

JOB ROLE – FLORICULTURIST (OPEN CULTIVATION)

Sector – Agriculture

(Qualification Pack Code: AGR/Q0701)

PPT's for Class XI



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UNIT 3: TOOLS AND EQUIPMENT

Session 1: Implement Used for Preparation of Land

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Session Objectives

The student will be able to :

- Identify implements used in preparation of land.

Introduction

Introduction of modern technology in agriculture, and innovative research and development of various machines and tools, flower cultivation has become easier and more profitable than in the past. A cultivator, usually, adopts mechanical farming due to several factors, like uncertainty of weather, unavailability of skilled labour and time constraints. Mechanised farming, thus, helps in completing tasks in less time, saves excessive cost of labour, and is available at all times. Various advanced tools and equipment are now in practice, which eases the cultivation of various crops.

Plough

Mouldboard plough:

This is made of carbon steel or steel alloy, the base of which is at the right angle triangle. The size of the mouldboard plough is measured by the width of the furrow that is opened by the plough. Generally, it can open a furrow of about 20 cm and above. It throws the furrow slices only on one side.

Disc plough:

It consists of moving circular steel discs of varying sizes. The size of discs includes its diameter and thickness. Discs in different ploughs used are 50–90 cm in diameter. These can work well in sticky soil, as well as, in very hard and dry soil. It is much heavier and leaves the soil rough and cloddy.

Plough

Sub-soil single arm plough (*Patashi* plough):

This plough is useful for heavy soils. It consists of a single adjustable arm having shears at the base and breaks the hard pan developed below the soil surface. It improves drainage in water stagnant soils. It can be inserted up to 50 cm deep in the soil and is most suitable for making a trench of 5–7 cm wide.

Harrows

These are used for the preparation of finer soil by breaking clods, cutting weeds, pulverising the soil surface during field preparation. The harrows may be disc, spike, spring or blade types



Disc Harrows

Plank

It is a heavy wooden log, generally, used for compacting and levelling used for seed bed and field preparation for sowing the seeds. Planks are also used immediately after sowing the seeds to ensure proper covering of seeds with soil. It is also used for levelling the soil after ploughing.

Cultivator

A cultivator is used to stir and loosen the soil, breaking the clods and destroying the weeds. The cultivator performs intermediary ploughing and harrowing. It also maintains a good tilth, adequate aeration, prevents run-off, and evaporation losses. Cultivators may be shovel, disc and blade types. Tine and spike cultivators are used to tilth the soil



Summary

In this session you have learnt about the implements used in land preparation.

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