

Roof and Terrace Gardening

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Roof Gardening

Growing of plants on the roof of a house in pots containers constructed beds

OR

Development of an ornamental garden adopting suitable horticultural roof



- ❖ **Rapid urbanization, industrialization, land ceiling, construction of multistoried buildings, wide roads, offices, markets have resulted in non availability of land for gardening work in big cities and towns**
- ❖ **Ever increasing population in cities and increasing vehicles have resulted in alarming increase in pollution**
- ❖ **There is great need to break monotony and provide relaxation for the tiring mind**

Therefore plant lovers in cities and towns have the only option for Roof Gardening or Indoor Gardening

- ❖ **Roof gardening offers opportunity for growing both sun loving and shade loving plants (using agro-shade net and UV stabilized polythene)**



Use of Agroset Net



Use of UV stabilized polythene

**Size of the garden : depends on
availability of area and
choice of the owner**

Forms of garden : formal or informal

**Optimum open space should be kept for lawn
making and organizing functions**



Lawn in Roof Garden

Plants grown in box



Construction of roof

- ❖ Roof for garden should be very strong and water proof
- ❖ Architects, Civil Engineers and Experts point out that a small cement roof of the building can safely bear @ 48 Kg / sq ft
- ❖ Water stagnancy can be avoided by lime terracing with provision of proper slope
- ❖ After construction of roof, it is better to spread polythene sheet of 800 gauge thickness on the roof before making lawn, flower beds, rockery etc.

❖ Plan of garden should be finalized at the time of construction of the building so that lawn, rockery, ponds etc should get necessary brick cemented edge , protection from soil erosion and holding of water.



Soil :

Fertile loam, sandy loam or clay loam with sufficient organic matter – collected from cultivated area

Depth of soil :

As per type of plants, viz., annual, perennial, shrubs, climbers and grass etc.

Lay out :

- ❖ Simple and without many garden elements / features and varieties**
- ❖ Size and shape of lawn, flower beds, rockery, water pool, shrubs, bonsai, topiary etc should be as per the size of roof**
- ❖ Lawns and flower beds should be raised to avoid water logging during rainy season**



Lawn :

- ❖ Lawn may be made on any shape in plastic sheets of 800 gauge thickness.**
- ❖ Cemented edge should be made around the lawn to conserve soil & water**
- ❖ Soil mixture for Lawn :**
 - 2 parts garden soil**
 - 1 part leaf mould**
 - 1 part compost**
 - 1 part sand**

Soil mixture should be treated with 1% formalin

Soil should be pressed & grasses may be planted on the prepared ground by dibbling at 10-15 cm spacing

- ❖ Suitable grass for roof garden : Japanese grass (*Zoisia japonica*)
- ❖ The sheet of lawn with the polythene beneath can be rolled like a carpet and replaced & moved from place to place as per requirement



Construction of rockery, water pool, path gate etc.:

- ❖ These elements can be included in the garden but should be simple and well suited to the plan





Manures & Fertilizers:

- ❖ Adequate dried cowdung & liquid manure are preferable for roof garden**
- ❖ A fertilizer mixture of 15 : 15 : 15 N : P : K @ 5-10 g / pot / boxes in general**

After care :

- ❖ Regular care , viz., irrigation, weeding, manuring, training, pruning, pinching, potting & repotting are to be done as and when necessary**

Horticultural Roofs in Roof Gardening:

- ❖ For Anthurium, Orchid & House plants Agro Shade Net with different shading % (70-80 % for Anthurium, 35-50% for Orchids and other shade loving plants) can be used.**
- ❖ For Black-centered gerbera, Standard chrysanthemum and Carnation green house cum rain shelter with 200 micron UV stabilized polythenecan be used**

Suitable House Plants and Bonsai for Roof

Gardening:

- ❖ *Alocasia lowii*, Anthurium, *Asparagus plumosus*, Begonia, *Dieffenbachia amoena*, *Philodendron*, Ceylon Gold, Saintpaulia, Syngonium, Boston fern



Suitable Sun loving Plants for Roof Gardening:

- ❖ *Rose, Chrysanthemum, Gerbera, Annuals*
- ❖ Shrubs : *Beloperone guttata, Brunfelsia calycina, Poinsettia, Hydrengea, ixora, Mussaenda, Fortunella japonica*
- ❖ Climbers : *Bougainvillea, Garlic Vine (Pseudocalymma alliaecum), Clerodendron species, Campsis grandiflora*





Year round flower production in Roof Garden:

Month	Cut flower	Annuals	Shrubs/Climbers	Pot plants
January	Chrysanthemum, Gerbera, Gladiolus	Marigold, Pansy, Calendula etc	Bougainvillea ixora	Chrysanthemum, Marigold- Inca, Impatience
February	Gerbera, Gladiolus	Marigold, Pansy, Lupin, Poppy, Calendula etc	Poinsettia, Bougainvillea	Marigold- Inca, Impatience Euphorbia milli Dahlia
March	Dahlia Carnation Gerbera	Phlox Dianthus	Brunfelsia	Phius

Month	Cut flower	Annuals	Shrubs/Climbers	Pot plants
April	Heliconia Gerbera	Zinnia Cosmos	Barleria	Foxtail Orchid Aeridis odoratum
May	Heliconia Gerbera	Zinnia Cosmos Portulaca	May flower Calliandra	Dendrobium
June - July		Zinnia Cosmos Portulaca	Calliandra Beloperone	Dendrobium Spathoglotis
August		Zinnia Cosmos Portulaca Amaranthus	Exora Mussaenda Shrimp plant	Anthurium

Month	Cut flower	Annuals	Shrubs/Climbers	Pot plants
September	Heliconia	Bulsum Amarenthus	Ixora Mussaenda Shrimp plant	Anthurium Beloperone
October		Marigold	Alamanda	Beloperone
November	Chrysanthe mum Gerbera	Calendula Marigold	Bougainvillea	Chrysanthe mum Gerbera Spathoglotis
December	Chrysanthe mum Gerbera	Calendula Marigold Pansy etc	Bougainvillea Poinsettia	Kalanchoe Impatience

Terrace Gardening

A terrace is a raised space of ground constructed around a dwelling house or at the corner of a garden or on sides of a hill. When such a terrace is used for gardening it is called Terrace Gardening

A terrace garden is often referred to as the outdoor living or drawing room and to make it more cozy and private some sort of walls are to be constructed on the sides or ends.





Terrace Gardening

- ❖ **Low brick wall or stone retaining wall should be built as per level of the terrace. This will require a tall wall at the top according to the height of the terrace slope**
- ❖ **Terrace is used as outdoor living room for relaxing. Area under the foot should be dry. This can be achieved by providing paved terrace and grass terrace.**
- ❖ **Material for paved terracing : local stones, bricks, concrete, wood, gravel & mosaic tiles.**



Terrace Gardening

- ❖ **The paved surface should have very little plant growth**
- ❖ **Dwarf trees or shrubs can be planted amidst grass in the circular, rectangular or square beds. The selection of these trees & shrubs should fit with the architecture of the house and should have ornamental and aesthetic value.**



Terrace Gardening

- ❖ **Planting can be done in earthen pots, tubs, bowls and can be arranged artistically & specially in completely paved terrace.**
- ❖ **Hanging baskets displayed in the terrace adds beauty to the garden.**
- ❖ **Lily pool can be added to the terrace garden**

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Terrace Gardening

- ❖ **A sun dial or bird bath or a stone culture could be an adjunct to the terrace garden.**
- ❖ **Chairs and tables may be arranged for rest & relaxation which should be sturdy & made of wrought iron**
- ❖ **Plants used in terrace gardening should not obstruct the view of the building from outside**





*Flowers for Roof & Terrace
Gardening*



