



Small Scale Irrigation Development Level I

Model TTLM

Learning Guide -#10

Unit of Competence: Support Irrigation for Pasture Establishment

Module Title: Supporting Irrigation for Pasture Establishment

LG CODE: AGR SSL1 M10 Lo1-Lo3

TTLM CODE: AGRSS1 TTLM1218V2

Nominal Duration: 20 Hours

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This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- ❖ **Prepare Materials, Tools and Equipment for Irrigated Pasture**
- ❖ **Undertake pasture establishment under irrigation**
- ❖ **Handle irrigation materials and equipment for pasture establishment**

This guide will also assist you to attain the learning outcome stated in the cover page.

Specifically, upon completion of this Learning Guide, you will be able to –

- ✓ Identify appropriate materials, tools and equipment for male and female
- ✓ Conduct check up on all materials , tools and equipment
- ✓ Use techniques when loading and unloading
- ✓ Select and check suitable personal protective equipment for females and males
- ✓ Provide work support
- ✓ Identify and report occupational health and safety hazards
- ✓ Provide and follow instruction and direction, and seeking clarification
- ✓ Identify site and preparing land
- ✓ Identify pasture establishment methods under irrigation.
- ✓ Undertake work tasks in a safe manner.
- ✓ Carry out interactions with customers.
- ✓ Observe enterprise policy and procedures
- ✓ Report problems or difficulties in completing work.
- ✓ Store waste materials produced during work
- ✓ Handle and transport materials, equipment and machinery
- ✓ Maintain a clean and safe work site

Learning Activities

1. Read the specific objectives of this Learning Guide.
2. Read the information written in the “Information Sheets 1”.
3. Accomplish the “Self-check” in page -----.
4. If you earned a **satisfactory** evaluation proceed to “Operation Sheet” in page -----. However, if your rating is **unsatisfactory**, see your teacher for further instructions or go back to Learning Activity #1
5. Submit your accomplished Self-check. This will form part of your training portfolio (if necessary)
6. Read the “Operation Sheet” and try to understand the procedures discussed.

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7. Request access to the materials required for that particular practical session. Practice the steps or procedures as illustrated in your learning guide. Go to your teacher if you need clarification or you want answers to your questions or you need assistance in understanding a particular step or procedure

8. Do the “LAP test” in page ----- (if you are ready) and show your output to your teacher. Your teacher will evaluate your output either satisfactory or unsatisfactory. If **unsatisfactory**, your teacher shall advice you on additional work. But if **satisfactory** you can proceed to the next Learning guide.

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INTRODUCTION:

Pasture is a land on which cattle can be kept for feeding or ground covered with grass or suitable for the grazing of livestock. Irrigation for pasture is application of water to the land that is used for grazing purpose. Pasture land is manually developed grassland for the production of forage crop to feed the livestock.

Pasture lands in the narrow sense are enclosed tracts of farmland, grazed by domesticated livestock, such as horses, cattle, sheep or swine. The vegetation of tended pasture, forage, consists mainly of grasses, with an interspersed of legumes and other forbs (non-grass herbaceous plants).

Irrigated pastures are lands planted to introduced or native forage species that receive periodic irrigation and are harvested by livestock.

1.1 identify required materials, tools and equipment according to supervisor’s instruction

Pasture development use equipments which range from sophisticated to locally available materials...

Some of these tools, materials and equipments utilized for pasture development include;

Tools for irrigation work:-

- **Wheel barrow:** used to transport materials and tools, soils and manure.
- **String line:-**used to create a straight line for lay outing.
- **Spade:-** used for digging and making bunds and ridge.
- **Shovel:-** used to move and loose soil.
- **Rake:-**used to remove weeds, small stones etc.
- **Tape measure:-**measuring length and lay outing.
- **Crow bars:-**used for digging channels in hard soils.
- **Brooms:-**used to cleaning terraces garden path etc
- **Harness:-** To tie the dairy
- **Plough: -** To cultivate pasture land
- **Tractor** with its accessories:- To plough and transport goods

- **Weighing scale:-** to measure the condition and status of the pastures
- **Graduated cylinder:-** To measure the liquid materials
- **Watering can:-** To fetch and watering purposes
- **Store:-** To keep materials safely
- **Chopper:-** To cut and minimize courser forages
- **Watering plastic tube:-** To supply water and irrigating forage
- **Water pump:-** To deliver water from the source to the point of interest

1.2 Conducting Checks on all materials, tools and equipment

It is essential to check irrigation system, tools and equipments for damage or malfunction and shall report damage or malfunction to the authorized representative in writing.

If failed to maintain the broken or malfunctioning irrigation system components within few days of the breakage or malfunction, there will be a loss due to damages resulting from the broken irrigation system component. Hence, it is necessary to check the system, materials and equipments. In addition, maintenance of the system has to be carried out regularly.

Scheduled Maintenance and check:

The repairs and maintenance that need to be done and state the tools we need to carry out routine maintenance and repairs. Use one of the activities on your pasture farm and compile a maintenance schedule for the specific activity.

Pre season maintenance	<ul style="list-style-type: none"> - Make sure the equipment is ready for use - replace worn parts, test it to ensure all components are working - Service and lubricate all moving points - grease nipples - Calibrate sprayers for correct application
Maintenance during use	<ul style="list-style-type: none"> - Daily – Lubricate, check water and oil levels , before commencement of work and after lunch break - Fill with fuel at the end of the day - Check tire pressure, clean air filter - Clean the equipment Weekly – - Check for worn parts, lubricate when it reached the required no of hours. - Replace - oil and oil-, fuel- or air filters. - Wash after use before parked away for the weekend or when moving from one land to the other - prevent the spreading of weeds or diseases

Post season maintenances	<ul style="list-style-type: none"> - Replace all worn parts - Clean thoroughly Wash after use - Service and lubricate before parking - Store in place where it cannot be damaged - Disinfect facilities such as shearing sheds or packing facilities
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1.3 Techniques used when loading and unloading materials

The techniques used when loading and unloading materials should demonstrate correct manual handling and minimize damage to the load and the vehicle while transporting irrigation equipments.

The most common techniques of loading and unloading materials use the following guidelines:

- ❖ Develop an operations plan that describes procedures for loading and/or unloading.
- ❖ Conduct loading and unloading in dry weather if possible.
- ❖ Cover designated loading/unloading areas to reduce exposure of materials to rain.
- ❖ Consider placing a seal or door skirt between delivery vehicles and building to prevent exposure to rain.
- ❖ Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible.
- ❖ Load/unload only at designated loading areas.
- ❖ Pave loading areas with concrete instead of asphalt.
- ❖ Avoid placing storm drains in the area.

Inspection

- ❖ Check loading and unloading equipment regularly for leaks, including valves, pumps, flanges and connections.
- ❖ Look for dust or fumes during loading or unloading operations.

1.4 Selecting and checking Suitable personal protective equipment (PPE)

Personal protective equipment (PPE) is used to protect an individual from hazards associated with their work tasks or environment. Specific types of personal protective equipment include protective clothing, eyewear, respiratory devices, protective shields, gloves, and hearing protection.

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Personal protective equipment is not a substitute for engineering controls such as chemical fume hoods and bio safety cabinets, or for administrative controls and good work practices. PPE is used in conjunction with these controls to provide safety and maintain health.

Some of the commonly used PPE include the following:

❖ **Eye protection**

It is required to use eye protection equipments like goggle, eye shield, to protect our eye from dusts, chemicals, etc by all workers engaged in hazardous activities or are exposed to identify eye hazards.

❖ **Hand Protection**

It is required to use appropriate hand protection when hands are exposed to hazards, such as:

- Skin absorption from harmful substances;
- Cuts, lacerations or abrasions;
- Chemical exposure;
- Thermal burns and/or temperature extremes
- Potentially infectious material.

❖ **Body Protection**

- **Chemical Resistant Clothing:** Protective apparel designed to provide a barrier against a variety of chemical hazards. Chemical resistive clothing may be required for tasks where chemical splashing is anticipated or large volume transfers are conducted. Prior to selection of chemical resistant clothing, EH&S should be consulted;
- **Laboratory Apparel and Scrub Suits:** A wide variety of styles and materials are available to protect employees during laboratory operations. The selected type of lab coat or other apparel is designed to protect the wearer against accidental splashes or day-to-day handling of chemicals;
- **Clean room Apparel:** Clean room apparel is designed and classified to meet federal requirements for the control of airborne particles

1.5 Providing Irrigation support according to OHS requirements and according to workplace information.

What is occupational health and safety? OHS is a discipline with a broad scope involving many specialized fields.

Providing irrigation support is needed to increase the income and food security of smallholder communities on sustainable bases, it aims to achieve irrigation output and scheme level.

This will be done by:-

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- Strengthening extension capacity.
- Proving training
- Encouraging the active involvement of civil society.
- Developing linkage between irrigation customers, irrigation technical workers input and produces markets.

Irrigation is the application of water to soil for the purpose of supplying the moisture essential for plant growth. Irrigation plays a vital role in increasing crop yields and stabilizing production. Irrigation work requires support to be effective and efficient. At the farm level, the following basic conditions should be met to make irrigated farming a success:

- the required **amount** of water should be applied;
- the water should be of acceptable **quality**;
- water application should be properly **scheduled**;
- appropriate irrigation **methods** should be used;
- salt accumulation in the root zone should be prevented by means of **leaching**;
- the rise of water table should be controlled by means of appropriate **drainage**
- Plant **nutrients** should be managed in an optimal way.

The above requirements are equally applicable when the source of irrigation water is treated wastewater. Nutrients in municipal wastewater and treated effluents are a particular advantage of these sources over conventional irrigation water sources and supplemental fertilizers are sometimes not necessary. However, additional environmental and health requirements must be taken into account when treated wastewater is the source of irrigation water.

1.6 Identifying and reporting OHS hazards

Hazard identification

Hazard identification is a process used to identify all possible situations where people may be exposed to injury, illness or disease, the type of injury or illness that may result from these and the way in which work is organized and managed. It is the first part of a risk management strategy described in Occupational Health & Safety Management System (OHSMS).

Workplace Health and Safety Regulations require employers to ensure that appropriate measures are undertaken to identify all hazards and to manage risk in the workplace.

Hazard: a situation at the workplace capable of causing harm (i.e. capable of causing personal injury, occupationally related disease or death).

Risk: the chance of a hazard actually causing injury or disease. It is measured in terms of consequences and likelihood.

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Risk Management: the overall process of risk identification, risk analysis, control of risks and risk evaluation

Risk Control: that part of risk management which involves the implementation of policies, standards, procedures and physical changes to eliminate or minimize adverse risks.

Reporting Hazards and Accidents

Employees are required to report any situation or occurrence in the workplace that may present a risk or have the potential to affect the health and safety of employees or others in the workplace.

It is required that all injuries, incidents and hazards are properly reported, investigated and recorded in accordance with the procedures detailed below.

An **accident** is commonly used to describe an incident which has resulted in an injury.

An **incident** is any unplanned event resulting in or having the potential for injury, ill health, damage or loss.

Self-Check 1	Written Test
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Name: _____

Date: _____

Directions: Answer all the questions listed below. Illustrations may be necessary to aid some explanations/answers.

1. Write some of the tools and equipments used in pasture irrigation work? (5 pts)
2. List irrigation PPEs? (5pts)
3. Discuss the techniques used to load and unload irrigation equipment? (5pts)
4. Write few OHS hazards? (5pts)

Note: Satisfactory rating - 15 points and above Unsatisfactory - below 15 points

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

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Operation Sheet 1	Identification of irrigation equipments
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Objectives: - To familiarize the students with the identification of different irrigation equipments used for pasture establishments.

Procedures:-

1. Observe different types of irrigation equipment.
2. Sort and select different types of irrigation equipment based on their size and their uses.
3. Checks and prepare before use it.

Information sheet – 2	Undertake pasture establishment under irrigation
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2.1 Follow supervisor’s instruction and direction when necessary

Supervisor’s instruction:-is a ways of directing or giving information to undertake pasture establishment under irrigation work or a statement that describes how to do something.

Why follows **supervisor’s instruction** when you under take irrigation work?

- ❖ To reduce risk of injury
- ❖ To eliminate faulty/illegal uses
- ❖ To improve outcomes
- ❖ To save time
- ❖ To correct all mistakes and plagiarism/illegal use
- ❖ To learn how to follow instructions

2.2 Identifying Site Selection and Land Preparation

Procedures of pasture establishment

1. Site selection for Irrigated Pastures

The first requirement for development of an irrigated pasture is a source of high quality water low in salt and sediment. The suitability of irrigated pasture is highly dependent on the availability of water source, topographic characteristics of the land, soil type, climatic conditions and land use practices.

Topography: - Topography must be suited for cultivation and irrigation water management.

Soil:- Soils should be:

- Deep, well-drained, permeable, with good water holding capacity;
- Free of rocks;

- Of low salinity or alkalinity, and
- Not susceptible to erosion.

Except for soils with high water tables or appreciable salt concentrations, soil texture does not restrict the potential of developing irrigated pastures.

2. Species Selection for Irrigated Pastures

The best forage species for irrigated pastures depends upon the landowner’s objectives and managerial abilities. The forage species needs to be:

- Adapted to climatic and soil conditions;
- Capable of high forage yields with increasing inputs (i.e. fertilizer, grazing systems, water management);
- Long-lived;
- Palatable to livestock;
- Nutritious; and
- Capable of regrowing after grazing or haying.

3. Land preparation

Land preparation activities include land clearing and seed bed preparation.

A. Land clearing

It refers to the activities to remove all unwanted plant materials and other things from the land. The land can be cleaned by hand cutting, by fire and by using land clearing machines like dozer. Which type to use depends on the negative impact on the bio –diversity of the area and cost.

B. Seed-bed preparation

Pastures usually require a well- prepared seed –bed for good germination and establishment. Good seed-to-soil contact is essential to maintain adequate moisture near the seeds. This moisture is necessary for germination and for the small root systems of young grass seedlings. The type of seedbed preparation that is chosen will depend on the type of equipment available and whether a new pasture is being established (conventional tillage) or an existing pasture is being renovated (no-till drill).

Two methods of seed –bed preparation are recommended.

i. Conventional Tillage

Land tilling refers to plowing (turning over) of the soil. A properly prepared seedbed is a key step in pasture establishment. Conventional tillage should be used when a uniform seedbed is needed. Large soil clods and excess sod will impact seed germination. For conventional seeding, prepare a fine and firm seedbed by disking followed by rolling the field with a cult packer after the final disking. Preparing a firm seedbed will allow capillary action to draw water to the soil surface where moisture is needed for seed germination, and will also help sustain small seedlings during periods of dry weather.

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ii. Zero tillage

No-tillage involves using herbicides to kill existing vegetation and then seeding directly into the residue. No-till seedbeds must also be prepared by reducing surface residue prior to seeding by hard grazing or hay removal [most are late summer for fall plantings]. The advantages of no-tillage are the reduction of passes over the field, potential reduced soil erosion, and improved moisture conservation. The disadvantages of no-till are slower and less uniform seedling emergence.

4. Seed quality considerations

Selection of quality seed is the important aspect towards the success in the establishment of pasture. Seed quality can be determined by proportion of seed that would germinate to form in to healthy plants.

The following points should be considered while selecting a seed for pasture establishment.

i. Seed viability

The viability of any seed is its capacity to germinate when it is sown under suitable conditions for germinations. The purchased seed should contain only minimum quantity of dead seeds.

ii. Purity

The seed should be free from contamination due to the seeds of other species, inert material, pests and disease infestation, soil, straw and the like.

iii. Seed size

Seed size is another aspect of quality seed and important component of seedling vigour.

In germination stage seedlings are dependent of food stored in the seed. If the seed are bold and similar in the shape and size, then seedlings emerging from these will also likely to be similar in vigour and growth.

iv. Seed dormancy

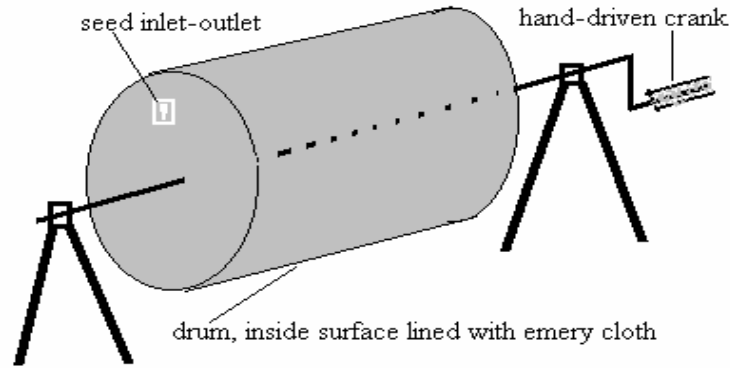
Seed dormancy is the resting period and a natural phenomenon which prevent seed germination. The reason for seed dormancy may be due to:

- ✓ Premature harvest
- ✓ Thick seed coat
- ✓ Chemicals which inhibit seed germination

Methods of breaking seed dormancy

Mechanical scarification: The seed coat is abraded by passing over abrasive surfaces or rubbing with sandpaper if sowing small quantities. For large quantities, use drum scarifiers. These are seed-mixer drums with an inner surface lined with abrasive material.

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Hot-water treatment: Immersion of seed in hot water, the temperature and duration of treatment depending on species.

For example:

5. Sowing/planting

Sowing is the processes of planting seeds.

Sowing consideration

Seed rate

Seed rate depends primarily on the viability and purity of the seed. Furthermore, seed rate depends on seed size, pure stand or mixture, amount of rainfall and soil fertility. As a general guideline, for row planting, sow grasses at 6–8 kg/ha, legumes at 3–4 kg/ha, and fodder shrubs at 10–15 kg/ha. When broadcasting seed, sow at double the rate recommended for row planting.

Sowing Timing:

The most desirable time to seed non-irrigated areas is immediately before the season of the most reliable rainfall, and when temperature is favorable. Sow perennial species at the onset of the longest wet season when the soil has received sufficient moisture to support germination and establishment.

Spacing: Generally, spacing between rows should not exceed 25–45 cm and within-row plant spacing should be 5–15 cm.

Depth: Generally, the smaller the seed the shallower the depth of planting. Usually, grasses are sown at the depth of 1–1.5 cm, while medium-sized legume seeds are sown at a 2.5 cm depth.

2.3 Method of pasture establishment under irrigation

The principles of pasture establishment are similar to those for establishing crop.

There are different types of pasture establishment methods;

2.3.1 Broadcasting (by hand or machine) or seed drilling

Manual broadcasting can be done on small scale where the area is small.

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Machines are used where the land is extensive. Fertilizer spreaders can be used to help in broadcasting. After broadcasting, seeds should be lightly covered with soil. Covering can be done either by dragging the trees branches behind the tractor or use of Cambridge rollers in areas not prone to erosion.

Seeding using seed drill is usually the best because the seeds are covered naturally.

2.3.2 Over sowing or sod seeding:-is the improvement of an existing pasture by seeding the poor one with an improved pasture. The old grass should be moved or grazed before seeding to improve germination.

2.3.3 under sowing:-pasture is established under companion crops such as maize, wheat, oat or barley. The main aim is to reduce the numbers of operation to be undertaken. Like double cropping.

2.3.4 Vegetative propagation

Some grasses do not produce viable seeds. Therefore establishment through vegetative means i.e vegetative cutting or root cutting is required. Such grasses are nappier or elephant grass, kikuyu grass and star grass.

2.4 Undertake work tasks in safe and environmentally appropriate manner

The benefits of irrigation have resulted in lower food prices, higher employment and more rapid agricultural and economic development.

But irrigation and water resource development can also cause social and environmental problems. Irrigation represents an alteration of the natural conditions of the landscape by extracting water from an available source, adding water to fields where there was none or little before, and introducing man-made structures and features to extract, transfer and dispose of water.

Irrigation projects and irrigated agriculture practices can impact the environment in a variety of ways. For this review we will distinguish the following sources of environmental impact:

- a) Construction of irrigation projects,
- b) Water supply and operation of irrigation projects, and
- c) Irrigated agriculture management practices.

To bring sustainable development, considerable attention towards the environment should be given through various mechanisms:

- ❖ Emphasizing responsible investment practices that minimize the impact of business operations on the environment;
- ❖ Pioneering innovative investments and projects that help preserve ecosystems and protect the health and safety of citizens;

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- ❖ Launching various campaigns and initiatives to raise awareness of environmental issues and promoting responsible social practices amongst community members including the wise use of resources and the promotion of recycling.

2.5 Carry out interaction with staff and customers in positive and professional manner

The term “customer interaction” may have several definitions. Let’s define it as communication between one of staff members and the customer. Watch your people execute these fundamentals daily. “Ask the customer what they want and give it to them” has long been our premise for doing business but that is no longer enough.

Positive interactions with staff help create an atmosphere which is calming and safe, especially it encourage treating each other with kindness and respect.

An environment where staff relationships are positive where staffs are able to express their emotions appropriately and where staff feels satisfaction within their job helps create an ideal environment. High quality interactions lead to meaningful experiences on both sides.

An environment with clear boundaries that is rich in open ended materials allows to actively and independently engage in activities lends it to positive interactions.

Effective communication allows people of all ages to give direction, praise, show respect, display emotion, and tell a story! Talking, listening and body language are important components of communication.

2.6 Enterprise policy and procedures to handle and disposal of materials

Follow procedures and enterprise policy when you handle and dispose waste materials to prevent environmental pollution. If waste materials are disposed ever where, it may affect seedling and also loss agricultural land.

Benefit of enterprise policy and procedure:-

- ❖ To save time effort.
- ❖ Provide detailed job description.
- ❖ Help to avoid conflict.

2.7 Reporting the problem or difficulties in completing work to supervisor

Damaged or fault irrigation component in pasture irrigation system should be recorded and reported to the supervisor.

Why do you need safety reporting procedures?

Because it helps you to identify health and safety problems and assist with implementing solution

A simple reporting procedure will help you to obtain important information about health and safety issues in the work place, identify problems when they arise and address them.

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Self-Check 2	Written Test
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Name: _____

Date: _____

Directions: Answer all the questions listed below. Illustrations may be necessary to aid some explanations/answers.

1. Determine the criteria for site selection that you would use to select a site and the layout you would use for the irrigation pasture? (5 pts)
2. List some elements which help to have positive interaction with staff and customers? (5pts)
3. How could you undertake irrigation work in a safe and environmentally appropriate manner? (5pts)
4. List few enterprise policy and procedures in relation to workplace practices? (5pts)

Note: Satisfactory rating - 15 points and above Unsatisfactory - below 15 points

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

Operation Sheet 2	Undertaking pasture establishment under irrigation
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Objectives: - To familiarize the students how to establish pasture under irrigation.

Procedures of pasture establishment

1. Select the site for pasture establishment.
2. Select forage species.
3. Prepare the land for pasture establishment.
4. Consider seed quality.
5. Sowing/plating.

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3.1 Storing waste materials produced during work according to supervisor's instruction

- ❖ All waste has the potential to pollute the environment if not handle or store properly.
- ❖ Store all wastes materials safely and securely in suitable containers.
- ❖ Separate hazardous waste from other types of waste and keep different types of hazardous waste separately.
- ❖ Prevent liquid wastes and pollutants from escaping into drains, watercourses or surrounding ground.

3.2 Handle and transport materials, equipment and machinery according to supervisor's instruction

Material handling equipment (MHE) is used for the movement and storage of material within a facility or at a site.

- ❖ Maintain equipment and tools regularly.
- ❖ Arrange equipment for the purpose of safety and ease in maintenance.
- ❖ Tunes off/adjust power equipment when not in use.

MHE can be classified into the following five major categories:

- I. **Transport Equipment.** Equipment used to move material from one location to another (e.g., between workplaces, between a loading dock and a storage area, etc.). The major subcategories of transport equipment are conveyors, cranes, and industrial trucks. Material can also be transported manually using no equipment.
- II. **Positioning Equipment.** Equipment used to handle material at a single location so that it is in the correct position for subsequent handling, machining, transport, or storage. Unlike transport equipment, positioning equipment is usually used for handling at a single workplace. Material can also be positioned manually using no equipment.
- III. **Unit Load Formation Equipment.** Equipment used to restrict materials so that they maintain their integrity when handled a single load during transport and for storage.
- IV. **Storage Equipment.** Equipment used for holding or buffering materials over a period of time. Some storage equipment may include the transport of materials. If materials are block stacked directly on the floor, then no storage equipment is required.
- V. **Identification and Control Equipment.** Equipment used to collect and communicate the information that is used to coordinate the flow of materials within a facility and between a

facility and its suppliers and customers. The identification of materials and associated control can be performed manually with no specialized equipment.

Transporting and stacking large equipments has caused numerous injuries to and deaths of operators of the machinery and people near the scene of operations.

Many accidents occur when equipments topple off the forks of a front-end loader and strike the operator. Accidents can be avoided by using suitable equipment for the job and by taking care when using the equipment.

3.3 maintaining a clean and safe work site up on completion of work

Cleanliness is the most important elements in maintaining a healthy and safe work environment.

Site maintenance (making the site good)

- 1) The job site shall be kept in a neat, clean, and orderly condition at all times during the installation process.
- 2) All scrap and excess materials are to be regularly removed from the site and not buried in trenches.
- 3) Trenching, laying pipe and backfilling shall be continuous so that the amount of open trench at the end of each work day is minimized.

Many office managers strive to maintain a clear work site policy, few succeed. However, each employee should be responsible for keeping their individual work area tidy and clean.

Like Health & Safety, maintaining a clean work environment is the responsibility of everyone.

However, there is only so much cleaning the team can do during each shift and in such cost conscious times it makes sense for employees to adopt some simple good housekeeping practices and allow the cleaning team to concentrate on hygiene and deep cleaning tasks.

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Self-Check 3	Written Test
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Name: _____

Date: _____

Directions: Answer all the questions listed below. Illustrations may be necessary to aid some explanations/answers.

1. Why do you need to clean your working area? . (5 pts)
2. How could you dispose waste materials produced in pasture irrigation work? (5pts)
3. Write how you transport and handle equipments? (5pts)
4. List some irrigation wastes? (5pts)

Note: Satisfactory rating - 15 points and above Unsatisfactory - below 15 points

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

Lap test	Practical demonstration
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Name:- _____ Date: _____
 Time started: _____ Time finished: _____ --

Instructions:-

You are requested to perform the following activities:-