00
Total Expenses	891,000.00	891,000.00	891,000.00	1,094,310.00
Net Income	81,000.00	160,218.00	245,892.27	442,626.23
Less: Interest Expense*	109,987.50	87,990.00	65,992.50	43,995.00
Earnings after Interest	(28,987.50)	72,228.00	179,899.77	398,631.23
ROI**	-0.59%	1.39%	3.27%	6.93%

* Interests are computed at 15% annual rate

**For the purpose of continually computing the ROI after the initial investment, the total expenses will be considered as the annual "investment". The new formula of the annual ROI will be: Net Income divided by Total expenses. This is with the assumption that annual total expenses are considered investments in the business.



NT (PHP)

YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
6,648,786.15	7,190,662.22	7,776,701.19	8,410,502.33	9,095,958.27	9,837,278.87
4,986,589.61	5,392,996.66	5,443,690.83	5,887,351.63	6,367,170.79	6,394,231.27
1,662,196.54	1,797,665.55	2,333,010.36	2,523,150.70	2,728,787.48	3,443,047.61
126,000.00	126,000.00	132,300.00	132,300.00	132,300.00	138,915.00
635,040.00	635,040.00	833,490.00	833,490.00	833,490.00	1,050,197.40
126,000.00	126,000.00	132,300.00	132,300.00	132,300.00	138,915.00
25,200.00	25,200.00	26,460.00	26,460.00	26,460.00	27,783.00
22,680.00	22,680.00	23,814.00	23,814.00	23,814.00	25,004.70
78,120.00	78,120.00	82,026.00	82,026.00	82,026.00	86,127.30
10,080.00	10,080.00	10,584.00	10,584.00	10,584.00	11,113.20
10,710.00	10,710.00	11,245.50	11,245.50	11,245.50	11,807.78
34,020.00	34,020.00	35,721.00	35,721.00	35,721.00	37,507.05
7,560.00	7,560.00	7,938.00	7,938.00	7,938.00	8,334.90
18,900.00	18,900.00	19,845.00	19,845.00	19,845.00	20,837.25
1,094,310.00	1,094,310.00	1,315,723.50	1,315,723.50	1,315,723.50	1,556,542.58
567,886.54	703,355.55	1,017,286.86	1,207,427.20	1,413,063.98	1,886,505.03
21,997.70					
545,889.04	703,355.55	1,017,286.86	1,207,427.20	1,413,063.98	1,886,505.03
8.94%	10.84%	15.05%	16.76%	18.39%	23.73%



PROJECTED CASHFLOW

ASSUMPTIONS

Hurdle Rate
used for Discounting Purposes
14%

Working Capital
PHP881,400.00

Capital Investment
PHP585,100.00

Total Initial Investment
PHP1,466,500.00

CASHFLOWS (IN PHP)

CASE 1 ZERO DEBT

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9
90,600.00	169,818.00	255,492.27	452,706.23	577,966.54	713,435.55	1,027,870.86	1,218,011.20	1,423,647.98

CASE 2 70% DEBT

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9
(268,692.50)	(158,678.00)	(42,207.23)	185,803.23	341,860.04	713,435.55	1,027,870.86	1,218,011.20	1,423,647.98

CASE 3 60% DEBT

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9
(217,365.00)	(111,750.00)	321.27	223,932.23	375,589.54	713,435.55	1,027,870.86	1,218,011.20	1,423,647.98

CASE 4 50% DEBT

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9
(166,037.50)	(64,822.00)	42,849.77	262,061.23	409,319.04	713,435.55	1,027,870.86	1,218,011.20	1,423,647.98

TRIVIA

Yellow, Brown, and White are the colors of Dairy Box Store branding.

3 of 4

	Present Value of Cash Flows	NPV	IRR	Payback Period (Years)	Profitability Index
YEAR 10 1,897,618.23	3,063,255.15	2,478,155.15	51.67%	4.86	5.24
YEAR 10 1,897,618.23	2,013,726.28	1,428,626.28	29.68%	6.68	3.44
YEAR 10 1,897,618.23	2,163,658.98	1,578,558.98	32.07%	6.47	3.70
YEAR 10 1,897,618.23	2,313,591.67	1,728,491.67	34.67%	6.26	3.95

INITIAL INVESTMENT FOR A FULL-SIZE



Name of Fee	Cost** (PHP)
Store Rent & Other Fees/Deposits	58,000.00
Leasehold Improvements	140,000.00
Equipment, Fixtures, Furniture, Menu Boards, Graphics	312,000.00
Smallwares	8,100.00
Storefront Signage	24,000.00
Business Licenses	12,000.00
Initial Training	free
Opening Supplies	3,500.00
Insurance	3,500.00
Grand Opening Advertising	24,000.00
Estimated Total Capital Investment (excluding Real Estate)	585,100.00

*approximately

**cost may vary depending on location


POOL OF TECHNICAL EXPERTS

Equally important as investing in superior breeding stocks and optimal equipment and other physical properties are capitalizing on the know-how and technical knowledge in dairy farming. The team of experts and extension workers of the DA-Philippine Carabao Center shall provide for your needs on practical expertise. Listed below are the DA-PCC units to provide an array of support for your dairy farm start-up:

Dairy Herd Acquisition	Operations Group	Edwin C. Atabay Scientist II Head, Operations
Farm Management and Veterinary Support Services	National Dairy Business Hub (NDBH)	Cyril P. Baltazar Farm Superintendent II NDBH Coordinator
Feeding Management/ Forage Management	Production Systems and Nutrition Section (PSNS) /Gene Pool	Mary Rose D. Uy-De Guia Senior Science Research Specialist Head, PSNS Lawrence P. Belotindos Science Research Specialist I Head, Gene Pool
Breeding/Artificial Insemination	Animal Breeding and Genetics Section (ABGS)/ Reproduction and Physiology Section (RPS)	Ester B. Flores Scientist I Head, ABGS Excel Rio S. Maylem Senior Science Research Specialist Head, RPS
Dairy Business Feasibility/ Operational and Financial Status Check	Monitoring and Business Planning Support Section (MBPSS)	Pauline A. Maramag Project Evaluation Officer II Head, MBPSS
Milk Handling/Milk Processing/Trade and Marketing	Carabao Enterprise Development Section (CEDS) Product Development and Innovation Unit Processing and Marketing Unit (PMU)	Patrizia Camille O. Saturno Science Research Specialist II Head, CEDS Teresita M. Baltazar Science Research Specialist I Head, PDIU Marivic A. Orge Project Development Officer II Manager, CDCPF Jeraldin S. Torres Marketing Manager Manager, Milka Krem Outlet
Information on Training and other Services Provided by DA-PCC	Knowledge Management Division	Khrizie Evert M. Padre Information Officer II Head, Learning Events Coordination Section

You can reach our pool of technical experts at:

 (044) 456 0731 to 34

 (044) 456 0730

 oed@pcc.gov.ph

Dairy BOX



TESTIMONIAL

“

Nagsimula ang aming dairy box dahil mayroon kaming mga dairy farmers na araw-araw kumukuha ng carabao milk at prinoprocess namin ito sa tulong ng DA-PCC at ibinebenta naming sa aming mga dairy outlet at mga paaralan. Noong 2018 nang i-encourage kami ng DA-PCC through Dr. Caro Salces na mag-invest sa dairy box. Then nag-open kami sa Carmen, Bohol at ICM Tagbilaran City, Bohol sa tulong ng DA-PCC. Kumita kami at nai-address din ang lumalaking milk production namin. Taong 2019 naman nang ginawa naming Dairy Box Ubay yung dairy outlet namin at mas lalong lumaki ang sales namin dahil attractive na at pang high quality yung local dairy product namin. Tinulungan kami ng DA-PCC na makasecure ng space sa Ubay para sa dairy kiosk at sa mga equipment.

Maraming naitulong ang DA-PCC sa coop namin, kasama na doon ang mga training, immersion sa ibang coop at marami pang iba. Ang DA-PCC din ang nag-encourage sa amin na mag-open ng mga dairy box at kasama din sila sa planning nito. Kung may problema kami, lumalapit kami sa kanila at tumutulong sila. Masaya na kami ngayon kasi lumalaki na ang aming dairy coop. Natutulungan natin ang dairy farmers sa pagbili ng gatas sa mataas na presyo. Naging millionaire coop na kami, lumaki na ang aming dairy enterprise. Marami ng taong natutulungan, dumami na ang nabigyan ng trabaho at may kita na sila.

“Our dairy box started because we have dairy farmers who collect carabao’s milk daily, which we process with the help of DA-PCC and sell in our dairy stores and in schools. In 2018, DA-PCC encouraged us, through Dr. Caro Salces, to invest in the Dairy Box. Then, with the help of DA-PCC, we opened a Dairy Box in Carmen and ICM Tagbilaran City in Bohol. We generated income and also addressed our growing milk production. It was in 2019 when we established our dairy outlet to Dairy Box Ubay, and our sales increased even more because our local dairy products are now attractive and of high quality. Along the way, DA-PCC assisted us in securing a space for the dairy kiosk and the necessary equipment.

DA-PCC has helped us a lot in our cooperative, including training, immersion in other coops, and many other services. The DA-PCC also encouraged us to open dairy boxes, and they are also included in its planning. Our dairy coop is now expanding, which makes us happy. We help the dairy farmers by buying milk at a high price. We have become a millionaire cooperative; our dairy enterprise has grown. Many people have been helped, have been given jobs, and now have a source of income.”

”

ROGER DAMALERIO

Dairy Box / Ubay, Bohol / 48 years old

PROFITABILITY OF ALL MODULES IN

MODULE	Initial Investment (PHP)	Daily Net Income (PHP)
5-Cow Start-up Dairy Buffalo Farm Business	779,018.58	1,407.04
10-Cow Start-up Dairy Buffalo Farm Business	1,935,910.16	2,837.33
15-Cow Start-up Dairy Buffalo Farm Business	2,314,177.54	4,692.60
20-Cow Start-up Dairy Buffalo Farm Business	3,008,600.32	3,117.00
25-Cow Start-up Dairy Buffalo Farm Business	3,634,407.00	4,227.93
50-Cow Start-up Dairy Buffalo Farm Business	7,153,355.56	12,919.26
Small-scale Dairy Processing Facility Business	7,441,992.87	3,599.22
Kardeli Meat Products Retail Business	870,910.05	1,324.64
Dairy Box One-Stop Shop Business	1,466,500.00	2,116.51
Vermicast Production Business	821,287.14	19,666.11 (monthly)
Corn Silage Production Business	1,274,000.00	125,347.88 (Per Cycle)

INDICATORS

THE PORTFOLIO

NPV (PHP)	IRR (%)	Payback Period (years)	Profitability Index
890,034.65	28.57%	5.26	2.40
1,424,462.57	23.94%	6.08	1.88
3,442,615.76	32.52%	4.78	2.85
158,033.27	14.86%	7.10	1.07
460,745.64	15.98%	7.14	1.16
8,236,572.28	28.68%	5.14	2.45
1,864,074.24	22.47%	4.53	1.33
1,872,655.37	102.47%	2.13	5.68
2,478,155.15	51.67%	4.86	5.24
703,700.97	40.04%	3.81	2.30
1,289,698.20	37.35%	2.98	2.12

DA-PCC

available technology

karabun
PCC Milky Bun

Karabun is an 80g bun that has been enhanced with nutrients from fresh carabao's milk and can provide the same nutritious value as a glass of milk. The creation of this product attempts to alleviate the alarming prevalence of malnutrition in the country, where 95 children die every day and one-third of all Filipino children are stunted. It is comparably more nutritious than common bread buns available in the market.

"Kardeli" is a premium grade carabao meat produced from young carabao that have been expertly bred and raised. This comes in the form of premium choice cuts, gourmet sausages, and ready-to-cook meals, all of which have lower cholesterol contents for the market. This product was developed in response to the public's view that carabao meat is tough and of inferior quality because it is fed an inadequate diet and slaughtered when the animal reaches retirement age or is otherwise unproductive. Compared to cattle meat, carabao meat is said to contain more protein and minerals and fewer cholesterol and calories.



gies

Nyogurt

Nyogurt is a variety of yogurt made by fermenting coconut milk and carabao's milk with a yogurt culture for enhanced nutritive properties. The coconut milk contributes to improved sensory quality and flavor to the yogurt. This product was developed to compensate for the limited local supply of carabao's milk and to increase demand for coconut-based products. Since 90% of 3.4 million coconut farmers in the Philippines live below the poverty line and 99% of total milk supply are imported, more livelihood opportunities are available to the farmers of both commodities.

Karapops

Kara Pops are bite-size milk candy balls in assortment of fruit flavors that is appealing to kids. This is an innovation of the classic Pastillas de Leche and turning it to an even more fun, fruity and exciting product. More nutritious than existing milk candies, the Kara pops has higher nutritional value from the fresh carabao's milk used. Its formulation has longer shelf life than the Pastillas de Leche and does not need refrigeration for storage. Flavors include Plain, Chocomilk, Melon, Strawberry, Mango, and Blueberry.

A2Choice

A2 Choice is a genotyping test for A1 and A2 milk beta-casein variants using DNA marker technology for cattle and buffaloes. Through genetic testing on samples like blood, semen, or tissue, the type of milk the cow produces can be determined. This seeks to reduce the incidence of milk intolerance caused by the beta casein milk variant (A1 Milk) and to genetically select cows and breeding bulls that contain the A2 variant to generate future cows that are homozygous for the A2 genotype.

INVENTORY OF BEST PRACTICE

STAFF

- 1** **Following appropriate and proper attire/uniform (no slippers etc.)**
Pagsunod sa angkop at tamang pananamit.
- 2** **Wearing of identification Card or name tag**
Pagsusuot ng ID at name tag
- 3** **Proper haircut and grooming for men, and tied hair for women**
Wasto at maayos na gupit para sa mga lalaki at nakataling buhok para sa mga babae
- 4** **Greets or welcomes customers upon entry**
Pagbati sa mga bisita at mamimili
- 5** **Uses suggestive selling**
Panghihikayat sa mga mamimili

PRODUCT HANDLING AND DISPLAY MANAGEMENT

- 1** Ensuring sufficient product display and inventory
Pagkakaroon ng sapat na produkto at imbentaryo
- 2** No damaged or expired products are displayed
Walang mga nasira o nag-expire na produkto ang nakadisplay
- 3** Placing products according to the planogram
Paglalagay ng mga produkto ayon sa planogram
- 4** Placing of correct labels and price tags
Paglalagay ng tamang presyo o labels
- 5** Maintaining the proper temperature of the chiller at 0 to -4°C and freezer temperature at -18° to -22°C
Pagpapanatili ng maayos na temperatura ng chiller na dapat ay nasa 0 hanggang -4 °C at temperatura ng Freezer na -18° hanggang -22 °C.
- 6** Presentable trays: free from molds, marks, rust, etc.
Kaaya-ayang mga lalagyan: walang molds, marka, kalawang, atbp.
- 7** Periodic cleaning and maintaining the proper condition of display chillers.
Pagsasagawa ng napapanahong paglilinis at pagpapanatili sa maayos na kundisyon ng display chillers.
- 8** Implementing demand forecasting to avoid over and under stock situation (with proof of implementation)
Pagpapatupad ng demand forecasting upang maiwasan ang over and under stock (may angkop na katunayan)

INVENTORY OF BEST PRACTICES

STORE INTERIOR

- 1 Display of legal permits and certifications visible to customers**
Pagpapaskil ng mga legal na permit at sertipiko sa lugar na nakikita ng mga mamimili
- 2 Visible store signages are placed**
Paglalagay ng mga karatula sa mga lugar na madaling makita
- 3 Maintaining a clean and organize station without any unnecessary clutter**
Pagpapanatili ng maayos at malinins na istasyon ng walang anumang naka-kalat na ibang bagay
- 4 Shelves and cabinets are free from marks and dust**
Ang mga istante at lalagyan ay walang mga marka at alikabok
- 5 Counter and other furnitures are properly placed and in good condition**
Ang counter at iba pang muwebles ay maayos na nakalagay at nasa mabuting kondisyon
- 6 There is no foul smell within the store premises**
Walang hindi kaaya-ayang amoy sa loob ng tindahan
- 7 Clean floor and ceiling with no cobwebs**
Malinis na sahig at kisame na walang agiw
- 8 Lights and fixtures are in good condition**
Ang mga ilaw ay nasa mabuting kalagayan
- 9 Proper ventilation and sufficient airconditioning (store and stock room)**
Wastong bentilasyon at sapat na hangin (store at stock room)
- 10 Bins are available for proper waste segregation**
Mayroong mga basurahan para sa wastong paghihiwalay ng basura
- 11 Clean restroom with no foul smell and fixtures in good condition**
Malinis na banyo na walang mabahong amoy at mga muwebles na nasa mabuting kondisyon



STORE EXTERIOR

- 1** **Clean walls and windows**
Malinis na mga pader at bintana
- 2** **No cobwebs in the corners and ceiling**
Walang agiw sa mga sulok at kisame
- 3** **Signages are visible and in good condition**
Ang mga karatula ay nakikita at nasa tamang kondisyon
- 4** **Pavements and landscapes are well-maintained**
Ang mga semento at halaman ay napapanatiling maayos
- 5** **Bins are available for proper waste segregation**
Mayroong mga basurahan para sa wastong paghihiwalay ng basura

SUPPLIES AND INVENTORY MANAGEMENT

- 1** **Complete and updated record of stock room supplies and inventory**
Kumpleto at updated ang talaan ng mga suplay at imbentaryong nasa bodega
- 2** **Proper and updated record of used items**
Tama at updated na talaan ng mga nagamit na suplay
- 3** **Proper and updated record of purchased items**
Tama at updated ng talaan ng mg biniling gamit
- 4** **Implementation of 5s: Sort, Set, Shine, Standardize, and Sustain**
Implementasyon ng 5s: Ayusin, isangayon, linisin, maglagay ng pamantayan at panatilihin

INVENTORY OF BEST PRACTICES

MARKETING AND PROMOTION

- 1** **Information is complete and updated**
Ang impormasyon ay kumpleto at updated
- 2** **Availability of menu in online platforms**
Pagkakaroon ng menu sa mga online platforms
- 3** **Frequency of posting**
Dalas ng pagpo-post
- 4** **Responsiveness to inquiries should not be lower than 80%**
Kakayahang tumugon sa mga katanungan ay hindi dapat bababa sa 80%

SAFETY AND HEALTH

- 1** **Sufficient and well-maintained fire extinguishers are placed with proper records of monitoring**
Maglagay ng sapat at maayos na mga fire extinguisher na may angkop na talaan
- 2** **No items or equipment blocking the path to the emergency exits**
Walang mga bagay o kagamitan na humaharang sa daan patungo sa mga emergency exit
- 3** **Visible signages for staff and customers (fire extinguisher, emergency exits, etc.)**
Ang mga karatula (fire extinguisher, emergency exits, etc.) ay nakalagay sa lugar na nakikita ng mga empleyado at mamimili
- 4** **Sufficient and well-maintained emergency lights are placed**
Nakalagay ang sapat at maayos na mga emergency light
- 5** **The employees have sufficient training on emergency preparedness**
Ang mga empleyado ay may sapat na pagsasanay tungkol sa emergency preparedness
- 6** **A complete and accessible first aid kit within the store premises**
Kumpleto at madaling makuha ang kit para sa paunang lunas sa loob ng tindahan
- 7** **The Staff are sufficiently trained in providing first aid**
Ang mga empleyado ay may sapat na pagsasanay sa pagbibigay ng paunang lunas
- 8** **Sufficient and functional CCTVs are properly placed within store premises**
Mayroong sapat at gumaganang mga CCTV na maayos na nakalagay sa loob ng tindahan

DOCUMENTS/RECORDS

- 1** **Daily Product Inventory** -one in the morning before opening and one in the afternoon after the store closes, to balance the products sold and cash collected

Araw-araw na Imbentaryo ng produkto - isa sa umaga bago magbukas at isa sa hapon pagkatapos magsara ang tindahan, upang mabalanse ang mga produktong naibenta at perang nakolekta
- 2** **Monthly supplies and raw materials inventory**

Buwanang imbentaryo ng suplay at raw materials
- 3** **Temperature Monitoring Form - for proper product handling**

Temperature Monitoring Form - para sa wastong paghawak ng produkto
- 4** **Washroom Cleaning Checklist**

Listahan sa paglilinis sa palikuran
- 5** **Product Receiving Logbook - record of received stocks**

Product Receiving Logbook - talaan ng mga natanggap na stock
- 6** **Customer Feedback Form**

Feedback form para sa mga mamimili
- 7** **Daily Sales Remittance Logbook**

Araw-araw na talaan ng remitans ng benta

TRIVIA

Kalaboy and Kalagirl are the official Mascot of Dairy Box.

4 of 4

GLOSSARY

BUSINESS TERMS

Annual Net Cash Flow refers to the difference between cash inflows and outflows of the business in a year.

Capital Investment refers to money invested in a business with the understanding that the money will be used to purchase fixed assets, rather than used to cover the business's day-to-day operating expenses.

Direct Labor includes the salaries paid and other benefits such as meals and bonuses provided for farm workers.

Direct Material includes feeds, forages, legumes, vitamins, and supplements which are directly involved in maintaining each animal.

Earnings after Interest refers to the income derived from the investment after deducting the interest expense of the credit financing.

FarmNet Income/Loss or Net Income/Loss is the total return after deducting all expenses incurred during the period.

Hurdle Rate is the minimum rate of return on a project or investment required by a manager or investor. The hurdle rate denotes appropriate compensation for the level of risk present; riskier projects generally have higher hurdle rates than those that are deemed to be less risky.

Inflation Rate is the rate at which the general level of prices for goods and services is rising and, consequently, the purchasing power of currency is falling.

Interest Expense is a non-operating expense which represents interest payable on any borrowings – bonds, loans, convertible debt or lines of credit.

Interest Payment refers to the payment amount determined by the interest rate on an account.

Interest Rate is the amount charged, expressed as a percentage of principal, by a lender to a borrower for the use of assets.

Internal Rate of Return (IRR) is a metric used in capital budgeting measuring the profitability of potential investments. Internal rate of return is a discount rate that makes the net present value (NPV) of all cash flows from a particular project equal to zero.

Loan Amortization Schedule is used to determine loan amortization payments and the allocation of each payment to interest and principal.

Meat Revenue represents the amount received by selling the animals either for slaughter or for raising purposes.

Net Present Value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows. NPV is used in capital budgeting to analyze the profitability of a projected investment or project. It is computed by discounting annual cash flow using a hurdle rate of 16 %.

Other Revenues is maintained to account for the sale of various farm by-products like manure, used sacks, etc.

Overhead Expense are expenses related to maintaining the farm but are not classified as direct materials and direct labor.

Payback Period is the amount of time it takes for a project's cumulative net cash inflows to recoup the initial investment.

Present Value of Cash flow refers to the value today of a cash flow to be received at a specific date in the future, accounting for the opportunity to earn interest at a specified rate.

Principal Payment is a payment toward the amount of principal owed.

Profitability Index is capital budgeting tool, defined as the present value of a project's cash inflows divided by the absolute value of its initial cash outflow.

OF TERMS

Projected Cash Flow shows the expected amounts of money that will come into a business along with what will go out as expenses.

Projected Income Statement is a projection schedule that looks at the money the business will gain over a specific period, normally one year, minus anticipated expenses for that period.

Property, Plant and Equipment is a summation of all a company's purchases of property, manufacturing plants and pieces of equipment to that point in time, less any amortization.

Raw Milk Sales is the total milk revenue received from selling the milk produced by the cows.

Return on Investment is measure of a firm's overall effectiveness in using its assets to generate returns to common stockholders.

Selling and Admin Expense are costs incurred for marketing and distribution of the milk; managing and record keeping of the farm.

Total Expense covers all the expenses incurred to operate and maintain the farm. This includes Direct Material, Direct Labor, and Overhead.

Total Farm Revenues is the summation of all revenue items including milk, meat, manure, other revenue, and Unrealized Gain on Change in FV of Biological Assets. Total Initial Investment is the total amount required to start a business.

Unrealized Gain or Change in FV of Biological Asset is in compliance with Philippine Accounting Standards 41 titled Agriculture, the increase or decrease in total value of herd is estimated at year-end and is treated as other non-cash income.

Working Capital refers to the capital of a business that is used in its day-to-day trading operations, calculated as the current assets minus the current liabilities.

DAIRY BUFFALO FARM MANAGEMENT TERMS

Breedable Female is any mature female carabao that is ready for breeding.

Breeding Stocks is a group of carabao used for the purpose of planned breeding. This includes heifer and cow

Bull is a breeding male carabao aged 2 years old and above.

Calf is a young carabao of either sex and below 1 year of age.

Calving is the act of giving birth.

Calving Interval refers to the period of time between two successive calving. The shorter the calving interval, the higher is the reproductive efficiency of the farm. The ideal calving interval in a dairy buffalo farm is a minimum of 380 days and a maximum of 410 days. This is broken down into 320 days gestation period and 60-90 days service period.

Cow is a mature female carabao that has already given birth.

Gestation Period also known as gestation length. It is the duration from the time of fertilization until parturition (calving), which on the average is 320 days (310-330 days) and 312 days (295-320 days) for the swamp and dairy buffalo types, respectively.

Heifer is a female carabao aged 2 years and above that has not yet given birth.

Lactation Days also known as lactation period. Refers to the period of milk production and suckling. The latter condition is eliminated in dairy farms when the calf is immediately weaned from the dam right after calving. The average length of lactation in dairy buffaloes in DA-PCC herds is 265 days, which ranges from 200-359 days.

Parity refers to the number of times a dam has given birth.

Yearling is a young carabao of either sex and aged one-year-old to 2 years old.

ZADIESHAR G. SANCHEZ **Project Development Officer V** **Chief, Planning and Information Management Division**

Mr. Zadieshar G. Sanchez took his BS Accountancy degree from Central Luzon State University and became a Certified Public Accountant in 2012. He earned his master's degree in Agricultural Economics minor in Environmental Science at the University of the Philippines Los Baños in 2022. He entered DA-PCC in 2014 and assisted in the establishment of the newly created Business Development and Commercialization Unit under the Planning and Special Projects Division. He was tasked to develop various financial reporting systems, monitoring dashboards, and assisted in the creation of several business models and technology economic valuations which are now being used or adopted by the stakeholders. He also established the DA-PCC's Internal Audit Section in 2016 where internal controls were assessed and installed agency-wide to ensure assets are safeguarded, financial reports are accurate and reliable, laws are followed, managerial policies are complied with, and most importantly, to evaluate value-for-money by ensuring that operations are efficient, effective, economical, and ethical. He was the lead author of the prototype publication of the Carabao Business Portfolio. He also concurrently serves the agency as the OIC-Chief of the Administrative and Financial Management Division where systems, manuals, and new programs are being developed.

JAN CZARINA M. SALAS **Former Project Evaluation Officer III**

Jan CZarina M. Salas worked as Project Evaluation Officer III under the Planning and Information Management Division of DA-PCC. She was part of the pioneering team of staff that launched the Business Development and Commercialization unit under the said division, which trailblazed the provision of business workshops, and the creation of business models, dashboards, and operations guidelines for cooperatives and dairy entrepreneurs. She spearheaded the implementation of the Dairy Box program strategy wherein cooperative operators are provided with marketing assistance to advocate standard operations and quality dairy buffalo products. She is currently studying Master's in Business Administration while also being an entrepreneur, and a professional illustrator and graphic designer.

JOSHUA G. VILLANUEVA **Accountant II**

Joshua G. Villanueva used to work as Financial Analyst under the Business Development and Commercialization Unit of the DA-Philippine Carabao Center. He is a Certified Public Accountant and currently studying for his Master's in Business Administration at Central Luzon State University. He provided business financial analyses, created various business models, organized business training, developed monitoring dashboards, and gave business assistance to clients. He was the point person for the available government loan programs available for carabao industry players. He also worked as an accountant at Philippine Rice Research Institute. He now handles the monitoring and coordination of the 500-Million PL480 Project entitled "Intensified Community-based Dairy Enterprise Build-Up", develops performance-based budgeting of the agency, and collects data for the Carabao Industry Fact Sheet/Outlook. He was recently appointed as an Accountant II of DA-PCC.

ANGELIQUE ANLOCOTAN-OREJANA **Former Business Development Analyst**

Ms. AngeliQue Anlocotan-Orejana is a graduate of BS in Business Administration major in Economics at Central Luzon State University and has units in Masters of Science in Economics from Polytechnic University of the Philippines prior moving to New Zealand in 2022. She worked as Business Development Analyst under the Planning and Information Management Division from 2016 to 2019. She was one of the brains of Business Development and Commercialization Unit who developed financial monitoring tools now coined as "Dashboards". She spearheaded the development of Strategic Performance Management System (SPMS) Dashboard, and she facilitated the implementation of 6 Value Chain Projects across the country. Currently, she is working as Operations Administrator of Alliance Group Limited in New Zealand, overseeing the export shipments of the company.

PROFILE

PAULINE A. MARAMAG

Project Evaluation Officer II Head, Monitoring and Business Planning Support Section

Ms. Pauline A. Maramag is a Certified Public Accountant since 2018 who took her BS in Accountancy degree at Central Luzon State University and is currently taking up her Master of Business Administration degree at the same university. She started as a Financial Analyst and was promoted to Science Research Specialist II in the Business Development and Commercialization Unit (now Monitoring and Business Planning Support Section) who is responsible for the regular audit and monitoring of the production and business dashboards of the clients and agency's national headquarters and 12 regional centers, crafting of business plans, financial projections, feasibility studies, and profitability analysis for investment portfolios and industry proposals, technology valuation for commercialization, and the writing and conduct of researches. She led the launching of the Youth Development Program to prepare the second liners in Carabao entrepreneurship. She currently leads the MBPSS with both agency performance monitoring and client business planning tasks and initiatives.

QUEENIE B. RUIZ

Science Research Specialist II

Queenie B. Ruiz obtained her Bachelor of Science in Accounting Technology from Central Luzon State University in 2015, and her Bachelor of Science in Accountancy from Dr. Gloria D. Lacson Foundation Colleges Inc. in 2017, the same year that she passed the CPA Licensure Exam. She previously held the position of branch head in a real estate corporation for almost four years, where she was in charge of overseeing the day-to-day operations of the company. She now worked as a Science Research Specialist II at the Monitoring and Business Planning Support Section, where her responsibilities include creating investment portfolios, conducting financial performance analyses, and auditing DA-PCC Institutional Herds, Processing and Marketing Outlets, and DA-PCC Clients along the Value Chain.

GISELLE M. SACUPASO

Financial Analyst I

Giselle M. Sacupaso is a Financial Analyst at the Monitoring and Business Planning Support Section under the Planning and Information Management Division of DA-PCC. She is a graduate of BS Accounting Technology at Central Luzon State University and took BS Accountancy at Dr. Gloria D. Lacson Foundation Colleges, Inc. She was assigned to monitor the Processing and Marketing Outlet (PMO) Dashboard of DA-PCC Regional Centers and visited different dairy boxes and client PMOs across the country to audit their stores and processing facilities. She is also responsible for auditing their financial statements. She also helps the Internal Audit Section in auditing the DA-PCC Regional Centers as well as the center's Institutional Herds and PMOs.

ERICKA JOYCE L. MALLARI

Former Internal Auditor I

Ericka Joyce L. Mallari is a graduate of BS Mathematics major in Business Application at Bulacan State University. She is worked as an internal auditor in the Internal Audit Section. Part of her work is to perform a value-for-money audit of DA-PCC's 12 regional centers, including the Institutional Herd and Processing and Manufacturing Outlet. She also assists the Business Development and Commercialization Unit (now Monitoring and Business Planning Support Section) in auditing the DA-PCC-managed cooperatives' dairy boxes, processing, and manufacturing facilities.

TECHNICAL ADVISERS

MS. MINA P. ABELLA

Former Head,
Product Development and Innovation Section

DR. CYRIL P. BALTAZAR

Farm Superintendent II,
National Impact Zone

MS. CHARITY I. CASTILLO

Science Research Specialist I,
Production Systems and Nutrition Section

MS. ROSE U. DE GUIA

Senior Science Research Specialist,
Production Systems and Nutrition Section

DR. ESTER B. FLORES

Scientist I,
Animal Breeding and Genomic Section

MS. MARIVIC A. ORGE

Project Development Officer II,
Central Dairy Collecting and Processing Facility

DR. ERIC P. PALACPAC

Information Officer V,
Knowledge Management Division

DR. ANNABELLE S. SARABIA

Former Chief,
Research and Development Division

DR. EUFROCINA P. ATABAY

Scientist II,
Reproductive Biotechnology and Physiology Section

MR. JOEL F. CABADING

OIC-Center Director,
DA-PCC at MMSU

DR. LIBERTADO C. CRUZ

Former Executive Director,
DA-PCC

DR. ARNEL N. DEL BARRIO

Former Executive Director,
DA-PCC

DR. CLARISSA A. ODSIGUE

Scientist Research Specialist II,
National Impact Zone

DR. WYNNE A. PAGADUAN

Training Specialist III,
Biosafety and Environment Section

DR. CARO B. SALCES

Deputy Executive Director for Admin and Finance,
DA-PCC

MS. JERALDIN S. TORRES

Marketing Manager,
Milka Krem Outlet

MS. ESTELLA P. VALIENTE

Science Research Specialist II,
Socio-Economics and Policy Research Section

GOT QUESTIONS OR
SUGGESTIONS?

CONTACT US

 www.pcc.gov.ph

 [DA-Philippine Carabao Center](#)

 [Philippine Carabao Center](#)



DA-PCC NETWORK

DA-PCC AT MARIANO MARCOS STATE UNIVERSITY

Batac City, Ilocos Norte
Mobile No.: (+63) 919.224.9062
Email: pcc-mmsu@pcc.gov.ph

DA-PCC AT CAGAYAN STATE UNIVERSITY

Tuguegarao City, Cagayan
Telephone No.: (+63) (078) 377.9315
Mobile No.: (+63) 977.806.4930
Email: pcc-csu@pcc.gov.ph

DA-PCC AT DON MARIANO MARCOS MEMORIAL STATE UNIVERSITY

Rosario, La Union
Mobile No.: (+63) 920.982.9666
Email: pcc-dmmsu@pcc.gov.ph

DA-PCC AT CENTRAL LUZON STATE UNIVERSITY

Science City of Muñoz, Nueva Ecija
Telephone No.: (+63) (044) 940.3061
Mobile No.: (+63) 968.853.5754
Email: pcc-clsu@pcc.gov.ph

DA-PCC AT UNIVERSITY OF THE PHILIPPINES AT LOS BAÑOS

Los Baños, Laguna
Telephone No.: (049) 536.2729
Email: pcc-uplb@pcc.gov.ph

DA-PCC AT VISAYAS STATE UNIVERSITY

Baybay City, Leyte
Mobile No.: (+63) 908.895.2461
Email: pcc-vsua@pcc.gov.ph

DA-PCC NATIONAL HEADQUARTERS AND GENE POOL

Science City of Muñoz, Nueva Ecija
Telephone No.: (+63) (044) 456.0731
Email: oed@pcc.gov.ph

DA-PCC AT WEST VISAYAS STATE UNIVERSITY

Calinog, Iloilo
Telephone No.: (+63) (033) 323.4781
Mobile No.: (+63) 999.991.6115 |
(+63) 928.945.7760
Email: pcc-wvsu@pcc.gov.ph

DA-PCC AT LA CARLOTA STOCK FARM

La Granja, La Carlota City, Negros Occidental
Mobile No.: (+63) 919.006.8392
Email: pcc-lcsf@pcc.gov.ph

DA-PCC AT UBAY STOCK FARM

Ubay, Bohol
Mobile No.: (+63) 997.111.7680 |
(+63) 945.119.3998 | (+63) 966.330.2214
Email: pcc-usf@pcc.gov.ph

DA-PCC AT MINDANAO LIVESTOCK PRODUCTION CENTER

Kalawit, Zamboanga del Norte
Mobile No.: (+63) 912.784.4668 |
(+63) 935.387.9652
Email: pcc-mlpc@pcc.gov.ph

DA-PCC AT CENTRAL MINDANAO UNIVERSITY

Maramag, Bukidnon
Mobile No.: (+63) 939.916.9719 |
(+63) 966.645.6292
Email: pcc-cmu@pcc.gov.ph

DA-PCC AT UNIVERSITY OF SOUTHERN MINDANAO

Kabacan, North Cotabato
Mobile No.: (+63) 919.397.0872 |
(+63) 920.621.9722
Email: pcc-usm@pcc.gov.ph

Scan the following QR codes to visit our Knowledge Portal and experience a virtual tour to the DA-PCC National Headquarters and Genepool

DA-PCC K-Portal



The DA-PCC Knowledge Portal (or simply K-Portal) serves as a hub or a one-stop e-platform for all knowledge products (in various format) produced by the agency through its Knowledge Management Division.

DA-PCC Virtual Tour



To know more about DA-PCC's services and facilities, you can now explore the National Headquarters and Genepool via virtual tour which can also be accessed in the agency's official website.