

# SOIL TEST INFORMATION SHEET NO. T-610

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## **Athletic Fields, Fairways, Sod, Lawns and Establishment**

1. If values of phosphorus (P) or potassium (K) read low or very low, split the application into two or three topdressings adding these nutrients in April, June and/or August.
2. Apply 1 pound of nitrogen (N) per 1000 square feet every three to four weeks until desired density is obtained, then apply N every five to six weeks (April-September) to keep desired growth. Exception to above on carpetgrass or centipedegrass: these two grasses need only a half pound of N per 1000 square feet applied two or three times per year. Do not try to darken these two naturally light grasses by keeping them well fed. This leads to thatch, decline, and pest problems.
3. If slow-release materials are used, apply at longer time intervals since they feed longer.
4. If lime is required and magnesium (Mg) rates are low, choose dolomitic lime.
5. If a soil test shows low Mg and is high or medium in pH and Ca, add Mg using potassium-magnesium-sulfate (K-MAG) as your source of potassium/potash this season. K-MAG fertilizer has about 22% potash (K) and 11% magnesium (Mg). You can also use Epsom salt at 5-6 lbs./1000 sq.ft.
6. Regular feedings with 'turf' blends of fertilizer can be used to supply the nutrients specified. These turf blends are fertilizers in the ratio of higher N, lower P and moderate K levels.
7. If **no** P<sub>2</sub>O<sub>5</sub> is recommended, apply little or preferably no phosphorus (P). This is especially true for centipede and carpetgrass turf.
8. Contact your county agent for additional information and help in your fertilization program. The agent also receives a copy of this report for the parish office files.

## **Understanding Fertilizer**

Fertilizers come in different strengths and blends, the three numbers on the bags show the percent by weight of the three major nutrients. The first number is always the percent of nitrogen (N). The second is always the percent phosphorus (P) as expressed in phosphate called P<sub>2</sub>O<sub>5</sub> equivalent and thus is not pure P. The third number is the percent of potassium (K) expressed in the oxide called K<sub>2</sub>O equivalent.

The higher the number the stronger the nutrient is in the fertilizer. You could apply more of a weaker fertilizer to get the amount of needed or less of a stronger fertilizer.

Blended fertilizers have more than one nutrient like 0-20-20 or 8-24-24. A complete fertilizer is one which has some of all three nutrients like 8-24-24. Muriate of potash is 0-0-60 while concentrated super phosphate is 0-42-0. Nitrogen sources might be ammonium nitrate 33-0-0, ammonium sulfate 20-0-0 or urea 46-0-0. Other fertilizer materials are potassium sulfate (0-0-52), DAP (18-46-0), IBDU (31-0-0), SCU (32-0-0), UF (38-0-0), bone meal (2-20-0) or cottonseed meal (6-3-2). About seven pounds of cow manure can substitute for one pound of 8-8-8.

Dividing the percent into 100 gives the pounds of the fertilizer needed to supply one pound of that nutrient. Take 8-8-8 for example (100 divided by 8 = 12.5). Therefore, 12.5 pounds of 8-8-8 provides a pound each of N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O.

The ratio of a fertilizer refers to the comparison of these numbers to each other. Different crops and soils may need different ratios. For example 8-8-8 is a 1-1-1 ratio while a 5-10-15 fertilizer is a 1-2-3 ratio showing a generally low N, moderate P and higher K.

Application rates given in pounds per acre can be seen in pounds per 1,000 square feet if you divide by 44. Example: 264 lbs/ A= 264/44 or 6 lbs/1000 sq. ft. Likewise, rates given in per 1,000 sq.ft. can be multiplied by 44 to yield per acre.