



## Turfing- A Key Resource

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Turf establishment is simply describing, the planting of turfgrasses. Turf comprises a considerable portion of landscape for both home and business purposes. A well-maintained turf provided us with many functional, recreational and ornamental benefits. Likewise, they intend to create impact on surrounding environment in aesthetic and recreational manner. The desire of extreme quality turf surface needs high level of management. In addition to the actual process of planting, grass establishment also refers to the interval of time between planting and the point at which the turf reaches an adequate stage of maturity and appearance. This is known as the establishing period. Many variables, such as the site's characteristics, the season, the turfgrass species/cultivars being utilized, and the weather, can affect how long the establishing phase takes.

### Benefits

Functional	Recreational	Ornamental
<ul style="list-style-type: none"><li>• Entrapment of pollutants</li><li>• Environmental protection</li><li>• Glare reduction</li><li>• Slope stabilization</li><li>• Heat abatement</li><li>• Noise abatement</li><li>• Soil loss and erosion control</li><li>• Greenhouse gas reduction</li></ul>	<ul style="list-style-type: none"><li>• Low cost surfaces</li><li>• Mental health</li><li>• Physical health</li><li>• Safe playing surfaces</li></ul>	<ul style="list-style-type: none"><li>• Community pride</li><li>• Increased property value</li><li>• Beautification</li><li>• Complements the landscape</li></ul>

### Turfgrass Selection

- The appearance, suitable applications, cultural needs, insect resistance, and stress tolerance of turfgrass species differ.
- Additional possibilities for efficiently matching grasses with growth circumstances and desired performance are provided by individual cultivars (or varieties) within species.
- Well established and adapted grasses will more likely to exhibit favorable characteristics, and also there will be less water and fertilizer requirement.

Turf establishment generally involves the following phases, starting with a comprehensive site evaluation and moving on to good turfgrass:

**Phase 1:** Site Preparation: assessment, testing of the soil, cultivation, grading, and seedbed setup

**Phase 2:** Sodding and sowing

**Phase 3:** Establishment Period: mulching, watering, mowing, and fertilizing after planting.

### Planting During Pre-Stress Periods

- The ability of grasses to adapt, depends majorly on temperature including the areas, months and seasons where they grow well.
- Cool-season turfgrass roots thrive in soil temperatures between 55° and 65° F, while cool-season turfgrass shoots thrive in air temperatures between 65° and 75° F.
- Growth peaks in the spring and late summer coincide with temperatures in the favorable range; when temperatures fall outside of this range, growth either slows down or stops completely.
- Therefore, planting slightly ahead of the most conducive growth times makes the most sense since it aligns the establishing phase with ideal growing conditions.
- When feasible, steer clear of sowing seeds in late spring, late summer, or late fall—periods of stress and pre-stress. Planting during these times decreases the likelihood of long-term success significantly, and more inputs are frequently needed.

### Establishment Rate Conditions

- Temperature, moisture, fertility, site conditions, and other factors all have an impact on how quickly turf establishes overall.
- One important factor that determines how long the establishment period is is the natural establishment rate of the turfgrass species and cultivars that are utilized.
- Therefore, during the proper planting "windows," slower-establishing species like Kentucky bluegrass should be seeded earlier. As they require longer duration of care in contrast to establishment phase.
- However, quickest the rate of establishment, more flexibility in relation to time can be achieved.
- **Establishment rate:** Fast (Perennial Ryegrass, Annual Ryegrass), Medium/fast (Fine and Tall fescues), Medium (Creeping bent grass) and slow (Kentucky bluegrass).

**Table: Maintenance Requirement**

Species	Cold	Heat	Drought	Shade	Height of cut
<b>Kentucky blue grass</b>	Excellent	Fair	Good	Poor	1.5 to 3.0
<b>Perennial ryegrass</b>	Fair	Fair	Good	Poor	1.5 to 3.0
<b>Fine fescues</b>	Good	Fair	Good	Excellent	1.5 to 3.0
<b>Tall fescues</b>	Fair	Good	Excellent	Fair	1.5 to 3.0

### Conclusion

Turfgrasses have become an essential part of society for a variety of purposes, such as erosion control, aesthetics, recreation, easy to maintain and inexpensive. Also, turfgrasses have proven ability to reduce atmospheric harmful pollutants, improves comfort level and suppressing heath related issues. Its management involves regular mowing, irrigation and occasional pest control.