

Fertility Guidelines for Gardens and Small Vegetable Acreage

Crop Groupings (examples)	Nitrogen (lb. N/Acre)	Phosphorus (lb. P ₂ O ₅ /Acre)	Potassium (lb. K ₂ O/Acre)
Cole Crops – Broccoli, Cabbage, Cauliflower, Brussels sprouts	(120-140) 24-28 GPA High NRG-N	(50-165) 4-16.5 GPA Pro-Germ	(135-200+) 10-16+ GPA Sure-K
Vine Crops – cucumber, squash, pumpkins, watermelons	(80-100) 16-20 GPA High NRG-N	(25-150) 2-15 GPA Pro-Germ	(100-250) 8-19+ GPA Sure-K
Flowering vegetables – tomatoes, peppers, eggplant	(100-120) 20-24 GPA High NRG-N	(20-160) 2-16 GPA Pro-Germ	(140-210) 11-16+ GPA Sure-K
Leafy vegetables - lettuce, spinach, celery	(100-120) 20-24 GPA High NRG-N	(50-220) 4-22 GPA Pro-Germ	(50-450+) 4-35+ GPA Sure-K
Root Vegetables – carrots, beets, onions	(80-100) 16-20 GPA High NRG-N	(40-200+) 3-20 GPA Pro-Germ	(100-250+) 8-19+ GPA Sure-K
Legumes - snap beans, peas, lentils	(20-40) 4-8 GPA High NRG-N	(70-150) 5.5-15 GPA Pro-Germ	(65-200) 5-16+ GPA Sure-K
Asparagus	(60-80) 12-16 GPA High NRG-N	(50-150) 4-15 GPA Pro-Germ	(10-50) 2-4+ GPA Sure-K
Sweet corn	(70-120) 14-24 GPA High NRG-N	(25-175) 2-17.5 GPA Pro-Germ	(35-200) 3-16 GPA Sure-K
Potatoes	(120-160) 24-32 GPA High NRG-N	(150) 11-15 GPA Pro-Germ	(150- 280) 12-22+ GPA Sure-K

Suggested rates shown here are for **Mineral soils – mid range in soil available nutrients and moderate to high yield goals.**

KEY POINTS FOR VEGETABLES:

- **Do not apply any fertilizer directly on any vegetable seeds as stand reductions are very likely to occur.**
- **Vegetables very responsive to micro-nutrients – Always use some Micro-500**
- Straight Nitrogen products should NOT be applied in transplant solutions.
- It is best to split apply Sure-K if the total need exceeds 10 GPA – Apply some at planting and the remainder with the side dress nitrogen.

• *Leaves and grass clipping applied to garden area will reduce the nitrogen levels initially, but can increase the organic matter significantly and can have a positive long-term impact on soil structure of if they are tilled into the soil. Grass clipping are much higher in nitrogen content than leaves, but decomposition is still required for the*

nutrients to be released to the garden soil. Placing all the leaves from many trees on a small garden can negatively impact the nutrient balance of the soil, so soil sampling even for small gardens can be important to maintaining optimal vegetable growth and making the correct fertilizer applications.

Transplant / Starter solutions: DO NOT exceed 15 tsp or 3 Tbs. per gallon of water.

Apply 6-8 oz final solution per plant (16-20 plants per gallon of mix)

• **Mix ¼ to ½ tsp. of Micro-500 per gallon of water**

• Pro-Germinator & Sure-K Applications:

• 1 tsp/Gal is approximately 2.5 gallons per acre

• 1 Tbs./Gal is approximately 7.5 gallons per acre

• **DO NOT APPLY FERTILIZERS CONTAINING ONLY NITROGEN WITH THE TRANSPLANT SOLUTION.** Allow all plants to become established before starting nitrogen applications.

Side Dress Applications (pour on soil surface beside the planted row): Mix products according to conversions shown above. Rates are based on applying one gallon of mixture per 16-20 ft of row. **It is best to avoid getting fertilizer solutions on plant leaves during application, leaf injury can result.** Dividing the nitrogen application into two or three applications per season is fine, but all fertilizers should be applied by mid-season.

Larger Garden Areas: Broadcasting Pro-Germinator and Sure-K will reduce the efficiency of these products compared to banding or transplant applications.

• Apply 20% more material if you use broadcast applications.

• Rates per foot of row with banding will change based on row spacing.

• **DO NOT APPLY FERTILIZER DIRECTLY ON VEGETABLE SEEDS**
1 GPA = 3 oz per 1000 ft² of cropping area.