

Soil Test Information Sheet No. G-707 Revised

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Home Vegetable Gardens

1. **Please refer to your Soil Test Results sheet** to determine which **Phosphorus** and **Potassium** category your sample will fit into. Please note what the interpretation is for these two nutrients. Example: “**Phosphorus- Low**” and “**Potassium- Low**”. Look on the **Home Vegetable Garden Fertilizer Recommendations Table** where you will find this category given as “**Low P and Low/Medium K**”, this is the first listing in the left-hand column. The fertilizer recommendations are shown to the right of the category, under one of three crop group headings. These recommendations are based on 100 feet of row.
2. If soil test values read low, you may wish to split the fertilizer application in half. Apply half of the recommended Phosphate and Potash at planting and topdress the other half one month later to avoid fertilizer burn.
3. If lime is recommended and the Calcium level is low and Magnesium is medium to high, use calcitic lime(ag lime). If both Calcium and Magnesium are low, use dolomitic lime.
4. If the soil test Calcium levels are low and the soil pH is optimum or high, add 40 to 80 pounds of gypsum (calcium sulfate) per 1000 square feet while tilling the soil before planting.
5. If a soil test shows low Magnesium and is optimum to high in pH and Calcium, add Magnesium to the soil at a rate of 15 to 25 pounds per 1000 square feet of Epsom salt (magnesium sulfate) or by using potassium-magnesium-sulfate as your source of potassium this season.
6. On Irish potatoes, sweet potatoes and melons, do not lime if the pH is 5.5 or higher.
7. Contact your local County Agent for additional information and assistance on your soil fertilization program. The agent also receives a copy of this report for the parish office files. The Agent’s office telephone number can be found near the bottom of the Soil Test Results sheet.

Understanding Fertilizer

Fertilizer comes in different strengths and blends, the three numbers on the fertilizer bag show the percent by weight of the three major nutrients. The first number is always the percent nitrogen (N). The second is always the percent phosphate (P_2O_5). The third number is always the percent potash (K_2O).

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

Blended fertilizers have more than one nutrient like a 0-20-20 or 8-24-24. A complete fertilizer contains some of all three of the major nutrients like 8-24-24. Muriate of potash is 0-0-60; Triple super phosphate is 0-46-0. Nitrogen sources include the fertilizer materials like Ammonium nitrate (34-0-0), Urea (46-0-0), or Ammonium sulfate (21-0-0). Other fertilizer materials include Potassium sulfate (0-0-52), Diammonium phosphate-DAP (18-46-0), Sulfur Coated Urea-SCU (36-0-0), Ureaform-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 of a fertilizer nutrient into 100 gives the pounds of that fertilizer material needed to supply one pound of that nutrient. Take 8-8-8 as an example, (100 divided by 8 = 12.5). Therefore, 12.5 pounds of 8-8-8 provides one pound each of Nitrogen (N), Phosphate (P_2O_5) and Potash (K_2O).

The ratio of a fertilizer refers to the comparison of nutrients to each other. Different crops and soils may need different ratios. For example, 8-8-8 has a 1:1:1 ratio, while a 5-10-15 fertilizer has a 1:2:3 ratio, showing a generally low N, moderate phosphate and higher potash.

Application rates given in pounds per acre can be converted to pounds per 1,000 square feet, if divided by 44. Example: 264 pounds per acre divided by 44 = 6 pounds per 1,000 square feet.

Home Vegetable Garden Fertilizer Recommendations Table

Soil sample interpretation for Phosphorus(P) and Potassium(K):	Corn, Irish potatoes, Tomatoes	Peppers, Eggplant, Onions, Shallots, Cabbage, Cole crops, Greens, Spinach, Melons, Cucumbers, Squash, Beets, Carrots, Turnips	Okra, Peas, Beans, Sweet potatoes
Low P and Low/ Medium K	4 pounds 8-24-24 / 100 ft row ½ pound ammonium nitrate, twice	3 1/4 pounds 8-24-24/ 100 ft row 2/3 pound ammonium nitrate, once	2 ½ pounds 8-24-24/ 100 ft row 1/3 pound ammonium nitrate, once
Low P and High K	1 pound 8-24-24 /100 ft row + 1 pound super phosphate <u>or</u> 3 pounds bone meal ¾ pound ammonium nitrate, twice	1 pound 8-24-24 /100 ft row + ½ pound super phosphate <u>or</u> 1 ½ pounds bonemeal 1 pound ammonium nitrate , once	3 pounds 8-8-8/ 100 ft row
Medium P and Low/ Medium K	2 2/3 pounds 8-24-24 / 100 ft row 2/3 pound ammonium nitrate, twice	1 pound 8-24-24/ 100 ft row 1 pound ammonium nitrate, once	1 1/3 pounds 8-24-24/ 100 ft row 1/3 pound ammonium nitrate, once
Medium P and High K	1 ½ pounds 8-24-24 / 100 ft row+ 1 pound super phosphate <u>or</u> 3 pounds bonemeal ¾ pound ammonium nitrate, twice	1 1/4 pounds 8-24-24/ 100 ft row + 1 pound super phosphate <u>or</u> 3 pounds bonemeal 2/3 pound ammonium nitrate, once	2 ½ pounds 8-24-24 /100 ft row + 1 pound super phosphate <u>or</u> 3 pounds bonemeal 1/3 pound ammonium nitrate, once
High P and Low/ Medium K	4 pounds 8-8-8/ 100 ft row + 1 pound 0-0-60 ½ pound ammonium nitrate, twice	3 pounds 8-8-8 / 100 ft row + 2/3 pound 0-0-60 1 pound ammonium nitrate, once	3 pounds 8-8-8/ 100 ft row
High P and High K	3-4 pounds 8-8-8/ 100 ft row 2/3 pound ammonium nitrate, twice	3 pounds 8-8-8/ 100 ft row 1 pound ammonium nitrate, once	2 pounds 8-8-8/ 100 ft row ½ pound ammonium nitrate, once

NOTE : Recommendations in bold print under the crop column is the “at planting” recommendation.

Regular print under the crop column is the sidedress application, if needed.

For VERY HIGH P&K , just apply only the N listed for HIGH P&k.

Triple 13 can substitute for triple 8 when used at 2/3 the rate.