SOIL TEST INFORMATION SHEET NO. G-730

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Home Vegetable Gardens With Medium P and High K

1. If soil test values read low, you may wish to split the fertilizer application in half. Apply half the recommended P and K at planting and topdress the other half one month later to avoid fertilizer burn.

2. If lime is required and Mg rates are low, choose dolomitic ('high mag') lime. Otherwise choose ('calcitic') ag lime.

3. If soil test shows low Ca and pH is medium or high, add 40 to 80 pounds gypsum per 1000 square feet while tilling the soil before planting.

4. If a soil test shows low Mg and is medium or high in pH and Ca, add Mg as 15 to 25 pounds per 1000 square feet Epsom salt or by using potassium-magnesium-sulfate as your source of potassium this season.

5. For corn, Irish potatoes and tomatoes, apply at planting 1 1/2 pounds of 8-24-24 per 100 feet of row plus one pound of super phosphate or 3 pounds bonemeal. Sidedress 3/4-pound ammonium nitrate twice during the crop.

6. For peppers, eggplants, onions, shallots, cabbage, cole crops, greens, spinach, melons, cucumbers, squash, beets, carrots and turnips, apply at planting 1-¼ pounds of 8-24-24 per 100 feet of row plus I pound super phosphate or 3 pounds bonemeal. Sidedress 2\3 pound ammonium nitrate.

7. For okra, peas, beans and sweet potatoes, apply at planting 2 ½ pounds of 6-24-24 per 100 feet of row plus one pound of super phosphate or 3 pounds bonemeal. Sidedress okra and beans with 1/3 pound ammonium nitrate once if needed.

8. On Irish potatoes, sweet potatoes and melons, do not lime if pH is 5.5 or higher.

9. 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_2O_5 equivalent and thus is not pure P. The third number is the percent of potassium (K) expressed in the oxide called K_2O 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 90-0-50), DAP (18-46-0), IBDU (31-0-0), SCU (32-0-0), UF (38-0-0), bonemeal (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_2O_5 and K_2O.

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 n pounds per acre can be seen in pounds per 1000 square feet if you divide by 44. Example: 264 lbs/ A= 264/44 or 6 lbs/1000 sq. ft.