



Garden Recommendation Explanations and Information

This is a general guide to interpreting your lawn and/or garden analysis. If you have questions about your sample, please give us a call or send an email.

Thanks for your business, Good Luck and Happy Gardening!

Fertilizer numbers

Fertilizer sources are listed as numbers for Nitrogen (N) - Phosphorus (P) – Potassium (K) – Sulfur (S). The number represents the percentage of each material. For example:

- 46-0-0 is 46 units of nitrogen in 100 pounds of material.
- 16-16-16 is 16 units of Nitrogen, Phosphorus, and Potassium per 100 lbs.
- 21-0-0-24 is 21 units of N, zero of P and K and 24 units of Sulfur.

Do not use “weed and feed” products on your garden

Commercial and Lawn fertilizers often contain herbicides for weed control. Fertilizers that are formulated to kill broadleaf weeds such as dandelions and thistles will also kill vegetables and flowers.

Rates to apply

Garden recommendations are made in pounds of material per 1000 square feet. For example: 3#/1000 sq. ft. of 46-0-0 is 3 pounds of product (46-0-0 or nitrogen) broadcast over 1000 square feet. Smaller areas can be converted to pounds per 100 square feet and larger gardens may be reported in pounds per acre. For example, a 25 by 10 foot flower garden would be 250 sq ft and would require 25% of 3# of .75# of 46-0-0.

Applying fertilizer before planting

Apply fertilizer in the spring by broadcasting it on the ground surface. Work the fertilizer into the soil 6-8 inches deep and then plant. Mulch, manure or compost materials can be applied the same way. (See notes on manure and compost material). Nitrogen can evaporate if left exposed on the top of the soil. Water dissolves the fertilizer making it accessible to the plants. Too much fertilizer at one time can “burn” the plants, especially seedlings. So, when you can, work the fertilizer into the ground, irrigate and let set for a few days before planting.

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Fertilizer application in June/July

Additional fertilizer is needed when the initial nutrient levels are low, when the soil is sandy or as the growing crops use nutrients. Broadcast the fertilizer between the rows and irrigate as soon as possible.

Organic Fertilizers

Sources of organic fertilizer are available and use the same numbering system as commercial fertilizer. For example, alfalfa pellets are typically 3-.5-3, or 3% nitrogen, .5% phosphorus and 3% potassium.

High Phosphorus levels and Iron/Zinc deficiency

Excessive Phosphorus levels may induce iron or zinc deficiency. Zinc/iron deficiency develops after the plants are established (about 4 weeks old or more) and will cause the young leaves or new growth to be yellow or white. Treat this deficiency by spraying iron or zinc on the leaves (foliar application), once a week for 3-4 weeks. Do not soak the leaves; instead apply a light spray. Do not use manure for 3 years or longer. Call if you suspect iron deficiency and need instructions for mixing or applying foliar spray.

Common Ion Competition

Excessive levels of potassium, sulfur, phosphorus or salt may cause an imbalance in the soil referred to as common ion competition. A high level of one cation (such as potassium) will interfere with the plants ability to use other elements (such as calcium or magnesium). In this example the plant has so much potassium available that it does not utilize calcium or magnesium even though adequate levels of calcium/magnesium are available. In other words, the plants need a more balanced diet. Watch the young leaves or new growth on established plants (about 4 weeks old) for yellow or white color. Give us a call if this happens.

Manure/Compost materials

Manure, compost, and mulch are valuable soil amendments. They can contain organic matter, nitrogen, phosphorus and potassium. However, without analyzing the material, there is no way of knowing how much and what you are adding to the soil. Caution is advised in continuous or annual applications of these materials as they can gradually build nutrient levels in the soil. Excessive levels of nitrogen, phosphorus, potassium, sulfur or salt are generally an indication that manure has been used heavily in the past. Compost material and peat moss can also contain high levels of salt. Nitrate release from organic matter is slow and the levels may accumulate over time. If you prefer to use manure and compost, it is best to apply it every other year. It is advisable to have your soil analyzed every 2 years to make sure that the soil levels remain in balance.

Grass Clippings

It has become a common practice to incorporate grass clippings the garden soil or add them to composters. If you use a "weed and feed" fertilizer, the weed killers may still be active in the grass clippings. This could adversely affect vegetables and flowers causing the plants to be stunted or die.