GROUND COVERS

- The term ground cover applies to low growing, individual plants set very close together so that the soil can’t be seen.
- They are mostly less than .5 m in height and evergreen in nature. Although they are difficult to establish but very effective in the landscape.
- Once established, they are very useful in reducing the erosion and have a pleasing appearance.
- If ground covers are to be viewed close up, they should have a fine texture and dense growth, mostly the grasses are used for this purpose. They should be used in areas that will not receive traffic.
- Some other ground covers are planted for the massive flowering effect in the landscape.

Botanical Name	Common Name	Family Name	Propagation	Comments
Alternanthera bettzickiana	Alternanthera	Amaranthaceae	Cuttings	
Asparagus densiflorus Var Spregeri	Asparagus	Liliaceac	Suckers	
Chlorophytum comosum	Spider Plant	Liliaceae	Division and Suckers	
Cyperus alternifolius	Umbrella Plant	Cyperaceae	Seed & Suckers	

Alternanthra bettzickiana

Alternanthera

Asparagus densiflorus
Asparagus


Chlorophytum comosum
Spider Plant

Cyperus alternifolius

Umbrella Plant

Dichondra micrantha	Dicot	Convomulaceae	Seed & suckers under shade palnt	Green leafy
Mesembryanthemum crystallinum	Ice plant	Verbenaceae	Seed and leaf cuttings	Succulent with soft fleshy stem and flower
Ocimum basilicum	Niaz boo	Labiatae	Seed	Hardy herb
Portulaca grandiflora	Rose moss	Portulaceae	Seed and cuttings	Low spreading flowering plant

Dichondra micrantha

Dicot

Mesembryanthemum crystallinum

Ice plant

Ocimum basilicum

Niaz boo

Portulaca grandiflora

Rose moss

Russelia juncea	Russclia	Scrophulariaceae	Through division and suckers	Low spreading with small red
Tradescantia fluminensis	Wandering Jew	Commelinaceae	Through cuttings	Salt tolerant and drought resistant
Vinca Minor	Vinca	Apocynaceae	Seed	Trailing evergreen, flower bluish, purple, pink

Russelia juncea

Russclia

Tradescantia fluminensis

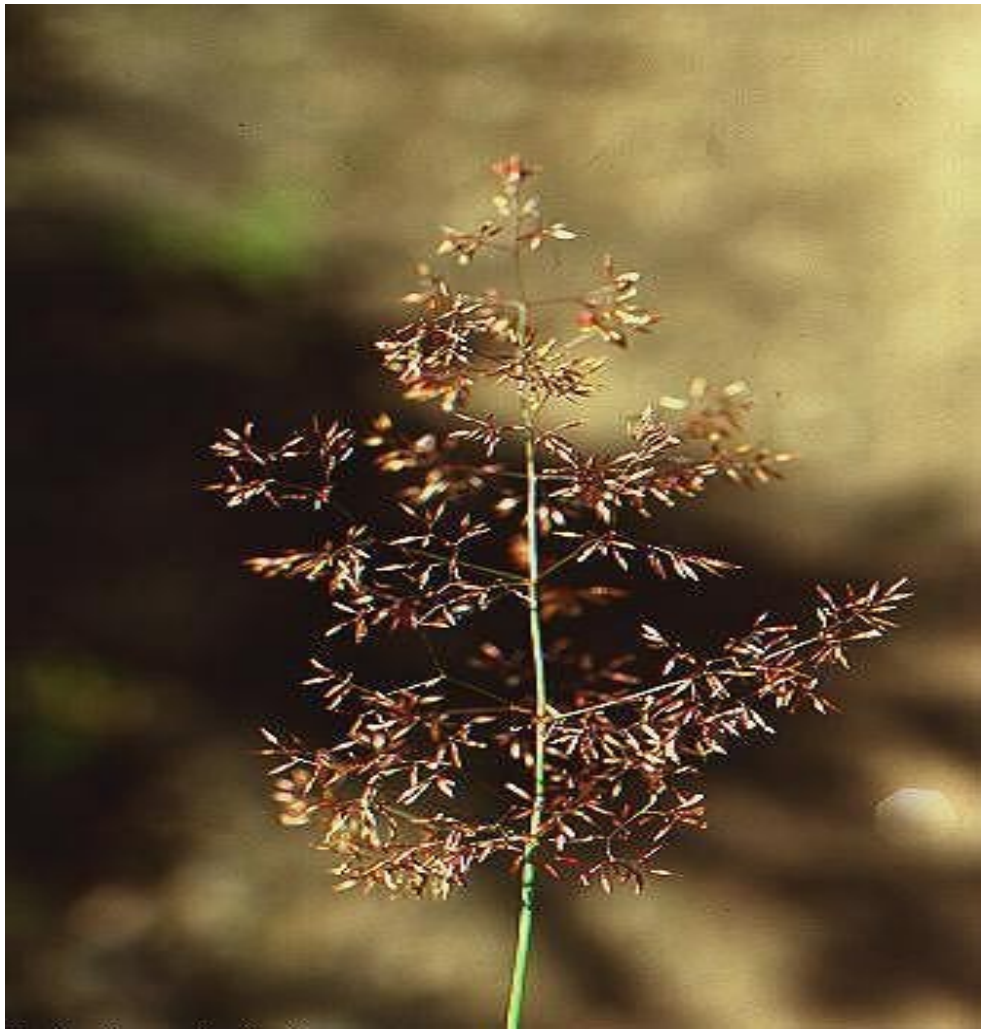
Wandering Jew

Verbena minor

Vinca

GRASSES

Botanical Name	Common name	Family name	Planting by	Remarks
Agrostis tenuis	Colonial bent grass	Graminea e	seeds	Ability to withstand and make a fine close turf. Cool season. low maintenance.
Axonopus compressus	Carpet grass	Graminea e	Plugging of stolons	Make a dense close turf. Warm season.



Agrostis tenuis

Axonopus compressus

Buchloe Dactyloides	Buffalo grass	Gramineae	Plugging of stolons	Warm season, low maintenance. Dry and somewhat unattractive appearance during fall and spring.
Cynodon dactylon	Bermuda grass	Gramineae	Plugging of stolons & sodding	For tropical & subtropical areas. Make dense turf diring heat of summer.

Buchloe Dactyloides

Cynodon dactylon

Eremochloa ophioroides	Centipede grass	Gramineae	Plugging of stolons	Dense mat of yellowish to bluish green foliage. Adopted to poor soil, low maintenance, warm season.
Festuca rubra fallax	Chewings fescue	Gramineae	Planting by plugging	Cool season, less watering. Poor germination

Eremochloa ophioroides

Festuca rubra fallax

Lolium multiflorum	Italian rye grass	Gramineae	Planting by seed	Used as temporary planting, cool season. Establishes turf quickly.
Poa pratensis	Kentuckey blue grass	Gramineae	Planting by seed	Easy to grow, disease resistant, cool season and mostly growing in hilly areas.

Lolium multiflorum

Poa pratensis

Poa trivialis	Rough stalked grass	Gramineae	Planting by seed	Excellent shade tolerance, cool season. Short creeping stems spread slowly.
Poa compressa	Canada blue grass	Gramineae	Planting by seed	Easy to grow, disease resistant, cool season and mostly growing in hilly areas.
Stenotaphum secundatum	St. Augustive grass	Gramineae	Planting by plugging of stolons	Salt tolerant & drought resistant, warm season. Grow in the shade and well in heavy soil.

Poa trivialis

Poa compressa

Stenotaphum secundatum

Establishment of Lawn Grasses

Lawn is the foreground of the house or any building, used for every landscape and setting of architectural and garden features. Lawns benefits home landscapes in many environmental ways as well.

Grading and Drainage of Ground

A fall of 30 cm over a distance of 3000 cm is required for flat land to drain properly prevent water from draining toward a building foundation by establishing the grade to a 1 to 2 percent slope away from the building.

Preparation of Land

- Clearance of debris
- Cleaning of unused building material
- Cleaning of weeds
- Hoeing
- Leveling
- Using of herbicides
- Adding soil amendment/ organic matter

Preparation of Soil

- A Soil which has equal amounts of sand, silt and clay in it is excellent for planting grasses.
- All debris, rubbish and stones should be removed from the site of plantation.
- All necessary soil additives like well-rotted farm manure, silt and fertilizer should be added into the soil at the same time after properly ploughing and rolling the soil. This can be done effectively with a garden tiller.
- Once the soil has been properly conditioned, it is ready to plant.

Planting of grasses

Lawns are planted by three different methods:

- Seeding
- Sodding
- Plugging

Seeding

- Seeding is a most popular and economic method of starting a new lawn. Buy seed from a reliable source. The kind of seed for the establishing of lawn is important. Make sure that the variety and the grass type you choose are adapted to the area and best suit your needs.
- Seeds are sown easily by hand in small areas or residential lawn with covering the entire lawn area in each direction.
- Playing ground and large parks are sown by wheel spreader. Lightly rake the entire area so that the seed can be mixed in the soil.
- Seeding at a depth of 0.5cm is usually sufficient.
- To establish the depth and place the seeds firmly into the soil, irrigate the sowing area with sprinkler and then roll with lawn roller. Germination will take place within ten days and entire ground will be covered within few weeks.

Plugging

- Plugging is the common method of planting grasses in tropical and subtropical areas.
- Plugs are pieces of torn up sod, planting them into the soil and space them from 10-20cm apart. It depends on the coverage you would like. Close spacing result in more rapid coverage.
- After plugging, it is necessary to roll the lawn and irrigate immediately. When the soil is near to dry, rolling with roller helps to firm the soil around the plugs and aid in leveling. The ground will cover within few weeks.

Sodding

Sod is established turf which is moved from one location to another. Cut in to strips and lifted intact, along with a thin layer of soil held together by runners, roots, or netting. Installing a sod lawn is much like laying a carpet. Following steps should be considered during Sodding.

- Select a high quality healthy grass that is well adapted to the area and site.
- Prepare the soil and check the level. For the sodding, the final grade should be 2-3cm lower than the actual lawn level. This allows for the thickness of the sod to fit.
- Moisten the soil before laying sod.
- Lay the sod in one area, roll and water, then move to another area.
- Water every day for up to two weeks, so that roots knitted with the underlying soil.
- Lawn will be ready within two weeks to use for the function and sitting.

MAINTENANCE OF LAWNS

- The lawn maintenance depends on the amount of time you have to spend on lawn care. When you water, fertilize, mow or take care of weeds probably depends on when you have the time. These tasks do not have to reduce the pleasure derived from caring for a lawn.

Watering

Water is one of the basic requirement for the growth of grass. Without water a lawn cannot survive. The water requirements of lawn depend on the following factors.

- The type of soil used for growing grass
- Seasonal temperatures
- Wind velocity
- Humidity of that particular area
- The frequency of rain
- The type or species of grasses
- Mowing frequency

Fertilizing

Lawn grasses live in an unnatural environments because of the regular cutting throughout the year. The grass plantation is very crowded and compete with each other for water and nutrients. The following nutrients are the most important for the lawn grasses:

- Nitrogen: very important for rapid shoot growth.
- Phosphorus: less important but still essential.
- Potassium: second important for the strengthen the lawn grasses.
- Calcium: Less important but essential
- Magnesium: Less important but essential
- lawn Food: is the compound fertilizer with NPK ratio applying @ 500 gm per 100 sq m.

There are three basic methods of application of fertilizers.

- Spraying
- Broad casting
- Drop spreading

Mowing

Cutting or trimming of grasses is called mowing. A lawn that is mowed to the right height at the right time resists weeds. Insects, and diseases and appear lush green and healthy with even carpet.

Mowing depends on the following factors.

- Additional application of nutrient affects the growth rate; lawns that are fertilized often require frequent mowing.
- Seasonal changes do affect on the growth of the grasses. During spring and fall growth is fast and vigorous. therefore, needs quick mowing.
- warm grasses also grow very fast and healthy and frequent mowing is required (weekly) but winter is a dormant season for growth, therefore, less moving is required (four weeks interval or more).
- Different types of grass still grow at different rates. Mowing schedule should be according to the growth rate of the grasses mowing heights.

Moving of Lawn Grasses

- Moving of grasses for the maintenance of lawns is more important in landscape maintenance. It should be done regularly. Following factors should be considered
  - Climate
  - Season
  - Grass species
  - Fertilizer regime
  - Watering frequency
  - Use of lawn

A general chart of mowing of grasses

Season	Mowing Period	Height
Spring	After 10 days	4 cm
Summer	After 8 days	4 cm
Rainy season	After 8 days	2.5 cm
Autumn	After 15 days	3 cm
Winter	After 30-50 days	4 cm

Kinds of Movers

- Hand movers (two side wheel, 40 cm long blades)
- Cylinder driven mowers
- Fully motor driven mowers
- Heavy duty movers
- Electric powered movers

Care during mowing

- Do not cut wet grass, it causes uneven mowing
- Pick up stems and sticks before mowing
- Alternate mowing patterns. Mowing the same direction every time tends to compact the soil and causes wear patterns
- Check the blades height by measuring the grass after cutting
- Sharp turns with a mower can cause the uneven cutting. Make wide turns with slow speed
- If the ground is uneven in some areas because the soil has settled, be careful not to scalp the high spots.

Weed control in lawns

- A weed may be defined as a plant which is growing out of its place or where it is not wanted and has no apparent economic value. In lawns weeds are controlled by herbicides and manual. Herbicides are available from the garden shops with their correct uses and precautions.