



Dairy product processing

Level-III

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Module Title: - Monitoring Storage Facilities

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LG #49	LO #1- Determine site functions and operations
Instruction sheet	
<p>This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:</p> <ul style="list-style-type: none"> • identifying Layout of storage facilities and work flow • Identifying types of storage facilities, purpose and risk. • Accessing Inventory lists. • Identifying Storage separations and co-storage applications. <p>This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:</p> <ul style="list-style-type: none"> • identify Layout of storage facilities and work flow • Identify types of storage facilities, purpose and risk. • Access Inventory lists. • Identify Storage separations and co-storage applications. 	
Learning Instructions:	
<ol style="list-style-type: none"> 1. Read the specific objectives of this Learning Guide. 2. Follow the instructions described below. 3. Read the information written in the “Information Sheets”. Try to understand what are being discussed. 4. Accomplish the “Self-checks” which are placed following all information sheets. 5. Ask from your trainer the key to correct your work. 6. If you earned a satisfactory evaluation proceed to “Operation sheets 7. Perform “the LAP test” which is placed following “Operation sheets” , 8. If your performance is satisfactory proceed to the next learning guide, 9. If your performance is unsatisfactory, go back to “Operation sheets”. 	

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Information Sheet 1- identifying Layout of storage facilities and work flow

1.1. Introduction

Storage involves making of proper arrangement for retaining goods in perfect state without losing properties and qualities till these are needed by the ultimate consumer and taken to the market. It creates both time and place utilities. “If transportation and communication define the length and breadth of the market area, then storage and its accompanying function of finance give depth to the market.” In simple words, storage is the process of preserving goods from the time they are produced till they are needed for consumption.

1.2 Stores Facilities

Stores will vary from small stock rooms within larger buildings to warehouses and other purpose-built storage facilities. In all cases, they must be designed, constructed or adapted so that they are fit for the purpose intended.

Whatever their size, any professionally managed stores facility must have sufficient space to receive incoming materials, to keep them safely and securely for as long as they are not required for use, and then to move them out of stores for use.

1.3 Layout

The layout of a storage facility depends on the type of operation conducted, the amount of goods handled, and the need to keep an efficient flow of goods in and out.

Stores should be laid out in order to provide the maximum efficiency and convenience and to allow a smooth flow of work.

For example, shelving, racking and bins should be positioned in order to utilise the maximum available amount of space in the most effective layout, avoiding wasted space, effort, duplication or unnecessary movement.

The four factors which most influence design can be summarized by the following.

- Flow.

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- Accessibility.
- Space.
- Throughput.

storage Facility layout and design is an important component of a business's overall operations, both in terms of maximizing the effectiveness of the production process and meeting the needs of employees.

The basic objective of layout is to ensure a smooth flow of work, material, and information through a system.

The basic meaning of facility is the space in which a business's activities take place.

The layout and design of that space impact greatly how the work is done—the flow of work, materials, and information through the system. The key to good facility layout and design is the integration of the needs of people (personnel and customers), materials (raw, finishes, and in process), and machinery in such a way that they create a single, well-functioning system.

In order to make product items safe for consumption, product processing plants take measures to eliminate the possibility of microbial, chemical, and physical contamination. Hence, the layouts of the dairy processing factories have to be designed to meet product safety requirements on top of production efficiency.

With these factors in mind, the following are common store layouts for your consideration.

- Forced-Path Store Layout.
- Grid Store Layout.
- Loop Store Layout.
- Straight Store Layout.
- Diagonal Store Layout.
- Angular Store Layout.
- Geometric Store Layout.
- Mixed Store Layout.

May affect the safety of dairy products.

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Factors to Consider Before Choosing a Store Layout

- Customer Desires.
- Store Density Levels.
- Stock and Presentation Space.
- Appropriate Transition Spaces.
- Accessible to All Customers.
- Decompression Zones.
- Room for Growth.
- Emphasis on the Checkout.

Material storage management focuses on starting material into the built-up site to be recorded, the material layout and stored over a certain period until it is taken out of the storage area to the work site and the process is repeated. The emergences of new technologies that are not integrated and have no efficient management methods as well as inexperienced management negatively affect the storage management of overcrowded site sites. This study aims to devise an efficient set of materials storage management on a congested site. Critical studies have been referred on more than 50 previous research journals covering by the elements. The framework of this study comprises four elements that are defined as workflow of storage management, storage management systems, material storage methods and roles of responsible parties. The combination of the elements can contribute to the strengthening or discovery of the theory or concept that can be used by the developmental growth and future of the industry.

Factor to be consider for a storage layout

- **effective use of space:-** to break up store in to logical and fictional areas such as POS, back office ,changing rooms , pantry and toilet etc
- **inviting customer's ;-** guide customer's to all the areas of merchandise
- **interior:-** appearance ,wall , section an areas should be planned and positioned well

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- **lighting and music arrangement ;**- it should be placed to suit the kind of shopper these arrangement can be changed during different hours in store

Factors affecting storage layout

- total space available
- Types of product /merchandise offered by the store .
- number of department in store
- Volume and variety ratio in the product line carried.
- Mode of operation.
- Movement required in the store locating, picking and storing the product.
- Target customer's and average number of customer's visiting store.
- degree of changes in operation
- stock/inventory level

1.4 Workflow in stores

Flow of work at Storage Facility

The basic aim of a product store is to maintain an adequate supply of foods for the immediate needs of the business with the very minimum loss through spoilage and pilferage.

The standard established for storing product should address the following principal concerns:-

1. Location of storage facilities
2. Layout of storage facilities
3. Condition of facilities and equipment
4. Arrangement of foods

In larger stores the work will be more complex and will typically involve:

- receiving items and materials

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- returning defective or damaged stock
- keeping records of incoming and outgoing items, and maintaining accurate stock levels
- storing the various stock items in the most appropriate fashion, ie binning and/or racking them by the best methods and placing them in such a way that any item or material in the store can be located quickly and easily when it is required
- ensuring the safety of all items and materials while in the stores area, ie protecting them from pilfering, theft, damage and deterioration
- ensuring, when necessary, that items issued from the stores are packed or packaged appropriately so that they will not be damaged or caused to deteriorate while in transit to their destinations
- Ensuring the health and safety of stores or warehouse staff.

The purposes and need for storage is highlighted by the following reasons:

- In the present competitive world, production is carried on in anticipation of demand and not necessarily for immediate sale. Thus, the producer has to make sufficient arrangements for the storage of goods.
- Many commodities are consumed regularly throughout the year while their production has seasonal character. Such commodities have to be kept in storage in the season when they are available in plenty to be used or sold on demand.
- Some commodities have regular production but seasonal consumption. Such commodities also need storage for the period when there is no demand.
- Certain commodities have to be stored to improve their quality such as curing of tobacco, liquor etc.
- Raw materials have to be stored to enable continuous production without stoppage
- Storage of goods is a necessity during depression when there is little demand and prices are going down.

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- Middlemen have to keep stock of goods to enable them earn profits by storage of goods and making the goods available on demand.
- Storage is needed to adjust demand and supply of goods in the market.
Here are some of the widely used storage methods in warehouses today:

Floor/Block Stacking. This storage method is the most common method of storage because it's suitable for warehouses that are reasonably low in height.

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Self-check 1	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I Short Answer Questions

Which one of the f/f is a point Consideration before Choosing a Store Layout (5pts)

- a) Customer Desires. b) Store Density Levels. c) Stock and Presentation Space.
d) Appropriate Transition Spaces. e) All of the above

Test II say 'TRUE' if the statement is correct and 'FALSE' if the statement is in correct.

1. Storage involves making of proper arrangement for retaining goods in perfect state without losing properties and qualities till these are needed by the ultimate consumer and taken to the market ?(3 pts)
2. The layout of a storage facility depends on the type of operation conducted, the amount of goods handled, and the need to keep an efficient flow of goods in and out? (3 pts)
3. The basic meaning of facility is the space in which a business's activities take place.
(3 pts)
- 4, the basic objective of layout is to ensure a smooth flow of work, material, and information through a system. (4 pts)

Note: Satisfactory rating - 15 points

Unsatisfactory - below 15 points

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

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Information Sheet 2- identifying types of storage facilities, purpose and risk.

2.1 Introduction

Storage is defined as ‘the marketing function that involves holding goods between the time of their production and their final sale.’ It bridges the gap between the time when goods are produced and the time when these are ultimately consumed as there is always a time gap between production and consumption.

2.2 Types of storage

A) Dry Storage Practices

- Store dry foods in a well-ventilated room, at least six inches off the floor and away from the walls.
- The temperature of the dry storage area should be maintained between 50 °F and 70 °F.
- Use FIFO (First In, First Out).
- Store chemicals, cleaners, and pesticides away from food products.
- Keep the shelving and floor clean.

B) Frozen Storage Practices

- Store foods between 0 °F and -10 °F.
- Use FIFO (First In, First Out).
- Properly wrap food to prevent freezer burn.
- Defrost the freezer as needed.
- Keep the shelving and floor clean..

C). Refrigerated Storage Practices

- Store foods at 41 °F or below.
- Mostly used to store raw meat and dairy products away from strong odor foods, if possible.
- Use FIFO (First In, First Out).

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- Store foods to allow cool air circulation on all surfaces.
- Prevent condensation from dripping on food.
- Check and record temperatures frequently.
- Keep the shelving and floor clean.

2.3 There are four types of storage facility

a). Container storage

The units are metal shipping containers, the largest ones offering up to about 160 square feet of storage space, or they can be subdivided into smaller units. These are then parked behind a secure perimeter, and often arranged so that customers can park beside them while unloading.



Fig a). Container storage

Some companies can also deliver storage containers (or “mobile storage units”) to the clients’ home or business. These can be left on site, or picked up by the company and transported back to their secure compound.

- **Advantages**

Container storage is usually considerably cheaper than warehouse storage.

- **Disadvantages**

Exposed containers can suffer from the effects of the weather: hot in summer, cold in winter, with the risk of damp in all seasons. Items to be stored need to be suitable for such conditions.

B). Warehouse storage

This is the kind of facility offered by the main self storage companies, such as Big Yellow, Access, and Lok’nStore: a large building divided into dozens — and

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sometimes hundreds, even thousands — of individual rooms (called ‘units’) of varying sizes.

Warehouse self storage facilities are divided into two categories:

New-build: modern, purpose-built facilities

Conversions: large, older buildings, converted into storage units



Fig 2.warehouse storage

- **Advantages**

Such storage facilities are usually well managed, conveniently located, and secure. They may offer a more comprehensive range of services, such as 24-hour access and temperature-controlled units.

- **Disadvantages**

They are usually the most expensive type of self storage facility.

C). Lock-up garages

Sets of purpose-built garages may be offered as storage units. Their dimensions are not very generous when compared to other types of storage unit, normally having a one-size-fits-all floor area of 124 sq ft.

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fig 3. Lock up garage storage

- **Advantages**

Easy access, often found in residential areas. Usually much cheaper than the ‘warehouse’ style storage centres.

- **Disadvantages**

Security may be limited to the quality of the garage door.

D). Removals depositories (non self storage)

Many removal companies have their own storage facilities, often called “furniture depositories”, where they can store their clients’ belongings between moves. These are often large warehouses in suburban or out-of-town locations, with high standards of security and controlled conditions.



fig 4.non self storage



- **Advantages**

The removal companies will take charge of transport. They should also be able to offer competitive storage prices as part of their overall removal package.

- **Disadvantages**

Access to your belongings while they're stored may not be allowed. Even if this isn't the case some firms will charge you a fee for each visit, and they are likely to be based in very hard-to-reach locations where public access may be restricted..

Safe use of shelves, racks and pallets

- Most businesses use shelves to store goods and materials, and racking units are often used for storage in warehouses and factories, typically in conjunction with pallets. Shelving and racking must be suitable for its purpose and installed and maintained properly. Ensure that:
- floors are sound and level
- manufacturer's installation instructions are adhered to
- where shelving or racking needs to be fixed to a wall, the wall can support the load
- where appropriate, special safety ladders are provided to avoid people climbing on shelving
- units are spaced correctly to allow easy access for staff and, if necessary, mechanical-handling equipment such as forklift trucks
- shelves and racks are properly aligned and goods do not overhang shelves
- correct maximum loads for racking are displayed
- personal protective equipment is used where necessary
- items are stacked correctly, put the heaviest items at the bottom where possible
- Materials that employees frequently need are readily accessible, eg not above head height.

E) Marked Flooring space

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Designed to provide a large amount of storage space can be a great solution for both small and bigger warehouses. It's constructed to serve as an additional floor that is installed above the existing aisles to maximise storage.



fig 4 marked Flooring space

Cellar: - It is a dark and silent room in the purchasing department, hidden from public view. It is run jointly by the purchase and F&B department. It is an ideal place to store alcoholic beverages as it is dark, airy and quiet, with a constant temperature and protected from unpleasant smells. If a true cellar is not available in a catering organization, a dark quiet place where the temperature remains constant can be fitted with wine bins and if necessary, with a humidifier.

Types of storage

No matter the storage type you choose, it's important to have proper boxes and moving supplies to suit your storage unit. the different types of storage facilities.

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A) Outside Storage

One of the more common and affordable storage types is outdoor storage. People generally use outside storage plots to store cars, , dirt bikes, tractors, boats and the like. In an outdoor storage facility, you are likely to find covered units partitioned by wire mesh. If your items need protection from rain and other elements, you'll want to look for different types of storage units than outside storage.

B) Drive-up Storage

These units come in varying sizes. Some popular options include 10-foot wide by 10-foot deep or 10-foot wide by 15-foot deep. The height of drive-up storage varies between different types of storage facilities. The doors on these rooms often roll up like a garage door. But though they may look like garages, check with management to see if the company actually allows vehicles to be parked in the larger units.

Some types of storage facilities may have several rows of buildings divided into many storage units. Customers can usually pull their car or truck right up to the door of the unit to drop off or pick up items.

C) Indoor Storage

To reach these storage types, you'll need to enter a building and pass through some type of security. Inside storage is available in sizes ranging from narrow closets to large rooms. Dollies or other equipment may be at your disposal to help you move items from car to the storage unit. During business hours staff may even be on hand for some of the heavy lifting. (If this factor is important to you, be sure to ask before renting.)

You may need the climate controlled rooms some indoor facilities offer if you are storing items that could warp, melt or otherwise deteriorate in extreme temperatures. If this is the case, you may want to talk to management about how the room's location in the building could affect the temperature of the unit. Will a unit on an outside northern wall

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have a lower temperature due to winter winds than an interior room? Will the hall window opposite the unit's door let in too much heat?

D) Mobile Storage

When renovating your home, you may want a storage unit on your property for a short time to hold furniture and other items while you paint walls or redo floors. Mobile storage companies will deliver individual storage units, sometimes called pods, to your house and leave them for an agreed upon time. These storage types, which may look like small train cars, come in different sizes, and you can rent more than one.

If you prefer, you can fill these units over the course of a few days or weeks and have the company move the storage containers to their facility where they will store them for you. If you need to move, the storage company can take the unit where you want it to go. It's a good alternative to renting a bulky truck and trying to move yourself, or to entrusting your personal belongings to a moving company that packs and ships.

When the storage unit is being stored at the mobile storage company, management restricts access to the unit to the person renting it and may require that person to provide a day or two's notice before visiting. Companies often stack storage pods on top of each other and may have to move yours to the ground with heavy equipment before your arrival.

Storage of hazardous materials

Under the Control of Substances Hazardous to chemicals and dangerous substances must be stored and handled in a way that minimises the risks posed by those substances and which limits people's exposure to them.

The risks of storing and handling potentially hazardous substances need to be assessed including the possibility of environmental damage caused by leaks and spills.

Precautions to control risks could include:

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- storing chemicals according to the manufacturer's instructions on the safety data sheet
- keeping the minimum quantity of hazardous substances necessary
- storing incompatible substances separately
- taking steps to prevent release or leakage of dangerous substances
- keeping a spill kit near to storage areas and ensuring staff are trained in what to do in the event of a spill
- cleaning up any leaks or spills that occur
- using appropriate precautions when handling substances, eg wearing protective clothing or ensuring adequate ventilation
- ensuring employees who store and handle dangerous substances are properly trained
- checking containers used for
- Short-term storage are properly labelled.

Workplace regulations

The Workplace (Health, Safety and Welfare) Regulations 1992 apply to storage facilities. The regulations require workplaces to be kept clean, to have sufficient heating, lighting and ventilation, and to have sufficient toilets and rest facilities. In addition, the regulations and their associated Code of Practice, L24 (Second edition) Workplace Health, Safety and Welfare, states that employers must protect their staff from the dangers of falls or falling objects and to ensure that traffic routes are safe to use.

The Approved Code of Practice (ACOP) states that there must be sufficient traffic routes, of adequate width and head room, to allow people and vehicles to circulate safely with ease. This is particularly important in warehouses where supplies or goods are delivered on pallets and moved by forklift trucks. To allow people and vehicles to move safely, the approach advocated by the Health and Safety Executive

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(HSE) is to keep vehicles and pedestrians apart by ensuring that they use entirely separate routes.

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Self-check 2	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Short Answer Questions

1. Define storage.(5pts)
- 2 write down Types of storage practice? (5pts)
3. List down types of storage? (5pts)
4. Write down Types of storage facility? (5pts)

Note: Satisfactory rating - 20 points

Unsatisfactory - below 20 points

You can ask you teacher for the copy of the correct answers

Score = _____

Rating: _____

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Information Sheet 3:- accessing inventory lists.

3.1 INTRODUCTOIN

Inventory List is a way to gain more control over the business inventory so that the utilization of the inventory can be done in an efficient manner, where the list contains the details regarding opening stock, purchases, closing stock of all the types of inventory used by the company.

Inventories list is a mechanism to exercise more control over the inventory of a business entity so that the inventories can be utilized efficiently. It is usually made in an orderly fashion where it is simply represented as a list of stock items with details about each line item. Nowadays, most of the inventory management is done through computer software which makes such data-intensive tasks bearable.

The inventories list is updated at variable frequencies depending upon the flow of inventory or turnaround time of the inventory, depending upon the type of business. So if the business entity deals with fast moving items, then the inventories list needs to be updated daily, or if the inventory pushes out is sluggish, then it may be updated on a weekly or monthly basis as well.

There are the steps to create a basic inventory report that requires manual updating.

- Create a column for inventory items.
- Create a column for descriptions.
- Assign a price to each item.
- Create a column for remaining stock.
- Select a time frame.
-

3.2 Components of Inventory List

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Usually, this serves as an inventory identifier in the inventory control to track the status of a particular item in the list.

- Inventory ID
- Name.
- Description.
- Unit Price.
- Quantity.
- Value.
- Reorder Level
- Reorder Time (in days)

Inventories List									
Components									
ID	Name	Description	Unit Price	Quantity	Value	Reorder Level	Reorder Time	Quantity in Reorder	Discontinued



- a) .Inventory ID:**--Usually, this serves as an inventory identifier in the inventory control to track the status of a particular item in the list.
- b) . Name:** - It represents the name of the item on the list to represent the item.
- c) - Description:** - It represents the detail of the description of the item. It may tell about some specifications of the item that may help in identifying a particular



inventory item amongst so many of them, or it may be some type of general description.

d) - Unit Price: - It is the purchase price of the item on per unit basis. Sometimes if the item is purchased in different slots at different prices, then it may represent:-the average unit price of the item as well.

e) - Quantity:--Here goes the total number of units of the particular item on the list. It gives an idea of whether an order to replenish the inventory must be placed with the vendor or not. Every business entity has some type of threshold to

f) - Value:--This column is of high importance as it represents the value of the inventory item for all the units present in the warehouse. It also represents a type of budgeting to give a glimpse of how much money is tied up in inventories.

g) - Reorder Level:--It depicts the threshold level for each line item on the list. When the inventory quantity goes below the reorder level, then the order is automatically placed with the vendor if the inventory management system is in place in the business entity.

h) - Reorder Time (in days) :- It is the expected time between placing the order of a particular inventory item with the vendor and receiving the ordered item.

i) - Quantity in Re-order:-- It refers to the quantity for which the replenishment order needs to be placed with the vendor. This amount puts back the total quantity to the fulfilment level, which is way above the reorder point.

j) - Discontinued:--This column mentions whether the particular item is no longer maintained as an inventory.

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Inventory List Example #1

Inventory ID	Name	Description	Unit Price	Quantity in Stock	Inventory Value	Reorder Level	Reorder Time in Days	Quantity in Reorder	Discontinued?
IN0001	Item 1	Desc 1	\$51.00	25	\$1,275.00	29	13	50	
IN0002	Item 2	Desc 2	\$93.00	132	\$12,276.00	231	4	50	
IN0003	Item 3	Desc 3	\$57.00	151	\$8,607.00	114	11	150	
IN0004	Item 4	Desc 4	\$19.00	186	\$3,534.00	158	6	50	
IN0005	Item 5	Desc 5	\$75.00	62	\$4,650.00	39	12	50	
IN0006	Item 6	Desc 6	\$11.00	5	\$55.00	9	13	150	
IN0007	Item 7	Desc 7	\$56.00	58	\$3,248.00	109	7	100	yes
IN0008	Item 8	Desc 8	\$38.00	101	\$3,838.00	162	3	100	
IN0009	Item 9	Desc 9	\$59.00	122	\$7,198.00	82	3	150	
IN0010	Item 10	Desc 10	\$50.00	175	\$8,750.00	283	8	150	
IN0011	Item 11	Desc 11	\$59.00	176	\$10,384.00	229	1	100	
IN0012	Item 12	Desc 12	\$18.00	22	\$396.00	36	12	50	
IN0013	Item 13	Desc 13	\$26.00	72	\$1,872.00	102	9	100	
IN0014	Item 14	Desc 14	\$42.00	62	\$2,604.00	83	2	100	
IN0015	Item 15	Desc 15	\$32.00	46	\$1,472.00	23	15	50	
IN0016	Item 16	Desc 16	\$90.00	96	\$8,640.00	180	3	50	
IN0017	Item 17	Desc 17	\$97.00	57	\$5,529.00	98	12	50	Yes

3.3 Types of inventory system

- **An automated inventory** management system is a software application that allows wholesalers and distributors to add, edit, delete and transfer inventory in real time. Also, an automated inventory system allows you to pull inventory counts from your suppliers using a data feed that feeds into your own website.



Fig 3.3 automated inventory system



- **Manual handling inventory system**

Under the Manual Handling Operations, an employer must avoid the need for hazardous manual handling operations, so far as is reasonably practicable.

Where a hazardous manual handling operation cannot be avoided, the employer must carry out a thorough assessment and use it as the basis of action to minimise the risk. Suitable training and information should be provided to employees, as well as any machines, tools or aids designed to make manual handling easier or to eliminate the need for it altogether.

The need for manual handling can be reduced by redesigning tasks and processes. For instance, suppliers can be encouraged to deliver goods as close as possible to the point of storage. Goods should be packaged suitably, for example, not in boxes or packages that are too large or awkward for staff to move easily. Those responsible for stores should avoid storing heavy or bulky loads high up in store cupboards or on high shelves. They should also be careful to organise storage to reduce clutter and the dangers of objects falling.

- **Electronic(computerised) inventory systems**

A computerised system is a good option for businesses dealing with many different types of stock. Other useful features include:

- stock and pricing data integrating with accounting and invoicing systems
- automatic stock monitoring, triggering orders when the reorder level is reached
- automatic batch control if goods are produced in batches
- the cheapest and fastest suppliers can be readily identified
- barcodes can be printed out and read directly.

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Self-check 3	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I Short Answer Questions

1. define Inventories ?(5pts)
2. Write down Components of Inventory List? (5pts)
3. Write down types Inventory system? (5pts)

Note: Satisfactory rating - 15 points

Unsatisfactory - below 15 points

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

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Information Sheet 4:- identifying Storage separations and co-storage applications.

4.1 introductions

Storage means placing the products in the proper storage area. The purpose of proper storage is to ensure the security and quality of products stored until they are needed. Storage areas should always must be maintained at the proper temperature to ensure product quality, and locked to ensure product security. As a result the products in storage areas have been stored according to store policies such as,

Types of storages: - According to nature of product and commodities, stores can be separated as:-

- I. **Perishable product store:-** Used to store perishable product items such as fish, meat, poultry, dairy products, game, fats, vegetables and fruits.
- II. **Frozen store:-** Used for storing frozen foods, which must be placed immediately in a deep freeze.
- III. **Non-perishable items or dry store (groceries store):-** Used for storing pulses, cereals, sugar, flour, jams, pickles, bottled foods, canned foods, breads, cakes

4.2 Storage Inspections and separation

All materials held in storage should be inspected to determine whether they are susceptible to damage, heating, deterioration, swelling, shrinking, corrosion or attack by insects or rodents.

The frequency of inspection will depend on the type and method of storage. Where these conditions are evident and could cause loss of stability, collapse, fire or any other harmful effect, action should be taken to eliminate the hazard. Incoming goods should be carefully inspected for damage of any kind before being placed in store. Racks, shelving, fixtures and other equipment used for storing, loading and unloading materials should be regularly inspected for damage and other defects which might cause loss of strength or result in damage or injury.

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As a result the products in storage areas have been stored according to store policies such as,

- Store items using FIFO (First In, First Out).
- To do this, store new supplies behind old supplies so that the old supplies are used first.
- Store food and chemicals in separate areas.
- Date product and place new foods behind current stock.
- Keep food in clean, sturdy containers to prevent pest and rodent infestation.
- Keep food off the floor and away from the walls.
- Keep the shelving and floor clean.

The cold storage of products for the dairy industry are divided into two sections:

- milk, butter, cheese, etc, stored at 273 to 278 k (0 to 5 deg c) and
- Ice cream which is held at 243 to 248 k (-30 to -25 deg c).

In the construction of modern cold stores, great importance is paid to labour and energy saving facilities. The paper describes a present-day modern dairy cold store with details of plant layout, equipment and refrigerating and storage capacities.



Fig 4.2.1 cold storage room.

Source Holland dairy industry (bishoftu)

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Self-check 4	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I say TRUE if the statement is correct and FALSE if the statement is false

1. The frequency of inspection will depend on the type and method of storage.(5pts)
2. Incoming goods should be carefully inspected for damage of any kind before being placed in store? (5pts)
3. In the construction of modern cold stores, great importance is paid to labour and energy saving facilities. (5pts)

Note: Satisfactory rating - 15 points

Unsatisfactory - below 15 points

You can ask you teacher for the copy of the correct answers.

Score = _____
Rating: _____

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LG #50	LO #2- Monitor storage operations
Instruction sheet	
<p>This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:</p> <ul style="list-style-type: none"> • Confirming inventory data • Supervising storage areas • Checking storage facilities • Monitoring Integrity of goods/materials • Noting and undertaking action changes to storage requirements • Initiating in response of appropriate action • Documenting operational actions and investigative outcomes <p>This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:</p> <ul style="list-style-type: none"> • Confirm inventory data • Supervise storage areas • Check storage facilities • Monitor Integrity of goods/materials • Notice and undertake action changes to storage requirements • Initiate response of appropriate action • Document operational actions and investigative outcomes 	

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Learning Instructions:

- 1) Read the specific objectives of this Learning Guide.
- 2) Follow the instructions described below.
- 3) Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
- 4) Accomplish the “Self-checks” which are placed following all information sheets.
- 5) Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
- 6) If you earned a satisfactory evaluation proceed to “Operation sheets
- 7) Perform “the Learning activity performance test” which is placed following “Operation sheets” ,
- 8) If your performance is satisfactory proceed to the next learning guide,
- 9) If your performance is unsatisfactory, ask your trainer for further instructions or go back to “Operation sheets”.



Information Sheet 1 :- Confirming inventory data

1.1 Introduction

A inventory data is a list of datasets with meta data that describes their contents,source, licensing and other useful information.

An inventory data can be a useful tool for any organisation or project dealing with multiple types and sources of data.

Creating a inventory data is also an important part of creating a data management plan or a research project.

An annotated list of datasets can help you to effectively locate, manage, use and share data.

The context it provides can help users understand why data has been collected, what it contains, how it is managed and the ways it will be made available for others to use. When published under an open licence, a data inventory can help people find and use the data they need.

1.2 How to create and maintain a inventory data processing

Your data processing inventory has to be up-to-date with your Organizations data processing.

It should not just be a list of records containing information mandated by the regulation, as it can be out of sync with the real processing.

This is most easily done by using a specialized Data Privacy software that provides functionalities for effective collaboration and built-in intelligence to record privacy-related information and integrate them with other systems and data.

The most common method of creating a data processing inventory is to Create records of processing activities in an Excel spreadsheet, a

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1.3 Inventory count procedure

Order count tags. Order a sufficient number of two-part count tags for the amount of inventory expected to be counted.

- Preview inventory.
- Pre-count inventory.
- Complete data entry.
- Notify outside storage locations.
- Freezer warehouse activities.
- Instruct count teams.
- Issue tags.

1.4 importances of inventory data?

An inventory data can be useful whenever it is helpful to be able to browse and compare a list of datasets. For example, a data inventory can help to:

●**Improve data discovery:** - to understand the extent of the data that you organisation manages, uses or publishes. Publishing an inventory data under an open licence can help others to find access and use the datasets that your organisation may be able to share or publish under an open licence.

A data portal is an example of a public data inventory.

An inventory might also be compiled to provide a list of datasets that are usefull to tackle a particular problem or challenge

●**Improve data governance:** - the process of compiling and managing a data inventory can help you to take stock of the data that your organisation is managing. Creating an inventory is often the first step in improving your data governance.

The inventory can help to identify duplicates, be used to improve best practices, and ensure that there are clear roles and responsibilities associated with managing data as an asset.

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- **Inform decision making around data management**

To understand the status of your data. A inventory data can help to prioritise resources, e.g. to improve data quality, rationalise technical platforms used to manage and publish data, or avoid duplication in collecting or purchasing data that is already available

- **Inform product development** – an inventory can help to understand which data sources are already available within an organisation. An inventory could help to identify which datasets could be published for others to reuse, or which could be used to develop new products or services

- **Create a legal record:** - an inventory can provide a legal record of the data that an organisation manages. You may have to do this for compliance reasons, such as maintaining a data asset register for the recently introduced General Data Protection Regulation (GDPR), or to maintain a list of third-party datasets your organisation accesses and the licensing and data sharing agreements which govern their use.

In short, a data inventory can help to provide useful information on the location, quality, technical and legal frameworks that will inform how data is managed, use and shared.

table

Monthly Production Report Manufacturing									
Line NO				Month	Aug	2020			
Date	Style	Manpower	Working Hours	Line Out put Production	Gammnets sam	Total Minute Attendend	Total Minute Produced	Line efficiency %	
1-Mar-20	Pants	35	8	400	25	16800	10000	60%	
2-Mar-20	Shirt	40	8	500	20	19200	10000	52%	
3-Mar-20	Skirts	30	8	650	15	14400	9750	68%	
4-Mar-20	Jackets	45	8	600	30	21600	18000	83%	
5-Mar-20	Trouser	50	8	450	24	24000	10800	45%	
6-Mar-20	Shorts	20	8	300	15	9600	4500	47%	



Food Inventory Template

[Use Template](#)

Meat

PDF PREVIEW

FORM PREVIEW ●

Quantity		Quantity	
Beef Brisket	4	Apple	44
Beef Shank	33	Banana	33
Sirloin	4	Guava	34
Pork belly	33	Grapes	34
Ham	24	Orange	13
Bacon	100	Kiwi	11
Chicken	33	Cherry	13
Tuna	100	Peach	43
Salmon	100	Pear	11



Self-check 1	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I Short Answer Questions

1. write down Inventory count procedure?(5pts)
2. Write down importance of inventory data? (5pts)

Note: Satisfactory rating - 10 points

Unsatisfactory - below 10 points

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

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Information Sheet 2 :- Supervising storage areas

2.1 Introduction.

Supervisors are responsible for taking action to prevent incident, illness and injury.

Supervisors have an advantage in safety inspections because of familiarity with workers, equipment and environment.

This familiarity is also a disadvantage because it can interfere with a supervisor's objectivity. If the supervisor is not on the inspection team, before inspecting a department or area, the team should contact the supervisor in charge but the supervisor should not act as a tour guide.

If the supervisor of the area does not accompany the inspection team, consult the supervisor before leaving the area. Discuss each recommendation with the supervisor. Report items that the supervisor can immediately correct. Note these on the report as corrected. This documentation keeps the records clear and serves as a reminder to check the condition during the next inspection.

Although a supervisor may interpret reporting as a criticism, inspection team cannot fail to report hazards. Aim to be objective and maintain an attitude that is firm, friendly, and fair.

2.2 during supervising storage areas points' consideration are

- Decide on the level of stock required and ensure good stock management.
- Determine storage space requirements based on the level of stock required.
- Select a warehouse that meets adequate design requirements including security, access, size, ventilation, location and utilities.
- Ensure all goods are received by the storekeeper and inspected on delivery.
- Ensure the warehouse space is organised to facilitate effective storekeeping and comply with safety standards, and allow sufficient space for delivery and packing.
- Implement good piling/stacking practices.

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- Implement an appropriate rotary system for the order of stock coming in and out, considering expiry dates.
- Ensure food storage complies with a food safety checklist.
- If good quality warehouse options are not available, consider emergency storage solutions such as containers and Rubb halls.
- Implement minimum standards for warehouse management tools, including the use of waybills, and other standard warehouse and inventory management documentation.
- Put in place adequate warehouse staffing including storekeeper and loaders.
- Consider sharing warehouse space with other NGOs as a cost-saving measure but ensure very clear delineation of space, controls and liabilities.
- Supply the warehouse with adequate levels of materials and equipment.
- Ensure safety measures are in place including safety equipment and practices.
- Put controls in place to minimise security risks to warehouse and stock.

2.3 safety standard requirement around storage areas

- Make sure that mechanical equipment is maintained, and used only by authorized personnel.
- Make sure that safety instructions are strictly followed (tools, handling, lifting).
- Make sure that there are first aid kits, that they are maintained, and that someone knows how to use them.
- Keep an accident log together with the Safety and Security Officer.
- Check periodically that all openings (doors, windows, etc.) are working properly.
- Assign responsibilities and set out the steps that each staff member should take in case of fire.

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- Make sure that fire-fighting equipment is immediately accessible inside and outside buildings.
- Prohibit smoking by anyone (including visitors and drivers).
- Never store, even temporarily, flammable materials in the main storage area

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Self-check 2	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: - Test I say TRUE if the statement is correct and FALSE if the statement is false

Supervisors are responsible for taking action to prevent incident, illness and injury.(5pts)

Note: Satisfactory rating - 5 points

Unsatisfactory - below 5 points

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

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Information Sheet 3 :- Checking storage facilities

There are multiple factors to consider in the site selection of storage facilities:

Location: the location chosen should be easily accessible and close to market hubs and/or produce collection points

Electricity: the access to and the supply of electricity to the storage facility should be given. Electricity supply has an impact on the size and equipment feasible of the storage

Drainage and waste disposal: good drainage options and waste management equipment needs to be readily available

Water: supply of water is important for matter of sanitation. Also the removal of wastewater generated has to be given

Utilities: There should be office space for the storekeeper, preferably with toilet and wash-up facilities, and regular garbage disposal. Lighting in the warehouse and surrounding area. The warehouse should be fenced and facilities should be present for watchmen.

Ventilation: The construction should be dry and well ventilated. The roof should be leak-proof. There should be no broken windows. Doors should close securely with no gaps. To reduce temperature inside the warehouse, you should paint the roof and walls outside, in white.

Economic viability: the value generated though storage needs to justify investment and running costs

In general, choosing an appropriate storage facility depends on the temperatures and level of reliability required, resources available – including skilled labour, capital, electricity and water supply

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Self-check 3	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I multiple choice

1. Choosing an appropriate storage facility depends (5pts)
 - a) Temperatures
 - b) Level of reliability required,
 - c) Resources available – including skilled labour, capital, electricity
 - d) Water supply.
 - e) all of the above

Test I Short Answer Questions

1. write down factors to consider in the site selection of a storage facilities?(5pts)
2. Define economic viability? (5pts)

Note: Satisfactory rating - 15 points

Unsatisfactory - below 15 points

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

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Information Sheet 4 :- Monitoring Integrity of goods/materials

4.1 Monitoring and Follow-up of goods/materials

Establish procedures to monitor:

- how materials are received
- how materials are stored (including finished product)
- how finished products are shipped
- This includes regularly reviewing reports and following up on requests for corrective actions.

4.2 When storing materials, be sure to

- Identify the hazards associated with storing the materials you receive (such as inadequate temperature control, overhead pipes dripping condensation on your product, etc.)
- establish policies and procedures for eliminating or controlling those hazards
- keep storage areas clean and organized
- regularly monitor all storage areas to make sure requirements are being met
- Analyses the material through a regular monitoring program (for example, grading raw milk and testing it for antibiotics).
- Ask your supplier for a "Certificate of Analysis" prior to or with each shipment and lot. A Certificate of Analysis demonstrates that your ingredients meet the appropriate specifications.
- Periodically sample and test incoming ingredients to verify they are meeting specifications.
- Visually inspect the material.

4.3 Checking stock

The following are some of the most commonly used procedures which can easily be adopted by most stock rooms:

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- Check all purchases/deliveries to confirm that the quality is acceptable and that all products are within the durability date. Foods which arrive in damaged packaging may have been contaminated by foreign bodies, pests or micro-organisms.
- If products are transferred to larger or alternative storage containers, the containers should be labeled to show the contents and the date of arrival or the date by which they should be used. All containers should be closeable to prevent infestation by pests or accidental contamination by foreign bodies or micro-organisms.
- Packaged food products should be kept off the floor and away from walls, with adequate space between stock to enable regular inspection for pests and aid cleaning.
- Raw foods and cooked foods should be kept apart during storage and display. In fridges and freezers, cooked foods should be stored above raw food.
- The **‘first in first out’** principle of stock rotation should always be applied. New stock should be stored behind old stock, or underneath it.
- Always check the durability date before using the selected stock. If out-of-date, report the fact to the supervisor or discard. Check remaining similar stock.
- Carry out a periodic stock check, the frequency of which will depend on the type and normal durability of the stock carried. A few products of a highly perishable nature may need to be checked daily.

4.4 Receiving Raw milk

- All raw milk must be received in dedicated tank-trucks that meet the requirements under the regulations of the Milk Act.
- When raw cow or goat milk arrives at your plant, a certified Plant Milk and Cream Grader (PMCG) must grade it based on the regulatory requirements

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under the Milk Act. PMCGs should reject the milk if it does not meet the requirements.

- If the tank-truck has been sealed, check the records to make sure the sealing program was followed. If any seals are missing and unaccounted for, the load may have been tampered with and should be rejected. If there is a logical explanation for the missing seal, the load may be accepted. In this case, be sure to document the reason why the seal was missing.



fig 4.4.1 a) milk receiving .

source ; - Dairy Holland company (bishoftu)



fig 4.4.1b) milk storage area

source:- Dairy Holland company (bishoftu)



Fig 4.4.1 c) milk storage tanksource tank dairy Holland Company (bishoftu)

4.5 Make a record of each information including information such as:

- volume
- temperature
- date and time of receipt
- person responsible for receiving
- where the product was stored
- any unusual activity you observe

4.6 Rejection of materials & exceptions

Have a documented policy that describes when incoming material should be rejected and how to do it. It should also describe when to make exceptions and how to handle those situations. For example, if the delivery vehicle was dirty but the ingredients or packagings were sufficiently protected and intact, you can still receive the material if you:

- send a report to the supplier and the transporter documenting the conditions under which the materials were received



- document what you had to do to make sure it would not contaminate other materials or your product (for example, cleaning dust and debris off the outer wrap or the containers)

4.7 Bulk liquid pasteurized dairy ingredients

Receiving

- If you receive pasteurized dairy products in bulk tank-trucks, you will have to re-pasteurize them in your plant. This is because the tank-truck and the loading and unloading equipment (pipelines, hoses and pumps) are commonly shared with raw milk and cannot be guaranteed to have been properly cleaned to prevent cross-contamination from raw milk.
- If you receive pasteurized dairy products in bulk tank-trucks and you do not wish to re-pasteurize them, you must have specific vehicles, tanks, product transfer lines and transfer pumps dedicated to pasteurized product only at both the shipping and receiving facilities. These systems must be inspected and approved by your local government inspection agency.
 - ✓ This practice can only be applied to certain products that would be subjected to a "kill step" during further processing such as drying or cooking.
 - ✓ This practice is not acceptable for fluid milk and cream.
- Have written policies and procedures to reduce any identified risks and make sure that pasteurized product does not become contaminated. These include:
 - ✓ where the pasteurized product can be held before it is processed
 - ✓ how long and at what temperature it can be held before it needs to be re-pasteurized
 - ✓ how the product is protected from cross-contamination by raw product in the facility
- how the dedicated tank-truck is cleaned and sanitized

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- If the tank-truck has been sealed, check the records to make sure the sealing program was followed. If any seals are missing and unaccounted for, the load may have been tampered with. Reject the load.
- Do not receive pasteurized dairy products in re-useable plastic totes, since they cannot be effectively cleaned. Collapsible totes with single-use plastic bag liners are acceptable.
- When you receive pasteurized dairy products, document the temperature of the pasteurized dairy products (and the inside of the vehicle, if appropriate).
- If products are delivered in a refrigerated truck, check the vehicle records to confirm the product was kept at between 1°C and 4°C throughout the entire journey.

4.8 Storage

- If the plant cannot immediately process the incoming raw milk, make sure there are enough tanks or silos to store it.
- To minimize the growth of micro-organisms, empty, clean and sanitize the raw milk silos and storage tanks at least once every 48 hours.
- Have a written cleaning program for making sure the cleaning and sanitizing was done properly.
- Use storage tanks or silos that are easy to clean. This means:
 - ✓ they should be made of stainless steel
 - ✓ they should be designed so they can be cleaned either by hand (for smaller tanks) or using a **CIP system** (for larger tanks or silos)
 - ✓ While the milk is in the storage tanks or silos, monitor the temperature and make sure it stays between 1°C and 4°C.

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Self-check 4	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I:- multiple choice

The following are some of the most commonly used procedures which can easily be adopted by most stock rooms: ? (5pts)

- a) Check all purchases/deliveries to confirm that the quality is acceptable and that all products are within the durability date.
- b) If products are transferred to larger or alternative storage containers, the containers should be labeled to show the contents and the date of arrival or the date by which they should be used.
- c) Packaged food products should be kept off the floor and away from walls, with adequate space between stock to enable regular inspection for pests and aid cleaning.
- d) Raw foods and cooked foods should be kept apart during storage and display. In fridges and freezers, cooked foods should be stored above raw food. e) all of the

Test I Short Answer Questions

1. Write down establishing procedures to monitor goods/materials? (5pts)
2. Write are those information and records receiving of shipment? (5pts)

Note: Satisfactory rating - 20 points

Unsatisfactory - below 20 points

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

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Information Sheet 5 :- Noting and undertaking action changes to storage requirements

The general requirements for storage of materials in the workplace

Workplaces can easily become very untidy if housekeeping is not managed. Spoil heaps at excavations, piles of new materials, debris and waste can all accumulate very quickly. This can:

- Hinder or prevent the safe movement of pedestrians and vehicles around the workplace.
- Block light.
- Block access to essential services, such as fire equipment.

In some instances, stacks and piles of materials can present an immediate danger of collapse. Stacked materials, in particular can topple over if they are not stacked correctly

Good housekeeping starts with good design and layout of the workplace; sufficient space must be allocated for the storage of materials at the planning stage. In particular:

- Storage areas should be clearly defined.
- Separate areas should be used for different items (for ease of identification).
- Certain materials and substances should be segregated during storage; alternatively, purpose-built secure storage (e.g. gas-bottle cages) may be required.
- Areas should be kept clean and tidy and should be routinely inspected.
- Appropriate warning signs should be displayed where necessary (e.g. where flammable materials are stored).
- Storage areas should not be used for work activities.

Stacking materials is an efficient way to use space. When stacking:

- Each stack should be for one material only (not mixed).

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- A maximum stack height must be set (depending on the strength and stability of the material being stacked).
- Stacks should be vertical (not leaning).
- Pallets should be used to keep materials off the ground.
- Sufficient space must be allowed between stacks for safe movement.
- Stacks must be protected from being struck by vehicles.

Materials Handling Methods

- Inspect materials for splinters, nails or other protruding objects, jagged or sharp edges, burrs, and rough or slippery surfaces.
- Get a firm grip on the object.
- Keep fingers away from pinch points, especially when setting down materials.
- When handling lumber, pipe, or other long objects, employees should keep hands away from the ends to prevent them from being pinched.
- Wipe off greasy, wet, slippery, or dirty objects before trying to handle or store them.
- Keep hands free of oil and grease.

Personal Protective Equipment

Handles and holders should be attached to loads to reduce the chances of getting fingers pinched or smashed.

When the loads are heavy or bulky, the mover should wear steel-toed safety shoes or boots to prevent foot injuries in the event that the worker slips or accidentally drops a load.

In most cases, gloves or other hand protectors must be worn to prevent hand injuries.

- When opening a wire-bound bale or box, employees must wear eye protection as well as stout gloves and take special care to prevent the ends of the bindings from flying loose and striking their face or body. The same precaution applies to coils of wire, strapping, or cable. Use cutters that clamp ends when cut.

Lifting and Carrying

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- Before employees perform jobs requiring heavy and/or frequent lifting, make sure they are physically suited for the job.
- If a load is thought to be more than one employee can handle, the employee should obtain assistance or use a lifting aid to perform the operation in a safe manner.

Here are six steps to safe lifting:

- Keep feet parted – one alongside and one behind the object
- Keep back straight and nearly vertical. Bend at the knees instead of the waist
- Tuck in your chin
- Grip the object with the whole hand
- Tuck in elbows and arms
- Keep body weight directly over feet

Handling Barrels and Drums

When two employees are to overturn a full drum, they should use the following procedure:

- Make sure they have enough room. Cramped quarters can result in badly injured hands.
- Both stand near each other, facing the drum. They grip the closest point of the top chime with both hands. Resting their palms against the side of the drum, they push until the drum balances on the lower chime.
- They step forward a short distance, and each employee releases one hand from the top chime in order to grip the bottom chime. They ease the drum down to a horizontal position until it rests solidly on its side.

Storage Space Requirements of a Factory

Adequate storage space allocation to different materials and supplies is of great importance because otherwise, a small increase in their quantities may give rise to congestion and the whole storage system maybe out of gear.

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The following items and the amount of stock holding determine the storage space requirements:

- (a) Incoming new materials,
- (b) Checking and sorting the raw material,
- (c) Inspection of raw material,
- (d) Temporarily storing the new material before it is placed at the proper location,
- (e) In-process inventory,
- (f) Tools and other supplies, and
- (g) Finished products.

The space to be provided for above factors depends upon:

- (1) Size and weight of raw material, in-process goods and finished goods,
- (2) Their quantities, and
- (3) Frequency of use.

Liquid materials are stored in drums, cans, barrels and bottles. Gases are kept in cylinders whereas solid materials can be placed in boxes, barrels, bags, pallets, containers, etc. Castings or forgings can be stored in pallets and stocked in rows. Toxic materials are generally stored in well ventilated areas.

The plan view of a store room indicating various spaces required:

- (1) Incoming material receiving gate,
- (2) Place for dumping raw material,
- (3) Place for sorting and checking of raw materials,
- (4) Place for raw material inspection
- (5) Place for temporarily storing the materials before putting them on racks, etc.
- (6) Proper place for storing each type of material,
- (7) Main aisles,
- (8) Side aisles
- (9) Service window,
- (10) Boxes containing materials to be issued, and

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(11) Counters for keeping materials, to be issued, which have been brought from (6) and will be placed in (10).

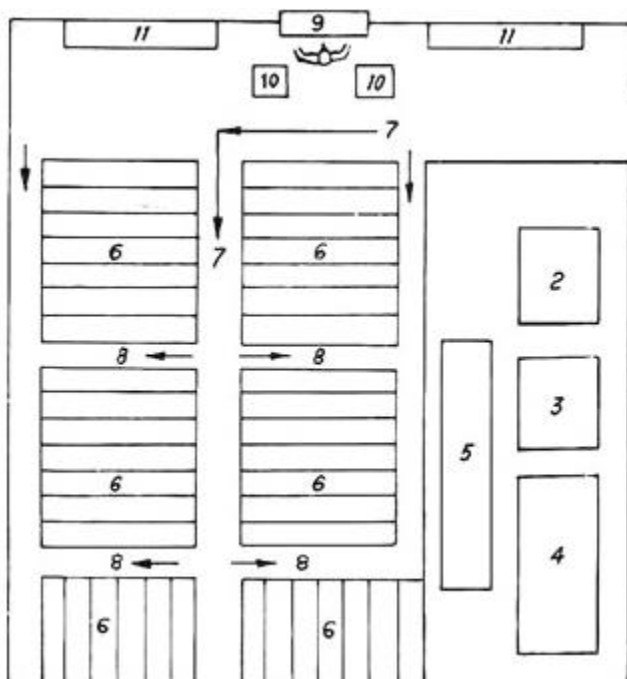


fig plan view (lay out) of storage room



Self-check 5	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I:- say TRUE if the statement is correct and FALSE if the statement is false

1. Workplaces can easily become very untidy if housekeeping is not managed ?(4pts)
2. Stacks and piles of materials can present an immediate danger of collapse. (3pts)
3. Good housekeeping starts with good design and layout of the workplace? (3pts)

Note: Satisfactory rating - 10 points

Unsatisfactory - below 10 points

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

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Information Sheet 6 :- Initiating appropriate action in response to breaches

A proper risk analysis involves a three-step process identifying, evaluating, and eliminating or reducing risk. These steps include:

- Asset inventory and prioritization
- Threat and vulnerability identification
- Examination of existing security controls associated with addressing identified threats and vulnerabilities
- Determining the likelihood of exposure to identified threats and vulnerabilities
- Determining the impact (fiscal, workflow, etc.) associated with the exercise of a threat or vulnerability exploitation
- Determining, prioritizing, and mitigating identified risks

Storage systems are used in one or more areas of a facility to hold and secure materials for future use as needed:

Assembly:- Storing work-in-process for later production steps

Kitting:- Providing an area for items that are commonly used together to be stored together

Production:- Holding reserves of components or tools for delivery to the production line as needed

Staging:- Holding items for further processing, packaging or shipping

Warehousing:- Storing slow-, medium- and fast-moving products or materials for use when needed

Order picking:- Holding active or reserve inventory for selection upon order.

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Self-check 6	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I: - say TRUE if the statement is correct and FALSE if the statement is false

1. Write down three-steps of proper risk analysis? (3 pts)
2. What are Storage systems? (3 pts)
3. Define Staging? (3 pts)
4. Define Warehousing? (3 pts)
5. Define Order picking? (3 pts)

Note: Satisfactory rating - 15 points

Unsatisfactory - below 15 points

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

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Information Sheet 7 :- Documenting operational actions and investigative outcomes

Storage: - a processor must ensure that all dairy products at the dairy plant are stored so that they are protected from being contaminated or rendered unfit for human consumption.

These records must provide sufficient information to show that you are complying with your FSP (food safety program).

Records must be legible and indicate:

- what the record relates to (title)
- Where there is more than one page, number of pages.
- who made the record
- the date and issue status
- the result of what is being recorded
- any action taken as a result of the recording such as a corrective action

Document control is important because obsolete information needs to be distinguishable from current information.

Otherwise it is possible work could be carried out according to superseded specifications, process controls or methods.

Documents must be made available to staff and at locations where operations essential to the effective functioning of the food safety system are performed.

Documentation and recordkeeping

- With respect to food safety, records should be kept where necessary on:
- Identification and movement of product
- Regular control of udder health;
- Use of veterinary drugs and pest control chemicals;
- Nature and source of item ;
- Milk storage temperatures;
- Use of agricultural chemicals;

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- Equipment cleaning.

The cleaning and sanitising programme must be documented and include:

- the cleaning and sanitising procedures for the premises and equipment, be it CIP or manual
- dismantling and reassembly
- frequency of cleaning
- personnel responsible for each task
- cleaning equipment, chemicals (including concentrations, temperature and flow rates) and
- method to be used
- records to indicate that cleaning was carried out (for example daily check list)
- Corrective actions to be taken and records of these actions when they occur.

Premises for storage of, dairy and dairy-related equipment

Premises for the storage of milk should be situated and constructed to avoid risk of contamination of milk or equipment.

Premises for the storage of milk should have:

- suitable milk refrigeration equipment, when appropriate;
- a sufficient supply of water of a suitable quality of for use in milking and in cleaning of equipment and instruments;
- protection against vermin;
- easily cleanable floors, if applicable; and
- adequate separation between milking areas and any premises where animals are housed in order to prevent contamination of milk by animals. Where separation is not possible, adequate measures should be taken to ensure that the milk is not contaminated.

Immediately after milking, the milk should be stored in properly designed and maintained tanks or cans in a clean place.

Storage temperatures and times should be such that minimizes any detrimental effect on the safety and suitability of milk.

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The time and temperature conditions for milk storage at the farm should be established taking into account the effectiveness of the control system in place during and after processing, the hygienic condition of the milk and the intended duration of storage. In situations where the milk cannot be chilled on the farm, collection and delivery of this milk to a collection centre or processing facility within certain time limits may be required. These conditions may be specified in legislation, in Codes of Practice, or by the manufacturer receiving the milk in collaboration with the milk producer and the competent authority.

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Self-check 7	Written test
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Directions: Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

Test I Short Answer Questions

1. write down the cleaning and sanitising programme?(5pts)
2. Define Document control? (5pts)

Note: Satisfactory rating - 10 points

Unsatisfactory - below 10 points

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

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