

Practical 9

PREPARATION OF POT FOR PLANTING, CLEANING, MEDIA PREPARATION AND FILLING

EXERCISE 9.1: PREPARATION OF MEDIA FOR GROWING DIFFERENT ORNAMENTAL PLANTS

Objective :

- To understand the steps for preparing ideal growing media for plants growing in pots/ containers

Delivery schedule : 01 period

Student's expectations/ Learning objectives:

- To get acquainted with different constituents of soil based and soil less growing medium
- To understand the procedure for making growing medium in right proportion

Pre-learning required: Knowledge about different media used for growing ornamental plants.

Handouts/material required/equipment's & tools: Soil (Clay/ Loam/ Sandy loam), FYM, Leaf mould, Sand, Peat moss, Perlite, Vermiculite, Lime, Gypsum, inorganic fertilizers, etc.

Introduction:

The ideal growing media is essential for quality seedling, sapling and pot plant production. The constituents of different types of growing media are Bagasse, Bark, Cinders, Clay, FYM, Garbage, Leaf mould, Moss, Peat moss, Perlite, Rice hulls, Sand, Saw dust, Soil, Vermiculite and Wood shavings. The characteristics of any growing medium are given below:

- ❖ Good drainage
- ❖ Proper aeration
- ❖ Proper salinity level

- ❖ Adequate nutrients
- ❖ Good water holding capacity

Procedure:

- Take the different constituents of the growing media and mix them thoroughly in different ratios (by volume). The composition of the growing media in nursery beds/ seed pans/ containers for different type of ornamental plants is given below:
 - Soil (Loam/ sandy loam): Sand: Leaf mould (one part each)
 - Soil (Clay/ Silt): Sand: Leaf mould:: 1: 2: 1
 - Soil (Clay/ Silt): Sand: Leaf mould: FYM:: 1: 1: 1: 1
 - Peat moss: Perlite: Vermiculite (one part each)
 - Peat moss: Sand:: 3: 1
 - Peat moss: Perlite:: 3: 1

Precautions:

- Do not use un-decomposed leaf mould or FYM
- Adjust the soil pH with addition of lime/ gypsum depending upon the plant to be grown



Ideal soil based growing medium (soil: sand: leaf mould: 1:1:1)

EXERCISE 9.2: POTTING, DE-POTTING AND RE-POTTING IN DIFFERENT ORNAMENTAL PLANTS

Objective :

- To recognize the importance of preparing pot for potting and repotting
- To understand the steps for preparing ideal growing media for plants growing in pots/ containers

Delivery schedule : 2 period

Student's expectations/ Learning objectives:

- To get acquaint with different types of pots/ containers used for growing ornamental plants
- To prepare pots for planting of ornamental plants
- To prepare soil based and soil-less growing medium
- To understand the procedure for potting, de-potting and re-potting of ornamental plants

Pre-learning required : Knowledge about potting, de-potting and re-potting of ornamental plants.

Handouts/material required/equipment's & tools: Containers (Pots), crocks (broken pieces of pots), pebbles, coarse sand, growing medium, plant material (seed/ bulb/ seedling/ sapling), secateur, pruning knife, hand trowel, dibbler, Khutti, watering can, fungicide and insecticide

Introduction:

Potting is a process of planting of new seedlings/ saplings of ornamental plants in a pot/ container with a suitable growing medium for its establishment. This requires a skill and a person becomes perfect with experience/ practice and patience. The growing medium in the containers is restricted and it also leads to restricted growth of plants, thus these require repotting. De-potting is the procedure to gently take out the plant from the pot/ container. Repotting is process of again planting the ornamental plant in the same or different container with suitable freshly growing medium after judicious root/ shoot pruning.

Procedure:

Potting:

- Get acquainted with different types of containers (earthen, plastic, concrete, brass, glass, metal, pvc, wooden, etc.) for growing ornamental plants.
- Select the appropriate container and ensure that there is a hole at the bottom for proper drainage of excess water. Otherwise, gently make the hole at the bottom of pot.
- Wash the container both from inside and outside with clean water
- Place 2-3 crocks on the drainage hole in such a way that it does not block the hole at a later stage
- Put smaller pieces of crocks on side and then put 2-3 cm thick layer of coarse sand or dry leaves
- Fill the pots with suitable growing medium and when the containers are half way filled then press the growing medium firmly and again fill upto the rim of the container, press the medium and ensure that 2-3 cm unfilled space is left for watering in the container
- Use above filled container for sowing of seeds or planting of bulbs or planting of seedlings/ saplings of ornamental plants
- With the hand trowel scoop out a hole in the centre of the pot and plant the seedling/ sapling in such a way that its roots are well spread in the container
- Put growing medium all around and press firmly so that no air pocket s are left.
- Do adequate watering
- Keep the container in a cool shady place

Repotting:

- Thoroughly do watering in the container in which repotting is to be done about 2-3 days prior to repotting
- Hold the ornamental plant with right hand between fingers and put the thumb alongside the container

- Turn the container upside down and tap the edge gently on the ground until the ball of the growing medium along with roots comes out
- Do adequate roots and shoots pruning before planting in the container
- Clean/ wash the container from inside/ outside and fill the container with fresh growing medium
- Do planting of the prepared plant after scooping out the growing medium as described in potting of the plant as above
- Do adequate watering and place the container at a cool and shady place for few days

Precautions:

1. Ensure for drainage hole at the bottom of the container
2. Clean/ wash the container
3. Use clean crocks, pebbles and sand
4. Use suitable growing media for different plant species
5. Moisten the growing medium before filling the container
6. Fill the growing medium firmly
7. Keep adequate space for watering
8. Use optimum size container depending upon the growth of the plant to be planted
9. Do potting/ repotting in a cool- shady place and keep them there until establishment
10. After establishing remove the plant from shady area and keep under optimum growing condition depending upon the requirement of different ornamental species

Observations:

S. No.	Name of the plant	Type of container	Size Height and Top diameter	Growing medium type	Remarks
1					
2					