**TURF IDENTIFICATION**

A. Turf Grass Regions.

1. The United States has six regions or zones based on:

1. Climate.
2. Temperature.
3. Available moisture.
4. Length of growing season.

2. North Carolina has three of the regions or zones:

1. Mountains and Western Piedmont are region/zone 1.
2. Central and Eastern Piedmont are region/zone 2.
3. Extreme Southeastern Coast is region /zone 3.

B. Turf Characteristics

1. Cool Season grasses:
2. Grow best in the spring and fall 65-75 degrees.
3. Stay green in the winter.
4. Best established in the fall.
5. Warm season grasses:
6. Grow best in the summer 80-95 degrees.
7. Go dormant (turn brown) in the winter.
8. Best established in the spring.
9. Leaf color:
10. Light to dark green.
11. Light green.
12. Medium green.
13. Light to dark green.
14. Medium to dark green
15. Leaf texture:
16. Fine- thin needle textured blades.
17. Medium- medium textured blades.
18. Coarse- thick, wide textured blades.
19. Growth habit- how new shoots are produced:
20. Rhizome- underground stem that grows horizontally.
21. Stolon- above ground stem that grows horizontally.
22. Stolon and rhizome- above and underground stems that grow horizontally.
23. Bunch- blades grow in small cluster or tufts from the soil.
24. Wear- how the grass stands up to foot traffic:
25. Excellent.
26. Very good.
27. Good.
28. Fair.
29. Poor.

f. Very poor. C. Grasses for lawns:

1. Tall Fescue.

1. Region- 1, 2, 3.
2. Season- cool season.
3. Leaf color- medium green.
4. Leaf texture- medium to coarse.
5. Growth habit- bunch.
6. Wear- very good.
7. Location- sun and part shade.

2. Kentucky Bluegrass:

1. Region- 1, 2.
2. Season- cool season.
3. Leaf color- medium to dark green.
4. Leaf texture- fine to medium.
5. Growth habit- rhizome.
6. Wear- very good.
7. Location- sun.

3. Red Fescue (fine fescue):

1. Region- 1, 2 (some counties)
2. Season- cool season.
3. Leaf color- medium green.
4. Leaf texture- fine.
5. Growth habit- rhizome.
6. Wear- fair.
7. Location- shade.

4. Creeping Bentgrass:

1. Region- 3.
2. Season- cool season.
3. Leaf color- bluish green.
4. Leaf texture- fine.
5. Growth habit- stolon.
6. Wear- poor.
7. Location- sun.

*\*special treatment- creeping bent requires fans on the golf course greens and frequent watering to keep the seed beds continually moist and cool.*

5. Centipede:

1. Region- 2, 3.
2. Season- warm season.
3. Leaf color- light to dark green.
4. Leaf texture- medium.
5. Growth habit- stolon.
6. Wear- poor.
7. Location- sun.

6. St. Augustine:

1. Region- 2, 3.
2. Season- warm season.
3. Leaf color- medium to dark green.
4. Leaf texture- coarse.
5. Growth habit- stolon.
6. Wear- poor.
7. Location- sun but shade tolerant.

7. Bermuda:

1. Region- 2, 3.
2. Season- warm season.
3. Leaf color- light to dark green.
4. Leaf texture- fine.
5. Growth habit- stolon and rhizome.
6. Wear- excellent.
7. Location- sun.

8. Zoysia:

1. Region- 2, 3.
2. Season- warm season.
3. Leaf color- medium to dark green.
4. Leaf texture- fine.
5. Growth habit- stolon and rhizome.
6. Wear- good.
7. Location- sun or part shade.

C. Grasses not used alone for lawns:

1. Annual rye (over seeding fields and some lawns, never used alone):

1. Region- 2.
2. Season- cool season.
3. Leaf color- light green.
4. Leaf texture- medium.
5. Growth habit- bunch.
6. Wear- good.
7. Location- sun.

2. Bahia (not recommended for lawns, most commonly used for highway grass):

1. Region- 2, 3.
2. Season- warm season.
3. Leaf color- medium to dark green.
4. Leaf texture- coarse.
5. Growth habit- rhizome.
6. Wear- good.
7. Location- sun.

3. Perennial rye (seeded with Kentucky Bluegrass never alone):

1. Region- 1.
2. Season- cool season.
3. Leaf color- medium green.
4. Leaf texture- fine.
5. Growth habit- bunch.
6. Wear- very good.
7. Location- sun.

**TURF SITE ESTABLISHMENT**

A. Turf Grass Site Preparation.

1. Remove trash and debris.

2. Control weeds with herbicide. Spray post-emergence broadleaf

herbicides four to six weeks before seeding or sodding.

3. Grade avoiding steep slopes, low areas and poorly drained areas (no more

than 15% for mowing safety).

4. Protect existing trees and bed areas with silt fencing, edged borders or

mulch.

5. Incorporate a 2%-3% slope away from the home or structure.

6. Soil preparation.

1. Till soil to a depth of 2-3”.
2. Add 4-5” of top soil.
3. Run a soil test.
4. Incorporate lime and fertilizer based on the soil sample results.
5. Finish grade.
6. Roll area with a lawn roller.
7. Water.
8. Seed or install sod.

B. Methods of establishing lawns.

1. Seeding.

1. Is the most common and least expensive way to start a lawn.
2. Seed is sown by hand or with a mechanical device such as a rotary or drop type spreader.
3. Apply half the seed in one direction and the other half at a 90 degree angle to the first pass.
4. Roll the soil lightly to ensure good seed to soil contact.
5. Lightly cover the seed with peat moss or weed free straw.
6. Water to stabilize the seed and peat moss or straw.
7. Seeding for cool season grasses.

1) September 1- September 15- piedmont region.

2) September 15- October 15- coastal region.

3) August 15- September 1- mountain region.

4) Emergency seeding mid-February to early March.

1. Seeding for warm season grasses March 1- July 1.
2. Purchase quality seed. Read the label.

2. Sodding.

1. Using established turf (grass and roots) that is cut in thin layers and removed from growing area in strips.
2. It is then moved to the new lawn, rolled out and fitted together.
3. Start the sodding process from a straight edge to ensure uniformity.
4. Butt strips together and stagger rows in a brick pattern.
5. The new lawn soil should be moist before laying the sod.
6. Water after installing the new sod.
7. Install the new sod within 24 hours to prevent roots from drying out.
8. Unroll sod if it cannot be laid within 48 hours.
9. Sodding provides an instant lawn.
10. Sodding for cool season grasses- anytime during the cooler times of the growing season.
11. Sodding for warm season grasses April- July 1.

3. Plugging.

1. Uses small plugs or blocks of sod to plant in holes about 6-12 inches apart.
2. Very time consuming method of planting grass.
3. This is a common method used for many warm season grasses that are poor seed producers.
4. Water.
5. Plugging for warm season grasses April- July 1.

4. Sprigging.

1. Uses plant runners, cuttings or sprigs (cut stems).
2. Sprigs are rolled or pressed into the top ½ to 1 inch of soil.
3. Water.
4. Sprigging is usually used on larger areas such as golf courses.
5. Sprigging for warm season grasses March 1- July.

C. Care for newly established lawns.

1. Irrigating.

1. Keep the top 1.5” of soil moist by watering two to three times a day for the first 7 to 21 days.
2. Water early in the morning to reduce the risk of disease and water loss.
3. Water established lawns two to three times a week ½ inch each watering.
4. Soil should be moist six to eight inches to encourage good root development.

2. Mowing.

1. Mow when grass is 50% higher than the desired height.
2. Mow to the suggest height for the type of grass you have planted.
3. Mow when the grass is dry with a sharp, clean blade.
4. Mowing height:

|  |  |
| --- | --- |
| Grass | Mowing height |
| Tall fescue | 2.5- 3.5 inches |
| Kentucky bluegrass | 1.5-2.5 inches |
| Red fescue | 1.5-2.5 inches |
| Creeping Bentgrass | .125-.5 inch |
| Centipede | 1-1.5 inches |
| St. Augustine | 2.5-4 inches |
| Bahia | 2-4 inches |
| Bermuda | .75-2 inches |
| Zoysia | .75-2 inches |

3. Fertilizing.

1. Apply fertilizer with a rotary or drop type spreader.
2. Apply half the fertilizer in one direction and the other half at a 90 degree angle to the first pass.
3. For seeded lawns fertilize six to eight weeks after seed emerges.
4. For sodded, plugged or sprigged lawns fertilize every three to four weeks throughout the growing season.

4. Pest control.

1. Weeds.

1) Common in newly seeded lawn.

2) Proper mowing will eliminate most weeds.

3) Follow the directions on a selective herbicide if weeds are an issue.

1. Insects.

1) Check newly established lawns on a regular basis for insect

issues.

2) Identify and treat as needed.

1. Diseases.

1) Do not overwater newly established lawns as this can cause

diseases.

2) Hot summer weather can also cause disease issues.

3) Identify and treat as needed.

D. Grass seed terminology.

1. Viable- the ability to germinate.

2. Inert ingredient- stems and/or other plant products that is not viable.

3. Weed seed- any seed not defined as a component in “other crop”.

4. Noxious weed- invasive, hard to control weed seed.