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THE ULTIMATE GUIDE TO ESTABLISHING A PERFECT LAWN IN YOUR GARDEN

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A lawn is an area of closely mowed grasses used for aesthetic and recreational purposes. It is the heart of the garden and a centre for social activity. Lawns are commonly used in individual gardens, public landscapes, and parks worldwide. The lawn is an ideal context to appreciate the beauty of decorative plants and features. A piece of land with a thick layer of lush green grass that is well-maintained resembles a velvety, smooth carpet that is pleasant to the touch and sight. Choosing the correct kind of grass, using the right methods, and giving your lawn continuous care are all necessary for creating and sustaining a high-quality lawn. For this reason, starting early is essential to have a nice lawn. Lawns that are mown to look like carpets are planted with grasses, herbs, and tiny shrubs at the beginning of their growth.

Lawn Establishment

- **Selection of Site**

A sandy loam soil with good drainage is ideal for growing a lawn since it is rich in organic materials. The site should receive direct sunlight. The best view is from the building's south, then southeastern, and finally southwestern sides. There should be no large trees on the site. Grass does not thrive under trees. Dried leaves fall and litter the lawn. Proper drainage is crucial. grass sites contain high-quality topsoil because it serves as the foundation for a healthy grass.

- **Soil Preparation**

Fertile, well-drained soil that retains water well, is devoid of weeds, rocks, and corks, and does not stay soft for an extended period of time after rain. It takes several ploughings to establish good lawn soil to a depth of 22 to 30 cm. to grow the perfect lawn. The ideal pH range for soil is between 6 and 7. The ideal pH range for many warm-season

grasses is 6.5–7.5. Good lawns are produced by organic matter-rich soil. It's critical to understand that the substance in which grass roots develop is more complex than just a solid mass.

- **Digging and Trenching of Soil**

This method is detrimental to lawn health and can lead to failure. Gardeners should use the trenching method to ensure they reach the desired depth when digging. To begin, dig a trench of 60 cm deep and 45 cm wide at one end of the plot. Keep the soil outside the lawn area. The trenches are dug at the same depth and width of 45 cm at a time, with the earth from the previous trench included into the next. The earth dug initially will enter the trench at the far end. At every level of digging, take care.

- **Grading and Levelling**

Grading and levelling a lawn are the processes of shaping and smoothing the ground to make it flat, suitably sloping, and suitable for seeding, sodding, or general landscaping. These measures are critical to creating a healthy, functioning, and visually beautiful lawn. The turf edge is created by elevating the walkways' borders by a modest 15-20 cm slope. This increases the margins by 3-4 cm. When the lawn floods, this method will help to keep the paths dry. It is possible to create a lawn over undulating terrain, and these lawns appear beautiful. However, there should be no dips because water will accumulate and drown the grass. Furthermore, the hills and slopes of a lawn should be carefully created to resemble nature. Therefore, the ground in a lawn should be smoothed to provide a gradual slope for the drainage of excess



Fig. 1 (Grading & Levelling)

water before planting. An exit for draining surplus water ought to be included. To manage nut grass (*Cyperus rotundas*) and other weeds, pre-emergence weedicide Glyphosate (Round up) @ 2-2.5 % is advised. A fortnight before growing grass, a weedicide should be sprinkled on, mixed with flood irrigation, and, if at all feasible, covered with plastic.

Selection of Grass

Bermuda grass, also known as Doob grass, is widely used in sports fields, lawns, parks, golf courses, and utility turfs in India, Australia, Africa, South America, and the Southern United States. It can be found in over 100 nations worldwide, particularly in tropical and subtropical regions. *Cynodon* has nine species, with *Cynodon dactylon* being the most widespread. These grasses are easily cultivated from seeds. *C. dactylon*, or common Bermuda grass, has been naturalized in India's warm regions. Bluegrass (*Poa pratensis*) They demand medium grass care and are suitable for both residential and sporting environments. They have a stunning deep bluish or brilliant green look and are of great quality. They have a dark bluish or vivid blue green look. The species is highly diverse, with cultivars varying in colour, texture, density, vigour, disease resistance, and tolerance for close mowing. Bahia grass (*Paspalum notatum*) Bahia grass is native to Mexico and South America. It prefers sandy soils and tolerates shade. Bahia grass thrives in warm seasons and can withstand droughts. It requires modest upkeep and mowing, and is less susceptible to illnesses and insects than other warm lawn grass varieties. Bahia grass comes in various types, the most popular of which being Argentine and Pensacola. This grass is ideal for lawns due to its durability.

Planting of Grass Deferent Methods in Lawn

One of the following techniques should be used to plant lawn during the early rains:

- **Sowing of Seeds**

Doob seeds are occasionally used to cultivate lawns in India. The most common grass appropriate for seeding is "Doob" grass (*Cynodon dactylon*). At the commencement of the monsoon, grass seeds are disseminated at a rate of 12-15 kg/ha. After seeding and light irrigation, the earth is rolled using a roller. Seeds will germinate in about 3-5 weeks.

- **Dibbling**

This is the most inexpensive but time-consuming option. When the ground is wet from rain, place little pieces of grass roots 10 to 15 cm apart in a levelled area. The roots spread and grow underground over six months, creating a reasonably compact grass through periodic mowing, rolling, and watering. When Korean grass is planted in this manner, patches of grass will occasionally sprout from the lawn unless routine lawn maintenance is undertaken. This can be avoided in large part by changing the planting procedure.

- **Turfing**

Turfing is the quickest technique to grow a lawn, but it uses a lot of planting material.

Spreading or pasting requires the least amount of material. Using this procedure, a 15 × 15 cm square piece of turf is plucked from a lawn or other suitable place, leaving the dirt on the bottom. These components are



Fig. 2 (Turfing)

positioned in the courtyard's brick

pattern, next to one another. Following planting, the turfs should be lightly rolled. To keep the soil moist, use either rain or irrigation. However, utilizing the latter method will take a long time to create a healthy cushion of grass.

- **Instant Lawn**

There are situations where a quick green cover preparation is required for a brief duration. In this situation, a cutting-edge approach might be used. The best way to sow wheat or paddy seeds is to do so thickly on the ground and then cover them with 2-3 cm of screened soil. It can be lightly mowed once germination occurs, when the growth reaches a height of 3–4 cm.

Maintenance of Lawn

- **Weeding**

Weeding must be done at the right time and mode after seedlings germinate. Most pesticides are harmful to newly germinated plants. Delay applying post-emergence herbicides for as long as possible. To effectively control weeds, start by creating a dense and well-managed turf. Herbicides can manage



Fig. 3 (Mowing)

most turfgrass weeds if other methods fail to prevent infection. Pre-emergence herbicides can effectively manage annual grass weeds, including crabgrass.

- **Mowing**

Lawns typically require regular mowing at a height of two inches or more. Cut frequency should correspond to the grass growth rate. No more than one-third of the total leaf surface should be removed during a single mowing. Mowing machine that runs on an engine and rotates overhead may remove any kind of growth, regardless of its height. When growth is slow in the winter, the time between two mowings is typically two to three weeks, depending on how cold it is. In summer, there is an intermediate frequency of mowing. Compared to Doob, Zoysia sp. requires mowing at a frequency that is roughly twice as often.

- **Manure and Fertilizer**

Apply irrigation after raking in 100 g of powdered neem cake and 2 kg of screened cow dung manure per m³. The grass must be manured on a regular basis to maintain its vibrant green colour. A fine-tipped watering can is used to sprinkle 5 Liter of 2% urea solution per 10 square meters of area with nitrogen. The lawn will have a striped appearance if this solution is not applied uniformly. There is a technique that ensures even dispersion.

- **Irrigation**

The water requirement of the lawn is determined by the season, the kind of soil, and whether the grass is a surface feeder. Watering intervals are 3 to 5 days in the summer and 12 to 15 days in the winter. Sprinklers are the most effective technique of irrigation.

Insect Pest Management

- ❖ **Cutworm**

The larvae tunnel into the earth or thatch, emerge at night, and trim the grass blades around the burrow in a circular pattern, cutting them close to the ground. When grass is fed, brown patches that resemble ball markings or circular patches of dead grass with a diameter of one to two inches are produced.

- ❖ **Control**

- One useful tool for tracking adult activities is a light trap.
- Applying Acephate (0.05%), Carbaryl (0.1%), Indoxacarb (0.1%), or Spinosad (0.05%).

❖ Termite

Termites are omnivorous pests that target the roots of grass lawns. The attack site's turf appears to be wilted and dry in certain places.

❖ Control

- Before designing the lawn, soak the soil with either malathion (0.1%) or chlorpyrifos (0.05%).
- Treat the afflicted area with imidacloprid 30.5 SC (0.075%).

❖ Fairy Ring

Fairy Ring is caused by a fungus known as *Marasmius oreades*. Fairy Ring disease is identified in early summer by the presence of dark green, circular bands on the lawn. Fairy Rings typically form in a circular pattern, but it is also possible to find an unformed circle. Band widths range from 4 to 12 inches, while ring diameters can reach 50 yards. During damp weather, mushrooms and toadstools may appear throughout the circle of the rings. The fungus feeds on dead organic debris in the soil and can influence grass growth, making it thicker or thinner than the surrounding grass. Fairy Ring can occur as a result of high soil moisture, poor drainage, and the presence of decaying organic materials, such as leaves or tree stumps



Fig. 4 (Fairy Ring)

❖ Brown Patch

Brown Patch is a leaf disease that can develop on your lawn during hot, humid weather. Brown Patch will typically show as rough, circular patches ranging in size from a few inches to several feet wide. In the early morning dew, you may detect what appears to be purple or grayish-brown cobwebs; this is fungal development. Brown patch is caused by *Rhizoctonia* fungus, which infect grass foliage and crowns.

Conclusion

Establishing a great lawn in your garden needs careful design, the appropriate resources, and constant maintenance. A lush, green lawn that enhances the appearance of your outside space may be achieved by selecting the suitable grass variety for your climate, correctly preparing the soil, and adhering to a regular watering, mowing, and fertilizers plan. Patience and attention to detail are required, but with the appropriate measures, you may have a bright lawn that is both functional and aesthetically pleasing.

References

- De, L. (2017). Lawn grasses-a review. *International Journal of Horticulture*, 7.
- Duble, R. L. (1996). *Turfgrasses: Their management and use in the southern zone* (Vol. 20). Texas A&M University Press.
- Haravandi, A., Gilbeault, V., Henery, M., Wu, L., Geisel, P., & Unruh, C. (2001). *Turfgrass selection for the home landscape*. UCANR Publications.
- Tiwari, A.K., Singh, K.P., Amrapali, S., & Girish, K.S. (2015). Lawn Management. *DFR Extension Bulletin No. 15*. ICAR - Directorate of Floricultural Research, College of Agriculture campus, Shivajinagar, Pune, Maharashtra, India.