

Lawn Making

- Lawn is a ground cover of perennial grass, which persists in close mowing and requires proper management practices

History of Lawn

- Egypt, China and Persia have features of prototypes of lawn since 13th century.
- Europe further helped in improvement of lawn.
- Carpet grass was mixed with flowering plants.
- Chamomile grass (*Anthemis* sp.) used in lawn during 11th to 13th century in U.K.
- Turf management is in use in France and England since 17th century.
- J.B. Olcoth designed first experiment in lawn grasses at Monchester in USA in the 19th century.
- *Festuca* and *Agrostis* species were used to make turf (lawn) during 1880-1890 in U.K.

Purposes of a lawn

- It is an important element in the garden.
- It leads to unity in garden design.
- It is a natural green carpet and is the carpeted floor of outdoor room.
- It is the heart of the garden and the centre for social life.
- It is the centre piece around which all other garden elements are placed in sub-ordinate order like the royal court, where king occupies the central position and is surrounded by his courtiers.
- It gives restful appearance to the eyes through its green outlook all the time.
- A lush green lawn is refreshing especially during summer.
- Lawn is the best foreground to enjoy the charm and beauty of the ornamental plants and features.
- Prevent soil erosion.

Characteristics of a lawn grass

- 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 fowl or bad odour.

Cultivars of Bermuda grass (*Cynodon dactylon*)

- Calcuttia
- Hariyali
- Seleccion 1
- Selection 8
- Bargusto
- Palna
- Panam
- Panama

- *Agrostis palustris* L., *Eragrostis curvula*
- (Schrad.) Nees, *Dichondra repens* Forst, *Paspalum*
- *notatum* Flugge, Argentine bahia, *Poa pratensis* L.,
- *Cynodon dactylon* L. var. *Bargusto*, *C. dactylon* var.
- *Palna*, *C. Dactylon* var. *Panam*, *C. dactylon* var. *Panama*,
- *C. dactylon* var. *Selection 1* and *Lolium perenne*

Cynodon dactylon- Selection 1



Zoysia japonica (Korean grass)



Festuca rubra



Festuca rubra



Festuca arundinacea



Festuca arundinacea



Agrostis vinealis



Agrostis capillaris



Agrostis capillaris



Dactylis glomerata



Dactyis glomerata



Lolium perenne



Lolium perenne



Phleum bertolonii



Site for planting lawn

- South, south-east or south-west open and sunny place for most part of the day with adequate water availability

Method of preparing soil for growing lawn

- Dig soil up to 45 cm depth and expose to sun in May-June.
- Turn soil 2-3 times, remove stones, rocks and break big clods.
- Spread 10-15 cm thick layer of well rotten weed free farm yard manure and thoroughly mix in soil.
- Irrigate the field thoroughly and allow all weeds to germinate.
- Remove all the weeds along with roots manually or spray non-selective type of herbicide like paraquat or gramaxone @ 1.0-1.5 litre per hectare in about 800-1000 litre water.

Ideal soil/ growing medium

- Sandy-loam, well fertile, drained with good water holding capacity having pH of 5-6 and sufficient humus or organic matter.

Leveling and grading of ground

- Level the soil for uniformity of growth throughout the entire area
- Do perfect grading for proper drainage i.e. one foot in every 50 feet
- Leveling is checked visually, flooding the area, stretching the rope and avenae level.

Methods of lawn raising

- Seeding
- Dibbling
- Plastering
- Sprinkling
- Turfing
- Artificial lawn making

Seeding method

- This method is common to grow cool season lawn grasses.
- About 25 Kg seed is mixed in 200-250 Kg sand or saw dust and is broadcasted evenly in the prepared field.
- Do light rolling
- Sprinkle water regularly until seedling emerges.
- Less labour is required, but lawn is not even.

Dibbling method

- A small bunch of grass along with roots and little stem is taken.
- Planting is done at a spacing of 10 cm apart both row to row and plant to plant.
- Do regular watering until establishment.
- Dibbling is done in June to September.
- Lawn developed by this method is quick, uniform and with more labour and cost.

Plastering method

- Grass roots with little stem of 4-5 cm long pieces are mixed with compost and farm yard manure.
- Spread this over prepared field during rainy season.
- Avoid heavy balling.
- Do liberal watering with sprayer

Sprinkling method

- Grass roots along with little stem are chopped into small pieces.
- Spread this over prepared field during rainy season.
- Do small raking to mix grass in soil.
- Do light rolling.
- Do liberal watering with sprayer.
- Do mowing after 70-80 days.

Turfing method

- Small pieces of well prepared lawn or turf are cut into square or rectangular shape preferably planted on polythene sheet.
- Fix these in a thoroughly prepared field.
- Do heavy rolling.
- Lawn prepared is clean and weed free.
- Quickest method of lawn raising.

Artificial lawn

- Wheat or barley is sown by broadcasting in the well prepared field.
- When the seedlings are about 10 cm height, do light mowing.
- Greenery for short duration can be achieved by sprinkling pine needles in any area.

What is mowing

- It is the cutting of lawn grass for maintaining its attractiveness for maximum utility.



Tractor driven lawn mower







Who invented lawn mower?

- Lawn mower was invented by Edwin Budding in 1830 in England.

How lawn mowing is affected?

- Mowing stimulates bud development.
- Shoots become thicker and roots shorter.
- Generally lawn height is maintained at 5-7 cm, as very close mowing results in weak growth and mowing at more height may not serve the purpose.
- In one mowing not more than 1/3rd leaves are removed.
- Remove stones or pebbles before mowing, so as to avoid any damage to shears of lawn mower.
- In most of the grasses mowing is done at fortnightly interval.

Purpose of rolling

- Uniformity of growth is achieved by rolling, as it touches the nodes at ground, thereby keeping the area well leveled.
- Heavy rolling is done at the beginning of rainy season followed by light rolling in subsequent months depending upon grass species.

Manures and fertilizers

- Sun hemp is very good green manure before lawn planting.
- In a 30 m² lawn apply 3-5 q well rotten FYM, 10-20 kg lime and 10-20 kg SSP.
- Broadcast a mixture of 50-60g /m² or 1.5 Kg/ 30 m² (2 CAN: 1 SSP: 1 K₂ SO₄) twice in February-March and August-September.
- Spray of urea 0.3 per cent is also beneficial.

Irrigation

- Frequency and amount of irrigation depends upon soil, grass, weather and climate.
- It should be done before wilting or internal water stress.
- Increased watering interval result in deeper root development, thereby decreasing water requirement.
- Watering upto 5-15 cm depth at 8-10 days interval is ideal as frequent light watering is harmful.

Weeding

- Regular mowing checks weed growth by removing upper plant portion and starving of roots.
- For small area hand weeding is done.
- For controlling broad leaved weeds spray 2,4-D (0.05%).
- For narrow leaved weeds spray Atrazine @ 1.5 Kg a.i. per hectare in 1000 litre water.
- In lawn of Korean grass spray benefin or sylvex (0.1%).

Important diseases

- Damping off, root rot, grey leaf mould, leaf spot, powdery mildew and fairy ring are important diseases of lawn.
- Spray Bordeaux mixture (4 : 4 : 50 :: Copper sulphate : lime : water) at fortnightly interval.
- Spray Dithane M. 45 (0.1%) + Bavistin (0.1%) at fortnightly interval.

Salient hints for maintaining healthy lawn

- Avoid water standing in rainy season.
- Remove all dead or dry leaves falling during autumn season.
- Do raking in lawn twice once before rains and second after rains.
- Do thinning as and when required

Renovation of old or wild or weedy lawn

- Use notable herbicide to kill all weeds.
- Scrap lawn in rainy season.
- Do raking followed by leveling.
- Do testing of soil and add nutrients and lime as per requirement.
- Plant reliable grass.
- Apply proper manures and fertilizers.
- Broadcast sand, manures as per requirement.
- Maintain optimum moisture.