

**BLUEGRASS/FESCUE LAWN MAINTENANCE
PROGRAM II**

Using Insoluble N Fertilizers (35% WIN or less)

**SOIL TESTING LABORATORY
110 WORRILOW HALL
NEWARK, DE 19717-1303**

Date **Amount to apply per 1000 sq. ft.**

---- Clippings Removed ----

Aug. 15 - Sept. 15 20 lbs. 10-6-4

March - April 10 to 15 lbs. 10-6-4

---- Clippings Left On ----

Aug. 15 - Oct. 1 8 to 10 lbs. 26-4-6, 27-3-3 or
equivalent

March - April 4 to 5 lbs. 26-4-6, 27-3-3 or
equivalent

SOIL TEST NOTES

**NOTE 9: Fertilizing Bluegrass and Fescue
Lawns**

ESTABLISHMENT OF NEW LAWNS

LIME -- Spread ground limestone evenly at the recommended rate and mix thoroughly into the soil to a depth of 4 to 6 inches. Rototilling will work best although spading and hoeing are also effective.

Apply lime before seeding. Lime applied on the surface moves into the soil very slowly. When you apply lime before seeding, it can be worked in, to bring the soil pH up to its optimal level of 6.0 to 6.5. Once the lawn is established, only small amounts of lime every two or three years are needed.

FERTILIZER -- When seeding a lawn, spread the recommended fertilizer over the surface and mix in thoroughly. After lime and fertilizer have been incorporated, rake the area smooth and spread the seed.

Recommendations are given as an amount of a certain type, or grade, of fertilizer. The three numbers, such as 10-10-10, refer to the percentages of nitrogen (N), phosphorus (P₂O₅), and potassium (K₂O) in the fertilizer. Substitutions for recommended grades of fertilizer can almost always be made. For example, substituting 4-10-6 for 5-10-5 will not result in noticeable differences because the two materials are so similar. Alternatively, 8-18-10 could be used at one-half the rate recommended for 5-10-5 because the two materials have similar ratios (approximately 1-2-1). Similarly, 7 pounds 18-5-9 will do the same job as 10 pounds 12-4-8. Use a material that is readily available from a local supplier and calculate the actual amount of fertilizer applied.

ADDITIONAL INFORMATION

Additional information may be obtained from University of Delaware Cooperative Extension offices in Newark, Dover, and Georgetown.

Revised by:

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MAINTAINING AN ESTABLISHED LAWN

LIME -- Spread ground limestone evenly at the recommended rate. If more than 50 lbs. per 1000 sq. ft. are needed, make two or more applications, several months apart, until the full amount has been applied. Applying more than 50 lbs. per 1000 sq. ft. at any one time may result in an undesirable residue on the turf.

If the pH of an established lawn is below 5.3, work the lime into the surface using a power rake or verticutter.

FERTILIZER -- Your Soil Test Report gives suggestions for one or two fertilizer applications designed to establish optimum soil fertility levels. Subsequent applications for maintaining fertility can be selected from one of the programs given in the following tables.

When selecting a lawn fertilizer, pay attention to the type of nitrogen in the fertilizer. Many turf fertilizers contain slowly available nitrogen called water-insoluble N (W.I.N.). Recommendations call for either a soluble N fertilizer (less than 35% W.I.N.) or slowly available nitrogen source (greater than 35% W.I.N.). The amount of W.I.N. is given on the fertilizer label. For example, a label may read:

Total Nitrogen 10%
 Water-insoluble Nitrogen (WIN) 4%

In this fertilizer, 4%/10% x 100 = 40%, of the total nitrogen is slowly available. This is above the necessary 35% for a slow-release turf fertilizer. Substitutions for grades of fertilizer can be made as described in the section on lawn establishment. However, do not make substitutions of soluble N fertilizers for insoluble N fertilizers, or vice-versa. The rates and timings of the applications given are designed for only one type of fertilizer. Single, heavy applications of soluble N fertilizers may cause burning, will cause excessively early growth, and N may be in short supply later in the year.

The soluble nitrogen and potassium found in most fertilizers can burn grasses. Avoid burning by spreading fertilizer when the grass is dry and then watering in the fertilizer. Avoid early morning and late afternoon applications. Watering in fertilizer can also prevent losses of nitrogen as ammonia gas from some fertilizers, especially those containing urea.

Two maintenance fertilizer programs are given here. Program I uses soluble nitrogen fertilizers, while Program II uses fertilizers with slowly available N. The type of fertilizer used depends on whether or not the clippings are removed from the lawn. When clippings are left on, phosphorus and potassium are "recycled", and maintenance fertilizer consists primarily of nitrogen. When clippings are removed, some P and K should be applied to maintain adequate soil fertility.

Either of the programs given should result in quality turf. Choose the program best suited to your needs and the availability of fertilizers in your area.

BLUEGRASS/FESCUE LAWN MAINTENANCE PROGRAM I

Using Soluble N Fertilizers (35% WIN or less)

Date	Amount to apply per 1000 sq. ft.
----- Clippings Removed -----	
Aug. 15 - Sept. 15	10 lbs. 10-6-4
Oct. 1 - Nov. 1	10 lbs. 10-6-4
Optional: March - April 15	5 lbs. 10-6-4
----- Clippings Left On -----	
Aug. 15 - Sept. 15	3 lbs. Ammonium Nitrate (34-0-0) OR 2 lbs. Urea (46-0-0)
Oct. 1 - Nov. 15	3 lbs. Ammonium Nitrate (33-0-0) OR 2 lbs. Urea (46-0-0)
Optional: March - April 15	1-1/2 lb. Ammonium Nitrate (33-0-0) OR 1 lb. Urea (46-0-0)