

Peri-urban landscaping (Roof garden)

The art of creating the greenery and maintaining the greenery in the roof of the building is known as “**Roof Gardening**”. This is also known as Terrace gardening. The existing roof top can be effectively utilized for growing fruit plants, vegetables, spices, homestead medicinal plants, flower plants and ornamental plants.

Container plants may be kept on verges or bricks. Over the roof adequate drainage should be provided for the rain and excess irrigation water to drain off quickly. Water garden, rock garden, lawn, hanging baskets, climbers may form a part of roof garden. Always allow for the vertical growth rather than the horizontal growth.

- ❖ Since the garden is at a high level from the ground, the cost maintenance may go up as everything has to be carried up.
- ❖ But the more fundamental difference is in the depth of the soil. At ground level the depth may be unlimited with a source of groundwater, whereas on the roof the depth of the soil is shallow, not exceeding 90 cm, but generally varying between 20 and 60 cm.
- ❖ Not only the depth is shallow in roof garden, but the drainage is also good and hence water has to be replenished constantly by frequent watering.
- ❖ Large trees and shrubs are generally not grown on the roof as the growth of the tap root is limited by the roof below.
- ❖ Moreover, because of shallow depth, good drainage and frequent watering, the plant food in the soil leaches off more rapidly and is to be made good by more frequent replacement.

Planning :-

- ❖ The **first thing** to check before starting a roof garden is whether the roof surface can bear the weight of the soil. Soil, especially **wet soil, is much heavier than one can usually conceive.**
- ❖ **Secondly**, the roof should be made water-proof to prevent seepage of water into the room below and finally, **it should have adequate drainage so that rain and irrigation water drains off quickly.**
- ❖ Flower beds can be made directly on the roof. This can be achieved by placing the soil between the outer wall or the parapet and a wall built on the inner side with the help of moisture-proof wood shuttering stones, or bricks.
- ❖ The width of such boxes will vary according to the available space, the nature of the plants to be grown, and other factors. Such beds directly constructed on the roof surface are not preferred always, as they are of permanent nature and may also damage the roof.
- ❖ Alternatively, the best method will be to arrange a series of containers holding soil, such as boxes, pots troughs, tubs, etc., These are placed over wedges or bricks to leave a clear gap between them and the roof for proper drainage and passage of air.
- ❖ As for any other gardening a roof garden should also have a dominant focal point, like lawn or water garden or rock garden or a prominent climber (e.g., Bougainvillea, *Clerodendron splendens*, *Bignonia venusta*, climbing rose).
- ❖ On a roof the space available for gardening is limited; therefore, it will be a good idea to encourage vertical growth. This is the reason why a roof garden lover **should use more climbers and trailers** in his garden.
- ❖ **Hanging baskets should play a major role in a roof garden.** Various types of basket either containing flowering or foliage plants can be displayed with great advantage at suitable places. It is possible to grow a wide range of plant materials in a roof garden excluding, of

course, the large shrubs and big trees, **Ornamental plants suited for roof garden are as follows :-**

Flowers: *Impatiens balsamina, Celosia sp, Chrysanthemum sp, Cosmos bipinnatus, Gomphrena globosa, Tagetes erecta, Petunia hybrida, Portulaca grandiflora, Salvia splendens, Vinca rosea and Zinnia elegans.*

Ornamental trees: *One or two dwarf trees such as Plumeria sp. Callistemon lanceolatus and Gliricidia maculata can be grown as specimen plants. Some large to medium trees such as Araucaria cookii, Brassia actinophylla, Bauhinia purpurea, Plumeria alba and Callistemon lanceolatus, etc., can also be grown when they are still young*

Bulbs : A variety of bulbous plants of annual or perennial nature can be grown.

Water plants : Water-lilies and other water plants can be grown in the lily pool in cement tubs

Shrubs: *Acalypha hispida, Allamanda grandiflora, Barleria cristata, Bauhinia tomentosa, Clerodendron inerme, Duranta plumieri, Hamelia patens, Hibiscus rosasinensis, Mussaenda erythrophylla, Nerium oleander, Poinsettia pulcherrima, Tecoma stans, Thevetia nereifolia, Codium spp, Eranthemium elegans etc.*



