

## Practical 5

# IDENTIFICATION OF ORNAMENTAL PLANTS FOR AVENUES AND LAWN- GRASSES, HEDGES, EDGES PLANTS OF OUR COUNTRY

### Introduction:

Different flowers and plants are identified based upon the knowledge of morphology and anatomy. For describing flower crops, every part of it is to be studied in detail and compared with similar structures of other plant. Every plant part has a name and its study is called as **Phytography**. It is a branch of taxonomy or plant systematic. It deals with the descriptions of plants and their organs (parts). The main plant parts used for description of flowering plants are given below:

- Roots (position and morphology)
- Stem (Branching pattern, texture, shape, bark-surface, form, modifications, etc.)
- Buds (position, protectiveness, time of sprouting, etc.)
- Foliage (Leaf-simple/ compound, insertion, arrangement, parts, stalk, base, apex, shape, serration/ margins, incision, venation, surface/ texture, sap, duration, etc.)
- Inflorescence (type, size and number of flowers, duration, etc.)
- Flowers (shape, symmetry, completeness, parts, arrangement, insertion, union of floral parts, calyx- sepals, corolla- petals/ tepals, colour, shape, size, androecium- stamens, anthers, gynoecium- stigma, style, ovary, fragrance, duration, etc.)
- Fruits (type, shape, size, colour, fragrance, duration, etc.)
- Ovule/ Seed (shape, size, colour, number, duration, etc.)

## EXERCISE 5.1: IDENTIFICATION OF MAJOR ORNAMENTAL TREES FOR AVENUES

### Objective :

- To identify various ornamental trees for avenues based on primary morphological characters.

**Delivery schedule :** 1 period

### Student's expectations/ Learning objectives:

- To get acquaint with different ornamental trees for avenues grown in India

**Pre-learning required :** Knowledge about ornamental trees for avenues.

**Handouts/material required/equipment's & tools:** Ornamental trees for avenues, hand lens and standard encyclopedia and books on Floriculture

### Introduction:

Tree is a perennial plant having distinct trunk and crown at the top. The important characteristics of trees used for avenue planting are given below:

- Good ornamental value all through the year
- Medium size (10-15m)
- Trunk straight to 5m
- Fast growing
- Unbreakable and non-drooping branches
- Non-thorny

### Description of ornamental tree

### Photograph

***Acacia auriculiformis* (Australian Acacia)**

**Family:** *Mimosaceae*

Dwarf to medium sized, evergreen tree with light yellow fragrant flowers year round.



***Acrocarpus fraxinifolius* (Pink cedar)**

Family: *Caesalpiniaceae*

Semi-deciduous, medium to tall tree with orange-red emerging foliage and greenish yellow flowers.



***Aesculus indica* (Horse chestnut tree)**

Family: *Sapindaceae*

Deciduous, medium to tall tree having exfoliating bark on trunk and branches. Good for planting in hills.



***Ailanthes excelsa* (Tree of heaven)**

Family: *Simaroubaceae*

Deciduous, medium sized foliage tree. Good for planting plains and low hill areas.



***Anthocephalus indicus* (Kadamb)**

Family: *Naucleaceae*

Deciduous, coarse texture foliage tree and globosely yellow flowers during July to September.



***Azadirachta indica* (Neem)**

Family: *Meliaceae*

Evergreen, medium sized foliage tree with white flowers during April to June.



***Araucaria columnaris* (Monkey puzzle)**

Family: *Araucariaceae*

Tall straight growing tree with beautiful formal branching pattern and ornamental foliage.





***Bauhinia purpurea* (Mountain Ebony)**

Family: *Caesalpinaceae*

Semi-deciduous quick growing medium height tree having bi-lobed leaves and lilac to red purple flowers with fragrance during autumn to winter season.



***Bauhinia variegata* (Kachnar)**

Family: *Caesalpinaceae*

Deciduous quick growing medium height tree having bi-lobed leaves and white with red purple markings flowers during spring to summer season.



***Brownea coccinea* (Rose of Venenzula)**

Family: *Caesalpinaceae*

Evergreen, medium height tree with large compound leaves, drooping scarlet-red flowers in clusters during March to April.



***Callistemon lanceolatus* (Bottle brush)**

Family: *Myrtaceae*

Evergreen, slow growing dwarf-medium height tree, with drooping branching pattern and thick dark green leaves and bottle- brush shaped bright red flowers throughout the year.



***Cassia fistula* (Indian Laburnum/ Amaltas)**

Family: *Caesalpinaceae*

Deciduous slow growing medium height tree suited for dry localities with dull green large compound leaves, bright yellow flowers in drooping racemes during April- June and brown- black pods throughout year.



***Cassia fjavanica* (Java Cassia)**

Family: *Caesalpinaceae*

Deciduous quick growing medium- tall height with large compound leaves having small leaflets and pink flowers borne in clusters in leaf axis during May-June.



***Chorisia speciosa* (Mexican silk cotton tree)**

Family: *Bombacaceae*

Deciduous, medium-large tree with almost green prickly stem and branches, pink with yellow centre flowers during October- November.



***Colvillea racemosa* (Colville's glory)**

Family: *Caesalpinaceae*

Deciduous, medium- tall tree, dark green, compound and fine texture leaves with orange-red flowers in drooping racemes during July- October.



***Cupressus sempervirens* (Italian Saru)**

Family: *Cupressaceae*

Evergreen, dwarf- medium height tree with columnar shape canopy and fine texture dark green foliage.



***Delonix regia* (Red Gulmohar)**

Family: *Caesalpinaceae*

Deciduous quick growing tree, with umbrella shaped canopy, fine texture compound dark green leaves and scarlet-orange flowers borne in panicles during April-June.





***Erythrina indica* var. *variegata* (Coral tree)**

Family: *Papilionaceae*

Deciduous medium sized tree with large yellow variegated leaves and crimson-red flowers during April to June.



***Ficus infectorea* (Pilkhan)**

Family: *Moraceae*

Semi-deciduous, medium to large tree with spreading canopy.



***Grevillea robusta* (Silver oak)**

Family: *Proteaceae*

Evergreen medium to tall tree with almost conical canopy, fine texture dark green foliage (above), grayish (beneath) and yellow orange fragrant flowers during April to June.



***Jacaranda mimosifolia* (Blue gulmohar)**

Family: *Bignoniaceae*

Deciduous, medium sized tree with spreading canopy, fine texture light green foliage and mauve-blue flowers during March-May.



***Kigelia pinnata* (Sausage tree)**

Family: *Bignoniaceae*

Semi-deciduous medium sized tree with wide oval canopy, coarse texture pinnate leaves and maroon-red flowers during April-July and October-November and drooping cucumber like brown fruits throughout the year.



***Koelreuteria paniculata* (Golden rain tree)**

Family: *Sapindaceae*

Deciduous, dwarf tree with umbrella shaped canopy and compound leaves. Yellow -orange flowers appear during august to October and orange-red tri-fid fruits during October-December.



***Lagerstroemia speciosa* (Pride of India)**

Family: *Lythraceae*

Deciduous, medium sized tree with informal to umbrella canopy, pink-red to purple-pink flowers appear during April to August.



***Magnolia grandiflora* (Him Champa)**

Family: *Magnoliaceae*

Evergreen, medium sized tree with almost cylindrical canopy with glossy green leaves on upper side and bronze beneath and white large fragrant flowers appear during March to May.



***Peltophorum ferrugineum* (Yellow gulmohar)**

Family: *Caesalpiniaceae*

Evergreen, medium sized quick growing tree with umbrella shaped. Bright yellow flowers are borne in terminal racemes during April-June and again during September-November.



***Platanus orientalis* (Chenar)**

Family: *Platanaceae*

Deciduous, large sized tree with informal canopy and leaves turning yellow during autumn looks very ornamental.





***Plumeria acuminata* (Temple tree)**

Family: *Aprocynaceae*

Deciduous, dwarf tree with umbrella to globular canopy and coarse texture light green leaves and cream with yellow centre flowers appearing throughout the year.



***Polyalthia longifolia var. pendula* (Ashok tree)**

Family: *Annonaceae*

Evergreen medium sized columnar shaped canopy with glossy green foliage borne in drooping branches.



***Pterospermum acerifolium* (Kanak Champa)**

Family: *Sterculiaceae*

Evergreen, medium sized tree with informal canopy and coarse texture large leaves. Flowers are white with mild fragrance.



***Rhododendron arboreum* (Rhododendron)**

Family: *Ericaceae*

Evergreen, dwarf tree with glossy green foliage makes contrast with red flowers during March-May in hilly areas.



***Roystonea regia* (Royal palm)**

Family: *Palmaceae*

Evergreen, tall tree with bottle shaped trunk and pinnate shaped large leaves.



***Spathodea campanulata* (Tulip tree)**

Family: *Bignoniaceae*

Evergreen, medium-tall tree with bright green foliage makes contrast with crimson-red flowers throughout the year.





### ***Thespesia populnea* (Portia tree)**

Family: *Malvaceae*

Evergreen, medium-tall tree with light green heart shaped leaves and yellow flowers with red marks throughout the year.



**Exercise:** Visit the commercial Floriculture farms/ nurseries/ Florist shops and identify different ornamental trees being grown or sold based upon their distinguishable morphological characters.

#### **Observations:**

S. No.	Name of the ornamental tree	Plant characteristics	Flowers and inflorescence	Remarks
1				
2				
3				

#### **Precautions:**

- Do not damage the ornamental trees during identification.
- Carefully note the most distinguishable characters of ornamental trees identified.

## **EXERCISE 5.2: IDENTIFICATION OF MAJOR ORNAMENTAL SHRUBS FOR AVENUES**

### **Objective :**

- To identify various ornamental shrubs for avenues based on primary morphological characters.

**Delivery schedule :** 1 period

#### **Student's expectations/ Learning objectives:**

- To get acquainted with different ornamental shrubs for avenues grown in India

**Pre-learning required : Knowledge about ornamental shrubs for avenues.**

**Handouts/material required/equipment's & tools:** Ornamental shrubs for avenues, hand lens and standard encyclopedia and books on Floriculture

### **Introduction:**

A shrub is a woody or semi-woody perennial plant with little or no trunk and grows from 50cm to 4 meters. The major purpose of planting shrubs is given below:

- To enhance the beauty of surroundings
- To provide fragrance in the garden
- To act as boundary of property line
- To secure privacy for the family
- To divide different areas or features in the garden
- Softening harsh building lines
- To screen off unwanted sites/ features
- To reduce winds
- To control traffic while planted in avenues and gardens
- To provide background for growing annual flowers
- To reduce soil erosion
- To conserve moisture
- To discourage weed growth
- To provide natural habitat for wildlife especially birds

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#### **Description of ornamental shrub**

#### **Photograph**

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***Acacia auriculiformis* (Australian Acacia)**

**Family: *Mimosaceae***

Dwarf to medium sized, evergreen tree with light yellow fragrant flowers year round. Good for planting in hills.





***Acalypha hispida* (Acalypha)**

Family: *Euphorbiaceae*

Dwarf medium sized shrub with multi-colour foliage and drooping red catkins during March-June. Good for planting in tropical areas.



***Achania malvaviscus* (Chinese lantern)**

Family: *Malvaceae*

Medium sized semi-deciduous shrub with dark green foliage and orange-red flowers throughout the year.



***Allamanda cathartica* (Allamanda)**

Family: *Apocynaceae*

Climbing evergreen shrub with green glossy foliage and bright yellow flowers appearing throughout the year. Good for planting in tropical areas.



***Azalea species* (Azalea)**

Family: *Ericaceae*

Dwarf to medium sized, evergreen shrub with pink, red, white and purple flowers appearing during February-July. Good for planting in hills.



***Bougainvillea species* (Bougainvillea)**

Family: *Nyctaginaceae*

Climbing type thorny evergreen shrub valued for ornamental bracts with almost every colour throughout the year. Good for planting in tropical to sub-tropical areas.



***Buddleja linleyana* (Buddleia)**

Family: *Buddlejaceae*

Evergreen, grayish- green foliage and mauve-blue fragrant flowers during March-October. Good for planting in hills.



***Caesalpinia pulcherrima* (Peacock flower)**

Family: *Caesalpinaceae*

Deciduous, medium-large shrub with red-yellow flowers throughout the year and good for planting in sub-tropical areas.



***Camellia japonica* (Camellia)**

Family: *Theaceae*

Evergreen, medium sized shrub with shining dark green foliage with pink, red and white flowers during February to May and is good for planting in acidic soils in hills.



***Cestrum norcturnum* (Rat kee rani)**

Family: *Solanaceae*

Evergreen, large shrub with greenish-yellow fragrant flowers throughout the year and good for planting in subtropical and sub-temperate areas.



***Codiaeum variegatum* (Croton)**

Family: *Euphorbiaceae*

Dwarf, evergreen shrub with multi-colour foliage and good for planting in tropical areas.





***Crossandra infundibuliformis* (Crossandra)**

Family: *Acanthaceae*

Dwarf, evergreen shrub with orange-yellow flowers throughout the year and good for planting in sub-humid tropical areas.



***Dombeya spectabilis* (Dombeya)**

Family: *Sterculiaceae*

Large deciduous shrub with coarse texture foliage and white fragrant flowers during March-November and good for planting in tropical to temperate areas.



***Euphorbia pulcherrima* (Poinsettia)**

Family: *Euphorbiaceae*

Medium-large deciduous shrub grown for coloured red, orange, cream or yellow bracts mainly during January to March. Good for growing sub-temperate to tropical areas.



***Forsythia viridissima* (Forsythia)**

Family: *Oleaceae*

Dwarf deciduous shrub grown for bright yellow flowers borne on leafless branches during February-April and good for growing in hills.



***Gardenia jasminoides* (Cape jasmine)**

Family: *Rubiaceae*

Evergreen, medium sized shrub with glossy light green leaves and white highly fragrant flowers during March-July. Good for growing temperate to sub-tropical areas.



***Hibiscus rosa-sinensis* (Shoe flower/ China rose)**

Family: *Malvaceae*

Evergreen, large shrub with glossy green leaves and red, cream, saffron, yellow or white flowers almost throughout the year and it is good for planting in subtropical to sub-temperate areas.



***Hiptage benghalensis* (Madhavi lota)**

Family: *Malpighiaceae*

Large deciduous rambling shrub with orange-light red emerging foliage and turning reddish in autumn and creamy white fragrant flowers are borne during February- June. It is good for planting in subtropical to sub-temperate areas.



***Holmskioldia sanguinea* (Cup and saucer)**

Family: *Verbenaceae*

Large, deciduous rambling shrub, grown for red or yellow cup and saucer shaped flowers appearing during October to February. Good for growing temperate to sub-tropical areas.



***Hydrangea macrophylla* (Hydrangea)**

Family: *Hydrangeaceae*

Dwarf deciduous shrub grown for coarse texture green leaves and large blue, pink, red or white flowers borne in globose shaped corymbs during April to September and good for growing in hills.



***Ixora coccinea* (Rukmani)**

Family: *Euphorbiaceae*

Evergreen medium sized shrub with dark green foliage and orange-red flowers appearing during April to September. It is good for planting in subtropical to tropical areas.





***Jasminum primulinum* (Primrose jasmine)**

Family: *Oleaceae*

Large deciduous rambling shrub with green drooping branches bearing yellow star shaped semi-double flowers before appearing leaves during March-May. It is good for planting in subtropical to sub-temperate areas.



***Mussaenda frondosa* (Mussaenda)**

Family: *Rubiaceae*

Evergreen medium sized shrub with light green foliage and white, cream, orange or red bracts appearing during March-September. It is good for planting in subtropical to tropical areas.



***Nerium indicum* (Red kaner)**

Family: *Apocynaceae*

Evergreen, large shrub with dark green shining thick leaves and white, pink or red flowers borne in bunches almost throughout the year. It is good for planting in subtropical to sub-temperate areas.



***Russelia juncea* (Coral bush)**

Family: *Scrophulariaceae*

Evergreen medium sized shrub with drooping green branches bearing red tubular flowers almost throughout the year. It is good for planting in subtropical to sub-temperate areas under partially shady areas.



### ***Spiraea japonica* (Spiraea)**

Family: *Rosaceae*

Dwarf deciduous shrub with drooping brown braches bearing white and fragrant flowers on leafless branches during February to April. It is good for planting in hills.



### ***Tabernaemontana divaricata* (Double chandani)**

Family: *Apocynaceae*

Evergreen, medium sized shrub with light green leaves and double white flowers almost throughout the year. Good for growing sub-temperate to sub-tropical areas.



### ***Tecoma stans* (Yellow bells)**

Family: *Bignoniaceae*

Medium sized deciduous shrub valued for yellow, bell shaped flowers appearing throughout the year. Good for growing sub-temperate to sub-tropical areas.



**Exercise :** Visit the commercial Floriculture farms/ nurseries/ Florist shops and identify different ornamental shrubs being grown or sold based upon their distinguishable morphological characters.

#### **Observations:**

S. No.	Name of the ornamental shrub	Plant characteristics	Flowers and inflorescence	Remarks
1				
2				
3				

### Precautions:

- Do not damage the ornamental shrubs during identification.
- Carefully note the most distinguishable characters of ornamental shrubs identified.

## **EXERCISE 5.3:** **IDENTIFICATION OF MAJOR LAWN** **GRASSES FOR GARDENS AND PARKS**

### **Objective :**

- To identify major lawn grasses for gardens and parks based on primary morphological characters.

**Delivery schedule :** 1 period

### **Student's expectations/ Learning objectives:**

- To get acquainted with different lawn grasses grown in India

**Pre-learning required :** Knowledge about lawn grasses.

**Handouts/material required/equipment's & tools:** Lawn grasses, hand lens and standard encyclopedia and books on Floriculture

### **Introduction:**

Lawn is a ground cover of perennial grass, which persists in close mowing and requires proper management practices. The important characteristics of grasses for making lawn are given below:

- Look fresh and green throughout the year
- Not patchy
- Cold or drought resistant
- Free from attack of diseases and insects
- Quick growing
- Soft to touch
- Not giving foul or bad odour



## Description of lawn grass

## Photograph

### *Agrostis canina* (Velvet bent grass)

It is dark green and fine textured grass. It is highly suitable for shady and cool areas in hills. It has moderate wear tolerance and requires medium fertilizers.



### *Agrostis palustris* (Creeping grass)

It is green and medium-fine textured grass. It is moderately tolerant to shade, drought and heat, but highly tolerant to cold and salinity. It has poor wear tolerance and requires high fertilizers.



### *Cynodon dactylon* (Bermuda grass)

It is green and fine textured grass. It is moderately tolerant to drought and cold. It has high wear tolerance and requires high fertilizers. Selection 1, Hariyali and Culcuttia are its popular varieties.



### *Dactylis glomerata*

It is bluish green and medium textured grass. It is suitable for growing in shady areas in mild climate areas. It requires moderate fertilizers and has poor wear tolerance. It requires moderate fertilizers.



### *Festuca arundinacea* (Tall fescue)

It is shining green and medium-coarse textured grass. It is tolerant to drought and cold. It has good wear tolerance. It requires medium fertilizers.



### *Lolium perene* (Perennial rye grass)

It is shining green and medium textured grass. It is low tolerant to drought, shade and cold. It has high wear tolerance and requires medium fertilizers.



### ***Paspalum notatum* (Bahia grass)**

It is green and coarse textured grass. It is moderately tolerant to drought, shade, heat, cold and wear- tolerance. It requires low fertilizers.



### ***Phleum bertolonii***

It is shining green and fine-medium textured grass. It is highly suitable for shady and cool areas in hills. It has moderate wear tolerance and requires medium fertilizers.



### ***Poa pratensis* (Kentucky grass)**

It is shining green and fine-medium textured grass. It is moderately tolerant to drought, cold and wear tolerance and requires medium fertilizers.



### ***Stenotaphrum secundatum* (St. Augustine)**

It is dark green and coarse textured grass. It is tolerant to shade, drought and wear, but less tolerant to cold. It requires high fertilizers.



### ***Zoysia japonica* (Japanese/ Korean grass)**

It is green and fine textured grass. It is moderately tolerant to drought, heat and cold. It has high wear tolerance and requires medium fertilizers.



**Exercise:** Visit the commercial Floriculture farms/ nurseries/ Florist shops and identify different lawn grasses being grown or sold based upon their distinguishable morphological characters.

### **Observations:**

S. No.	Name of the Lawn grasses	Plant characteristics	Remarks
1			
2			
3			

### Precautions:

- Do not damage the lawn grasses during identification.
- Carefully note the most distinguishable characters of lawn grasses identified.

## **EXERCISE 5.4:**

### **IDENTIFICATION OF HEDGES AND EDGES PLANTS FOR GRADENS AND PARKS**

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#### **Objective :**

- To identify various hedges and edges plants for gardens and parks based on primary morphological characters.

**Delivery schedule :** 1 period

#### **Student's expectations/ Learning objectives:**

- To get acquaint with different hedges and edges plants grown in India

**Pre-learning required :** Knowledge about hedges and edges.

**Handouts/material required/equipment's & tools:** Hedges and edges plants, hand lens and standard encyclopedia and books on Floriculture

### **Introduction:**

#### **Hedges:**

Hedge is a dense, permanent, continuous row or line of living woody or semi-woody perennial- plants grown at regular interval and frequently trimmed to answer the purpose of a fence, wall, screen or wind- break in the garden.

#### **Purposes of hedges:**

- Serve as a compound wall, living fence and physical barrier
- Protection against theft, animals and trespassing
- Give shelter from strong gales and winds
- Ensure privacy in the garden
- Dividing different portions in the garden like drive way, parking, etc. from the garden
- Demarcate garden from the public road and buildings



- Hiding unwanted sites/ spots like lavatory, compost pit, etc.
- Protection from noise, air and dust pollution
- Form a background for a floral display of ornamentals
- As a part of garden on its own

### Edges:

Evergreen, low growing plants having same characteristics like hedge plants are grown to form an edge. Edge normally grows from few centimeters to 50cm. To distinguish it from hedge, it is low growing and does not block the view in the gardens and parks.

### Purposes of edges:

- To direct traffic in the garden by growing it along the paths, walkways, beds, borders, etc.
- To divide different areas or features in the garden like rosary, rockery, lawn, children playing area, etc.
- To mark the outline of tree basins

## HEDGES:

### Description of hedges

### Photograph

#### **Azalea species:**

Evergreen, dusty green to dark green shining foliage and white, pink, purple, red and yellow flowers in different varieties. Good for ornamental hedge in well drained light and acidic soils in mid and high hills.



#### **Bougainvillea species**

Family: *Nyctaginaceae*

It is an evergreen, different varieties valued for beautiful colour bracts and foliage. Good to be grown as tall protective and ornamental hedge in low and mid hill areas which don't experience prolonged frost during winter.



### ***Casuarina equisetifolia* (Jod tod)**

Family: *Casuarinaceae*

Evergreen angiosperm tree with needle shaped dark green foliage. Good for tall ornamental hedge in low and mid hills.



### ***Clerodendrum inerme***

Family: *Verbenaceae*

Evergreen, dark green foliage and pinkish-white mildly fragrant flowers. Good for growing tall ornamental hedge even in drought prone, but frost free areas in low and mid hills.



### ***Cuphia melvillea* (Cigar plant)**

Family: *Lythraceae*

Evergreen, multi-stemmed vertical, reddish bronze to green foliage and yellow, orange- red flowers. Good for dwarf ornamental hedge in moist areas in mid hills.



### ***Duranta repens variegata* (Duranta/ Pigeon berry)**

Family: *Verbenaceae*

It is an evergreen, tall, thorny stem, drooping branches with light green yellow variegated foliage, blue flowers and yellow-orange berries. It is good for growing tall protective hedge subtropical to sub temperate areas.



### ***Duranta repens* (Duranta/ Pigeon berry)**

Family: *Verbenaceae*

It is an evergreen, tall, thorny stem, drooping branches with light green foliage, blue flowers and yellow-orange berries. It is good for growing tall protective hedge subtropical to sub temperate areas.





***Eumonymus japonicus***

Family: *Celastraceae*

Evergreen, multi-stemmed vertical and shining dark green foliage. Good for growing in hills.



***Gardenia jasminoides: (Cape jasmine)***

Family: *Rubiaceae*

Evergreen, shining light green foliage and white highly fragrant flowers. Good for ornamental hedge in mid hills.



***Hamelia patens: (Scarlet bush)***

Family: *Rubiaceae*

Evergreen, bronze-green foliage and orange-red, mildly fragrant flowers. Good for ornamental hedge in tropical areas to low hills.



***Hibiscus rosasinensis: (China rose)***

Family: *Malvaceae*

Evergreen, dark green and variegated foliage and varieties with red, maroon yellow, cream and saffron flower colours in single, semi-double or double flower forms. Good for growing tall ornamental hedge in frost free areas in low and mid hills.



***Hydrangea macrophylla***

Family: *Hydrangeaceae*

Deciduous, coarse texture foliage and mauve-blue, pink and white flower colour varieties. Good for ornamental hedge in mid and high hills.





### ***Lantana camara***

Family: *Verbenaceae*

Semi-deciduous, branches prickly, wrinkled hairy green foliage and multi-coloured flowers capitates. Good for ornamental and protective hedge in low to high hills.



### ***Ligustrum ovalifolium var. variegatum***

Family: *Oleaceae*

Evergreen, dark green and variegated foliage. Good for ornamental hedge in mid and high hills.



### ***Murraya exotica (Kamini)***

Family: *Rutaceae*

Evergreen, shining dark green foliage and white fragrant flowers. Good for tall ornamental hedge in low and mid hills.



### ***Opuntia species***

Family: *Cactaceae*

Different species of Opuntia with flat spiny stem are good for making hedge in low and mid hills even in drought prone and rocky soils.



### ***Spiraea japonica***

Family: *Rosaceae*

Deciduous, bronze-red branches, green foliage and white fragrant flowers. Good for ornamental hedge in mid and high hills.



### ***Thuja orientalis var. compacta***

Family: *Cupressaceae*

Evergreen, conifer tree with fine texture dark green foliage. Good for tall ornamental hedge and topiary in mid and high hills.



## EDGES:

### Description of edges

### Photograph

***Alternanthera species:*** Herbaceous to semi-woody stem, multi-colour, bronze, red, pink and purple foliage. Very good for compact low edging of 20-30cm height in frost free areas in low and mid hills.



***Cuphea hyssopifolia:*** Semi-deciduous, low growing, fine texture green foliage and pink and white flowers. Good for growing as edge in mid and high hills.



***Duranta repens var. Golden:*** Evergreen with golden yellow foliage. Good for growing edge in frost free areas in low and mid hills.



***Hypoestes species:*** Herbaceous perennial with green foliage mottled with pink, red and white spots. Good for edging in mid hills.



***Iresine species:*** Herbaceous perennial, blood red and green with red foliage. Good for edge in frost free areas in low and mid hills.



***Myrsine africana:*** Evergreen, shining dark green foliage and red flowers. Good for planting in partially shady areas in mid and high hills.



***Ophiopogon intermedius:*** Evergreen, dark green grassy foliage and white fragrant flowers. Good for growing in partially shady moist areas in mid and high hills.



***Serrisa foetida:*** Evergreen, dark green with creamy-white margin foliage and white flowers. Good for edging in low and mid hills.



**Exercise:** Visit the commercial Floriculture farms/ nurseries/ Florist shops and identify different hedges and edges plants being grown or sold based upon their distinguishable morphological characters.

**Observations:**

S. No.	Name of the hedge/ edge plant	Hedge/ edge	Plant characteristics	Flowers and inflorescence	Remarks
1					
2					
3					

**Precautions:**

- Do not damage the hedges/ edges plants during identification.
- Carefully note the most distinguishable characters of hedges/ edges identified.