Lawn making : A scientific approach

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Lawn grass is nothing but the grassy area which has charming effect and breaks the monotony and brings the integrity of garden components. It acts as a cushiony layer for players who are engaged in sport activities. Additionally it checks the pollution and increase the monetary value of land. Turf grass of lawn grass is the hardiest perennial herb with vigorous and coarse textured nature are amenable for sports field whereas, fine textured, softer grasses are mainly used in ornamental gardens. An attractive, well maintained lawn grasses improves the appearance of residential gardens. Apart from its common usage it indirectly absorbs the dust, noise, control erosion and produce oxygen.

Selection of site :

- Open sunny places and preferably with little quantity of shade.
- Site should have ample quantity of water for irrigation
- Free from hazards like grazing and use of pathways.
- Site should not be under the tree canopy as the litter affects the quality of turf grass.
- Poorly drained soils should be avoided.

Types of lawn grasses

Sr. No.	Botanical name	Common name	Texture	Situation
1.	*Cynodon dactylon*	Hariyali (or) Doob grass	Medium	Suitable for open sunny location; drought tolerant
2.	*Stenotaphrum secundatum*	St. Augustine grass	Coarse	Suitable for shady situation with frequent irrigations
3.	*Zoysia japonica*	Japan grass	Coarse	Can grow well in poor sandy soil and suited for open sunny situation
4.	*Paspalum vaginatum*	Paspalum grass/ sea shore paspalum	Medium	Suitable for open sunny situation, highly drought tolerant

Seeding	Sod / Turfing	Dibbling / Sprigging
– 30-32 kg of seed is required for planting one hectare area – Seeds normally take 25 to 30 days for germination – Seeds are mixed with double the quality of fine textured soil preferably of sand and sown uniformly on a windless day – Food watering and hose watering is avoided till complete germination – Moving should be done after 50-60 days sowing **Disadvantages:** – Poor establishment when compared to other methods. – The availability of good quality seeds	– Selection of Turf piece – Should be free from sod worms – Free from nutritional deficiency – Free from weed population – Sod should be properly cut without any deformations – Height of the grass should be optimum – Free from other pest and diseases – Mowing should be done 20-25 days after planting or depending upon the complete establishment. – The uneven surfaces and gaps can be fitted with turf plugs with sand. – Turfing should not be practiced in winter seasons as it exhibits yellowing due to low temperature and low light intensity. **Advantages :** – Quick and instant establishment – Uniform turf surface – Best suited for exhibitions, sports grounds **Disadvantages :** – Costlier – Poor establishment during winter season	– Turf grass are separated along with their root portion is dibbled at 10-15 cm distances – Sprouting at 25-30 days – Complete coverage may take around 3-4 months after planting **Precautions:** – Mowing should be done 30-35 days planting. – Mowing should be done at one-third level without affecting the foliage growth. – Traffic movement should be avoided till the establishment. – Light irrigation followed by rolling improves the turf appearance. **Advantages :** – Cheapest method **Disadvantages :** – Slow establishment – Cost of planting is higher, when compared to other method of establishment

- Soil and water should be medium to good quality.

Land preparation :

- Site clearing : Remove the left out trees roots, stumps and concretes/glass pieces, if any. Similarly, the existing soil is unsuitable for cultivation can be removed for at least 40 to 50 cm.
- Back filling can be done with soil mixture consisting of Red soil : Sand : Compost in 2 : 1 : 1 ratio.
- Laying of irrigation lines (main and laterals) should be completed after back filling of soil mixture.
- Soil compaction and final soil leveling can be done with gentle slope for effective drainage.

Methods of lawn making:

- Seeding
- Dibbling / Sprigging
- Sodding / Turfing

Maintenance :

Mowing:

- Cutting of grass is technically known as "Mowing"
- Normal cutting height is 2.0 – 2.5 inches from the ground level
- Mowing should be done at 15-20 days intervals

Nutrient management :

- Applied in two split doses (onset of simmer and onset of winter)

Situation	Urea	Superphosphate	Murite of potash
		(g/m^2)	
Low maintenance (Residential turf)	100	75	75
High maintenance (Turf in public gardens)	200	100	150

- Irrigation should be done immediately after the fertilizer application

Weed management :

- Nut sedge cane be controlled by spot application with Glyphosate 5@ ml/litre of water + Ammonium sulphate @ g/litre of water.

Pest and disease management:

- Spray Dimethoate / Acephate @ 2 ml/litre + Dithane M-45 @ 2 g/litre should be done twice i.e., onset of simmer and onset of winter.
- Spraying can be done on rainless day.

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