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# *Introduction of Dairy Plant design and layout*

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# Outline

- Introduction
- Types of Dairies
- Importance of Dairy plant design
- Importance and economics of plant design
- Legal and commercial aspects of plant design
- Advantages of good plant layout



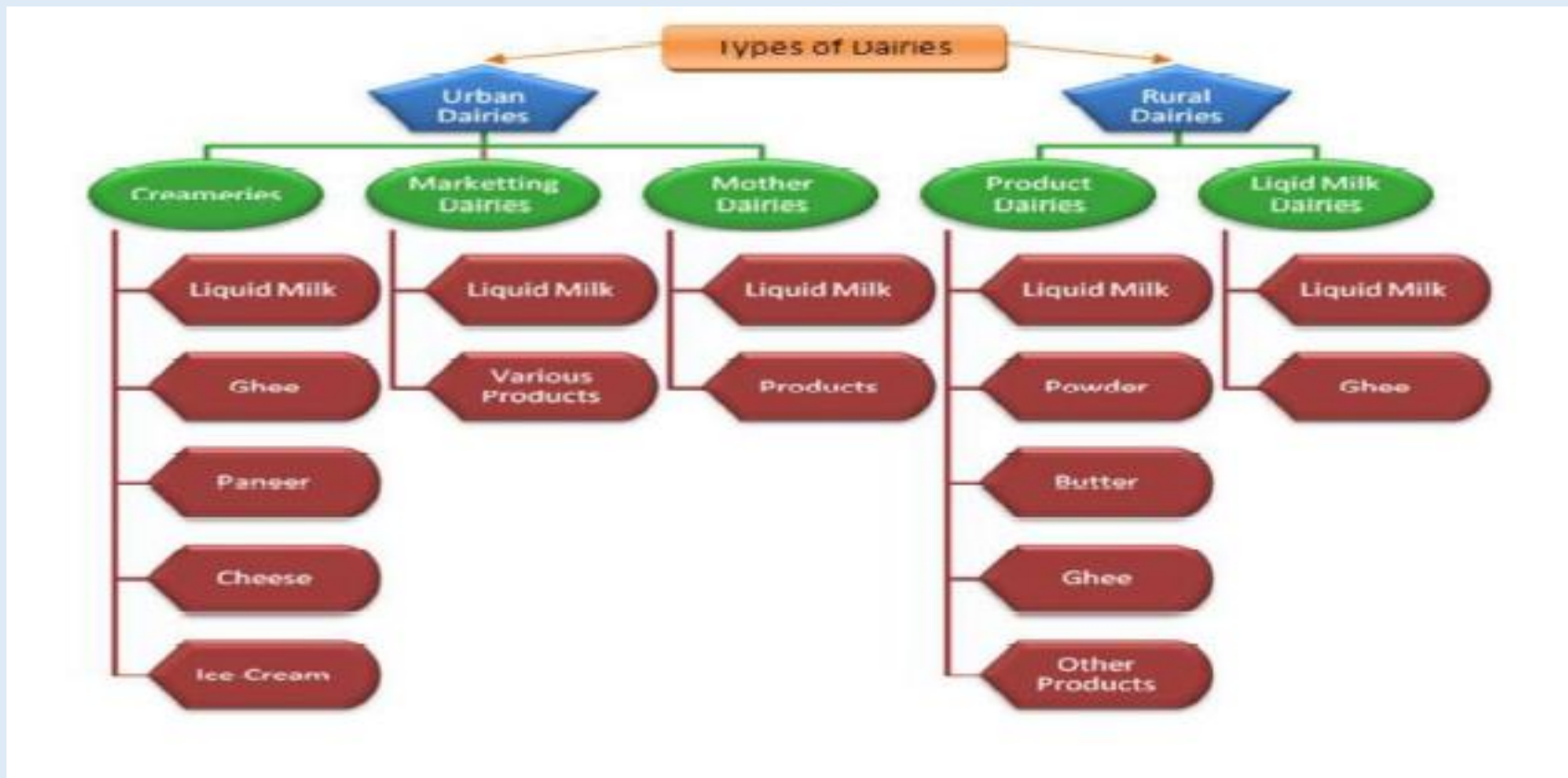
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## Introduction

There is a need for highest standard of hygiene. Milk is most suitable medium for the growth of microorganism, therefore every possible measure should be taken to reduce the possibility of contamination, especially after processing. A good layout design and use of proper materials and techniques make great contribution towards hygiene. The dairy layout needs careful thought and planning keeping in view manufacture of the products and their commercial aspects.



# Types of Dairies





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## Importance of Dairy plant design

Dairy Plant design, involves the estimation of capacity, process scheduling and proper layout so as to achieve the objective of handling milk at the least cost and greatest safety. However, the dairy industry and the plant design has to meet certain special requirements and need to be focused on these. The following are the few aspects that make the dairy industry as a unique one.



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## Importance and economics of plant design

The subject Dairy Plant Design and Layout is the designing of layout plan for a dairy plant, i.e., layout for different sections in the dairy building, equipment layout, laying of dairy machines in such a manner that it allows efficient and economical movement of men and material in the plant in each section. The subject contains several applications of fundamental topics, such as locations site selection, building materials, specific requirements of each section including service sections.



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## Legal and commercial aspects of plant design

Safety and good working conditions are very necessary in a proper plant layout. Minimized hazards at the working stations, in material handling, storage, maintenance operations and so on are features of good plant layout. Minimum man hour losses, reduction in capital equipment and material losses incorporate improved working conditions. Increased employee moral tends to reduce production costs and helps develop a stable operating force.



## Advantages of a good plant layout

1. A good layout reduces
  - a. the effort in normal material handling of a worker
  - b. cost of handling by direct labor and hence increased productivity per man hour and
  - c. indirect manufacturing cost by decreasing spoilage under difficult handling situation
2. It uses only essential space required and eliminate congestion and accident, permits flexibility for methods improvement and future expansion besides making supervision easier.
3. It also facilitates scheduling and despatching operation.





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Thank you