

Farm Tools and Equipment

Introduction

- (i) Farm tools and equipment perform specific jobs in the farm.
- (ii) They make work easier and more efficient.
- (iii) They can be classified according to their uses.

(a) Garden tools and equipment

<i>Tools</i>	<i>Uses</i>
1. <i>Panga</i>	Cutting and light digging.
2. <i>Jembe</i> /hand hoe	Cultivation, digging holes and trenches.
3. <i>Fork jembe</i>	Cultivation, digging out roots, harvesting of root crops.
4. <i>Rake</i>	Collecting trash, breaking large clods, levelling and removing stones from a seedbed and spreading of organic manure.
5. <i>Spade</i>	Scooping and carrying of soil, sand, concrete mixture and manure.
6. <i>Shovel</i>	Digging, moving soil, sand fertilisers and grains.
7. <i>Trowel</i>	Scooping seedlings during transplanting and digging planting holes for seedlings.
8. <i>Pruning shears</i>	Pruning and trimming twigs and hedges.
9. <i>Secateur</i>	Cutting young stems and pruning branches.
10. <i>Budding knife</i>	Cutting young stems during budding and grafting.
11. <i>Axe</i>	Cutting big trees and roots and splitting logs of wood.
12. <i>Pick axe</i>	Digging, breaking stones and digging out roots.
13. <i>Mattock</i>	Digging hard soils.
14. <i>Planting line</i>	Aligning planting rows.
15. <i>Watering can</i>	Watering plants in nursery bed.
16. <i>Wheelbarrow</i>	Transportation of soil, fertilisers and farm produce.
17. <i>Sickle</i>	Cutting grass and harvesting cereals.
18. <i>Pruning saw</i>	Cutting old wood stems and pruning big branches.
19. <i>Dibber</i>	Making planting holes (dibbling).
20. <i>Knap sack sprayer</i>	Applying agro-chemicals by spraying.
21. <i>Wire stretcher</i>	Tightening and stretching wires during fencing.

(b) Livestock production tools and equipment

<i>Tools</i>	<i>Uses</i>
1. <i>Drenching gun</i>	Administering liquid drugs to animals orally.
2. <i>Bolus gun</i>	Administering solid drugs or tablets to animals orally.

3. Shears Cutting off wool from sheep.
4. Hypodermic syringe .. Administering drugs by injection e.g. in vaccination.
5. Stirrup (bucket) pump Application of acaricide by hand spraying.
6. Lactometer Checking specific gravity of milk.
7. Burdizzo Used in bloodless method of castration.
8. Halter Rope designed to restrain the animal.
9. Trimming knife Cutting short the overgrown hooves.
10. Elastrator Stretching rubber ring during castration, dehorning and docking of lambs.
11. Iron dehorner Applies heat on horn bud to prevent growth of horns.
12. Nose ring Fixed into the nose of a bull to restrain and lead it.
13. Strip cup Detecting mastitis in milk producing animals.
14. Trocar and cannula Relieving a bloated animal of gases particularly ruminants.

(c) Workshop tools and equipment

<i>Tools</i>	<i>Uses</i>
1. Spanner	Tightening and loosening nuts and bolts.
2. Pliers	Cutting small wires and thin metal and gripping firmly.
3. Files	Sharpening tools, smoothening or shaping edges of metals.
4. Rasps	Smoothening and shaping of wooden structures.
5. Chisels (wood)	Making grooves in wood.
6. Cold chisel	Cutting and shaping metal.
7. Screw driver	Driving screws in or out of wood or metal.
8. Saws	
- Cross cut saw	Cutting across the grain of wood.
- Rip saw	Cutting along the grain of wood.
- Hack saw	Cutting metals.
- Bow saw	Cutting branches of trees.
9. Pincers	Cutting and withdrawing nails.
10. Braces	Boring holes in woodwork.
11. Drill	Boring holes in metalwork and woodwork.
12. Hammer	
- Claw hammer	Driving in, removing and straightening nails.
- Ball pein	Driving in nails, rivets and straightening metals. Also used on cold chisel.
13. Mallet	Hammering or hitting wood chisel.
14. Planes	
- Block plane	Smoothening end-grains of wood.
- Smoothening plane ..	Smoothing and clearing up surface of wood.
- Jack plane	Fine finishing on wood.
15. Spokeshave	Smoothening curved surfaces of wood e.g. handles of <i>jembes</i> , axes, etc.
16. Measuring equipment	
- Tape	Measuring length and distance.
- Rulers	Measuring short length.
- Square.....	Measuring length and angles.

<i>Tools</i>	<i>Uses</i>
- Marked strings	Measuring distances.
- Marking gauge	Marking parallel lines to the edge of stock.
- Mortise gauge	Marking two parallel lines to the edge of stock.
17. Fencing plier	Cutting wires, hammering staples when fencing.
18. Vice and clamps	Firmly holding pieces of work together.
19. Spirit level	Measuring horizontal or vertical levels.
20. Oil can	Applying oil in fine quantities.
21. Grease gun	Applying grease in nipples of machines.

Care and Maintenance of Tools and Equipment

Reasons for Maintenance

- (i) To increase durability.
- (ii) To increase efficiency.
- (iii) Reduce costs of replacement and repair.
- (iv) For safety of the user.

Methods

- (i) Use tools for the right work.
- (ii) Proper handling when using tools or equipment.
- (iii) Clean and oil tools after work.
- (iv) Keep the tools in their right places.
- (v) Replace and repair worn-out parts.
- (vi) Sharpen cutting or digging edges of the tools.
- (vii) Grease moving parts to reduce friction.
- (viii) Use safety devices in the workshop to reduce accidents and breakages.

WORK TO DO

1. State the uses of the following farm tools:
 - (a) *Jembe*
 - (b) Secateurs
 - (c) Drenching gun
 - (d) Spokeshave
2. What garden tools would you require to prepare a seedbed for vegetable growing?
3. What are the following tools used for?
 - (a) Fencing pliers
 - (b) Strip cup
 - (c) Garden trowel
 - (d) Hacksaw
4. Which servicing points of a knap-sack sprayer require your attention before use?
5. (a) State five reasons for proper care and maintenance of farm tools.
 - (b) Explain the care and maintenance practices carried out on farm tools.
6. Suppose you want to construct a simple crush on the farm. What hand tools and equipment would you require to accomplish the job?
7. Under what conditions would you require to use a forked *jembe* rather than the ordinary *jembe*?
8. Briefly explain precautionary measures to be taken when using farm tools.
9. State functional differences between the following farm tools:
 - (a) Pick axe and mattock.
 - (b) Cold chisel and wood chisel.
 - (c) Grease gun and bolus gun.
10. You are intending to make a wooden door for a poultry house.
 - (a) Name the tools you would require for the work.
 - (b) Outline the procedures followed in accomplishing the work.