e ISSN–2321–7987 | ●●● Article ●●● |Visit us : *www.researchjournal.co.in*|

Lawn and its management

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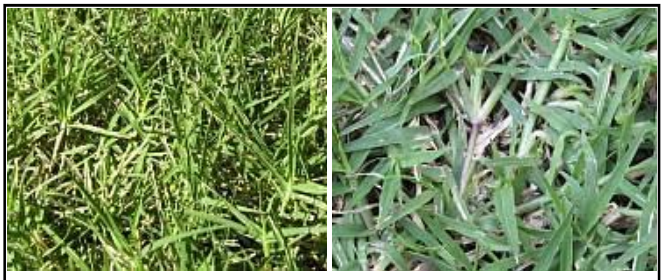
Lawn is an area of aesthetic and recreational land planted with grasses or other durable plants and can be defined by four characteristics: It is composed only of grass species; it is subject to weed and pest control; it is subject to practices aimed at maintaining its green color; and it is regularly mowed to ensure an acceptable length. The term lawn, referring to a managed grass space, dates to no earlier than the 16th century. A lawn, unless properly established and maintained, will not impart beauty to a garden.

Common lawn grasses :

Bermuda grass: (*Cynodon dactylon*) doob grass is the most important lawn grass of the Sun Belt. It has all the essential characteristics a lawn needs for those regions-heat and drought tolerance primarily. Bermuda grass is tough and fast growing enough to be one of the most popular grasses for sports fields. They are deep-rooted, often producing stolons under the ground. 'Dwarf Bermuda' has a slow growth and it spreads laterally. This grass takes a longer time to establish (upto 40 days) and to fully cover the area, yet it rarely requires mowing. Bermuda grass is generally hardy and thrives better in any place where other fine grasses fail to establish.



Tall growing Bermuda **Dwarf Bermuda**

Kentucky blue grass : (*Poa pratensis)* is a medium-fine grass with attractive bluish-green leaf blades and dense growth, which is well adopted to cooler climate. It has slender, tufted creeping or sub-erect stems, 15-50 cm long with broadly lanceolate glabrous leaf blades. This grass requires high organic content in the soil and soft water for irrigation. If brackish water is given, the grass loses the attractive bluish- green colour and the leaves become pale, giving a chlorotic appearance. Bluegrass is one of the most popular types of grass used for lawns, athletic fields and parks, in cool season regions.

Chain grass: *Sporobolus tremulus* is a small, tufted perennial grass with prostate or erect stems of varying length (5-40cm) and always ascending flowering branches. Leaf blades are narrow, linear, and somewhat flat with rounded base. It is quick-growing and can tolerate brackish water. Frequent mowing is required; otherwise the formation of the white flower panicles will mar the appearance of the lawn.

***Japan or Korean grass*:** *Zoysia japonica* is a coarse type of grass suitable for poor sandy soils in the open sunny locations. It has stout stolons that form a compact turf.

***Kikiyu grass*:** *Pennisetum clandestine* is recommended for the acid soils of the hills.

***Lawn buffalo grass*:** *Stenotaphrum dimidiatum* is a coarse grass with dark green, broad leaf blades, coming up well under shade or partial shade. If exposed to the full sun for a long duration, the leaves become pale.This is a quick –growing grass and can be advantageously used to make the shady areas green. The only drawback of this grass is that its leaf blades are thick with coarse to rough texture.

Buffalo grass **Korean grass**

***Variegated lawn buffalo grass*:** A variegated form of this grass, *Stenotaphrum secundatum* var. variegatum, has striped creamy-white leaf blades of 5-10 cm length. This makes a good basket plant, can be used advantageously to cover tree-trunk bases or even as a lawn to give a novel appearance with its variegated leaf blades. However, none of the above- mentioned grasses in general produce seeds in the tropical plains. It is therefore essential to propagate them vegetatively by slips, runners and cuttings.

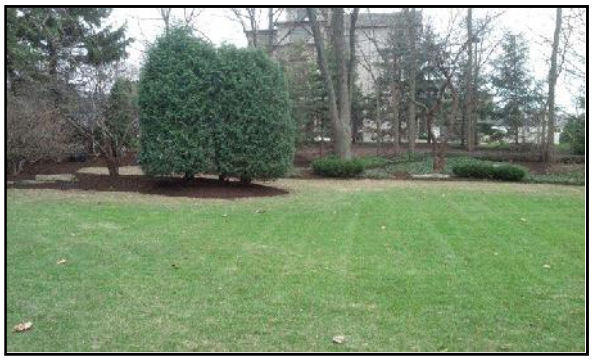
Planting time and planting method :

Hills	-	Feb-March and July-August
Plains	-	July-August
Seed sowing-		Seed is broadcasted @ 10-12 kg/acre in the soil.

Dibbling of roots : In this method, grass pieces along with roots taken from area free from weeds are dibbled at a distance of 10-15 cm both ways. After planting, rolling is done and irrigates the lawn.

Maintenance and aftercare : Since the lawn is to last for several years, careful maintenance is required all through the year.

Mowing and rolling : A lawn raised by planting slips or dibbling roots or stolons will not be ready for mowing at least for 3 months. The grass should establish well and acquire a good anchorage with the newly formed roots. Till then the growth of the grass can be regulated by using sharp shears. If lawn-mower is used before the establishment of the grasses, they may get uprooted by the force of the rotating blades of the mower. After the establishment of the grass, periodical mowing at regular intervals-depending on its growth rate is essential. The length of the leaf blades should be maintained within 5cm. While mowing, the track and direction of mowing should be changed every time so that all the grasses in the lawn come under the blades of the mower for uniformity and evenness. Mowing should be done at an interval of 2-3 weeks depending upon the season and growth of grass. **Irrigation :** An adequate water supply should be there in the root zone of the grass. Insufficient water supply will induce the roots to come to the top layer, with the result even a short spell of drought will cause severe damage to the lawn. Therefore periodical but a sufficient water supply is essential to keep the lawn green. During autumn and winter months, watering is done at an interval of 10 days, whereas in spring and summer months it should be done at an interval of 7 days. The easiest way to know the requirement of water for the lawn is to irrigate it for 1-2 hour and then dig a small hole 10-15 cm deep. If the bottom of the hole is dry, more water is required.



Weeding: The lawn should be free from weeds. Because, after planting the grass, complete removal of other grasses and weeds may be difficult. Broad –leaved weeds can be controlled by spraying weedicides such as 2,4-D sodium salt at 0.8 kg a i/ha.

Raking: Constant mowing and rolling will result in a hard crust at the top surface of the lawn. To avoid it and to aerate the lawn, stir the lawn twice a year before the application of fertilizers with a hand-rake or khurpi. It is also called scrapping.

Manuring: After racking, fertilize the lawn twice a year with a mixture of well decomposed farmyard manure or compost (1kg/m^2), ammonium sulphate (30 g/ m^2), super-phosphate (16 g/ m^2) and muriate of potash (16 g/ m^2). The lawn should be irrigated properly after the application of fertilizers.

Pest and diseases: Numerous insect pests and diseases infect the grasses and destroy the beauty of the lawn.

Fiary ring: Symptoms are circular rings of dead grass. Ring may not be completed and given the appearance of an arc or horse shoe.

Control: Drench the soil with Blitox(0.15%)

Yellowing: This problem arises due to poor drainage or lack of water. Deficiency of nitrogen is also responsible for yellowing of grass.

Control: Loose the soil with the help of khurpi and make small holes with dibbler.

Leaf-hopper: Suck the juice from the leaf blades, causing them to become white, then yellow and finally brown.

Control: Spraying of dimethoate @ 1ml/litre water.

Nematodes: Affected lawn become pale and presents a bleached appearance.

Control: Carbofuran application @ 40 g/m^2 is suggested.

Summary: The success of the lawn depends mainly on the selection of right type of grass for the different climatic regions, soil type, quality of irrigation water etc. There are grasses to suit different climatic conditions and various other situations as tree shade and saline soils. Selection of the right type of grass makes the establishment and maintenance of the lawn easy. The lawn should be absolutely free from weeds. While preparing the ground for laying the lawn, all weeds should be eradicated. Excess application of urea may cause fertilizer burn and presents a burnt appearance. In such cases the lawn should be watered copiously to leach out the excess quantity of the chemical.

Received : *29.09.2015* ***Revised :*** *11.10.2015* ***Accepted :*** *25.10.2015*