

Fertilization Recommendation Sheet for Group I Vegetables Home Garden Recommendations

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Information in this sheet is specific to the following vegetables:

Sweet Corn, Irish Potatoes, Tomatoes and Strawberries

Soil pH

pH is the most important factor when making fertilizer recommendations. Correct pH problems prior to applying fertilizer. In most cases, if pH levels are too low individual nutrients may be taken up by plants too rapidly and cause symptoms related to nutrient toxicity. If the soil pH is too high, individual nutrients have a hard time unbinding from the soil and moving into plant roots, causing nutrient deficiency symptoms. Sometimes you will also see nutrient deficiency symptoms when the soil pH is correct but when the air and soil temperatures are too cool or the soil is too wet. These nutrient deficiency symptoms occur because the plant is not actively growing and therefore not actively pulling nutrients from the soil into their tissue.

When to Fertilize

There are two key times to fertilize vegetable plants during the growing season. The first is PRE-PLANT fertilization or applying fertilizer to the soil before you plant your crop. Make sure that you irrigate your garden area or allow a rain to fall between fertilizer application and before planting your crop. Most home gardeners apply all three major macronutrients (Nitrogen (N), Phosphorus (P), and Potassium (K)) to their garden during the preplant fertilizer application.

The second fertilizer application is called SIDE DRESSING. Side dressing occurs in direct seeded crops well after the first true leaf has formed. In transplanted crops, side dressing occurs when the plants are actively growing. The term side dressing comes from the fact that the fertilizer application is applied to the side of the row or 4-6 inches from the main stem of the vegetable plant. Home gardeners usually focus most on nitrogen (N) only for the side dress fertilizer application. However, if you see signs of micronutrient deficiency, you can also apply those as a Sidedress application. When side dressing, try and incorporate the fertilizer into the row, or apply granular fertilizers and water them in to avoid having them sit on the soil surface for prolonged periods.

- **NOTE:** If planting in containers, using potting mixes that include fertilizer, using this fresh soil is the equivalent of a preplant fertilizer application. You may only need to sidedress. If the potting soil is several years old and you are using it with no additional soil added, you will want to add fertilizer at preplant and sidedress application periods. Please note that gardeners typically use water-soluble and slow-release fertilizers with potting soil. Potting soil unlike soil in the ground in your backyard is composed of mostly peat moss. Peat moss reacts with fertilizer very differently than mineral based soil. Therefore, you would have indicated to this soil lab that you are testing a potting mix...

not actual soil. Your results will be drastically different if you use the wrong submission sheet.

How to Fertilize

Vegetable Crop	Ideal Soil pH Range	Specific Notes on Pre-plant fertilizer application	Specific notes on Sidedress fertilizer applications
Sweet Corn	6.0-6.5	Apply 50-75% of the total recommended Nitrogen in the preplant fertilizer application.	Sidedress when corn is 12 and 24 inches tall. 25-50% of the total nitrogen needed should be applied as a Sidedress application.
Irish potato	5.8-6.2	On loam and silt soils, most people apply all nitrogen in the preplant fertilizer application.	On sandy soil, apply a third of the Nitrogen at preplant and the rest as a sidedress application 4-5 weeks after planting.
Tomato	6.0-6.5	Apply 50% of the total recommended nitrogen to the crop at the pre-plant fertilizer application.	Side dress when the first flower clusters set on the plant and again at the second flower cluster set for determinate tomatoes, and again at the third flower set for indeterminate tomatoes.
Strawberry	5.8-6.2	It is important to wait for rain or irrigate between preplant fertilizer application and planting bareroot plants.	Sidedress weekly starting at the first flower set through harvest using approximately 0.25 lbs of calcium nitrate or potassium nitrate per 100 ft row (400 square feet).