

New Dairy Manufacturing project

Dairy Factory Design

New Dairy Factory Cost

Dairy Factory Financial Model

Dairy Factory feasibility study

Establish the main costs in order to establish the Capital investment required for land, buildings, equipment, infrastructure, working capital, manufacturing and marketing cost, and financial projections to work out the viability of the Dairy project. Once its viability is established, a detailed project report should include the following ten steps for project planning and implementation:

First Step: Appoint a consultant to plan the project in relation to the proposed Dairy market, design the dairy plant, and select an architect and a structural consultant. Prepare tender documents for civil works, plant and equipment.



Second Step: After quantifying the product mix, work out the process flow diagram showing the material balances.



Third Step: Formulate dairy plant specifications. The proposed design should include:

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- Dairy Factory pace required (Floor Area and ceiling heights).
- List the Dairy Plant and equipment, their specifications and capacities.
- Prepare the Dairy Factory plant layout, including process, service and storage.
- Provide for Dairy Factory service requirements.



DAIRY HYGIENIC DESIGN



Fourth Step: Prepare for Dairy Factory construction:

- Selection of the site;
- Survey the availability of essential services like water, effluent, electricity, road links, communications, etc; and,
- Tender for civil works, equipment supply and installation, and the subsequent award of contracts.



Fifth Step: Formulate the marketing plans for design of brand name, logo, packaging, procurement of raw materials, packaging and labelling materials. Appoint the core staff, including Factory Manager, Quality Manager, Engineering manager, finance and administration and sales marketing personnel.



Sixth Step: Arrange for sanctions/approvals/clearances by the Central/State/local statutory authorities.



Seventh Step: Coordinate the civil construction work with the suppliers for timely installation of the dairy equipment and machinery.



Eighth Step: Complete the civil construction to the stage when equipment can be installed.



Ninth Step: Select and appoint supervisors and the operating staff. Erection, installation and commissioning of the plant and machinery.

Tenth Step: Place the products in the market through well-established marketing channels.

Marketing and Pricing of Milk and Milk Products

The price of a product in the market is an important factor influencing consumer demand. Hence to be marketable, a dairy product must be competitively priced. This implies that the costs involved in raw material procurement, processing, packaging, storage, marketing and distribution must be kept as low as possible. Generally, the price of a dairy product will involve the availability and costs of the following:

- a. Raw milk
- b. Raw milk collection and transportation
- c. Cost of processing
- d. Packaging
- e. Marketing
- f. Sales & distribution
- g. Utilities
- h. Labour
- i. Taxes and tariffs
- j. Insurances

Profit margins at each stage of the marketing channel (Collection, Processing and marketing margins) need to be established.

In order to arrive at a realistic costing of a product, all those elements involved at each stage must be calculated on a unit basis

The cost can be broadly categorised as fixed costs and variable costs. Fixed costs include things like depreciation of equipment and buildings while variable cost include direct expenses such as raw material; marketing expenses; overhead costs [labour and personnel expenses]

It is important that all the cost elements are included in the calculation of the market value of the product. Overpricing can lead to un-competitiveness of the product while under-pricing can cause financial loss and eventual collapse of the business.

4. Marketing Information System and Research

Information is required at all levels in the marketing channel. Before you decided to process and market any dairy product, it is important to know the potential market for each particular product. This is important to enable the processor to know which types and when, where and how much of each product to manufacture and market. It is very crucial because unless goods can be supplied in the right form, place and times, consumers may not be able to buy. This then requires securing and utilising market information.

Marketing information should address the following:

- Area to be covered
- Price information (Price variations, price for premium quality discount price etc.)
- Number and type of consumers (market segmentation)

- Current and future product supply levels
- Type and number of competitors

In the absence of comprehensive marketing information system such as is the case in many developing countries it may be necessary for each individual processor or through their organisation to organise the gathering and dissemination of such information. Short market survey and/or Consumer studies are useful tool for gathering such information.

Feasibility Study for Milk Marketing and Processing

Before one decides to invest in the business of milk marketing and/or processing one should carry out a feasibility study to establish the economic viability of the planned business. this should include a realistic business plan.

The essential elements of a feasibility study should include:

- Establishing the amount of milk to be manufactured into dairy products daily.
- Identify customers for milk products both in the home market and export.
- Establish the local raw milk quality, collection, cost price and availability.
- Establish who the local and import competitors are and their prices.
- Buy samples and review the quality and packaging designs
- Locate sources of energy (Gas, electricity, coal, wood and water etc)

Availability of potable water, electricity, gas and waste water are critical parameters based upon the volume to be produced

- Determine the capital investment required (be sure to include land, roads, building, equipment, power, gas, water and waste water).
- Prepare a business plan and Financial Model that will establish the viability of the Dairy project.

Guidelines for business plan preparation

In planning your business, you must examine four major areas:

1. Description of the business.
 - a. What type of business are you planning?
 - b. What product will you sell?
 - c. What type of opportunity is it (new, expansion, seasonal, year round?)
 - d. What are the opportunities for growth?
1. Marketing plan.
 - a. Who are your potential customers/
 - b. How will you attract and hold your share of the market?
 - c. Who are your competitors? How are their businesses prospering?
 - d. How will you promote your sales/
 - e. Who will be your suppliers?
 - f. Where will the business be located?
1. Organisation plan
 - a. Who will manage the business?
 - b. What qualifications will you look for in a manager?
 - c. How many employees will you need/
 - d. How will you manage finances?
 - e. How will you keep records?
 - f. What legal form of ownership will you choose and why?
 - g. What licences and permits will you need?
 - h. What regulations will affect your business?
1. Financial plan
 - a. What is your estimated business income for the first year?
 - b. What will it cost you to open the business?
 - c. What will be your monthly cash flow during the first year?
 - d. What sales volume will you need in order to make a profit during the first year?
 - e. What will be your break-even level of production?
 - f. What will be the capital value of your equipment/
 - g. What will be the total financial needs?
 - h. What will be the potential funding sources?
 - i. How will you secure loans?



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