

**Soil Test Analysis Recommendations—
Vegetable & Flower Gardens**

305-03

Don Janssen, Extension Educator

Nitrogen Recommendations

Nitrogen (N) fertilizer recommendations for vegetable and flower gardens are based on the organic matter content of the soil and the crops that are grown. Nitrogen fertilizer should be applied in the spring, prior to planting annual vegetables and flowers or at the time growth begins for most established perennials. Nitrogen fertilizer can either be surface applied or incorporated into the soil.

**NITROGEN RECOMMENDATIONS FOR
VEGETABLE AND FLOWER GARDENS**

Soil organic matter level ¹	Amount of nitrogen (N) to apply ² lb. N/100 ft ²
Low	0.20
Medium to high	0.15

¹Low organic matter = less than 3.1%, medium to high = 3.1 to 19%

²An additional 0.15 lb. N/100 sq.ft. may be needed as a sidedress application 3-4 weeks after planting for sweet corn, vine crops, tomatoes, potatoes, and cole crops.

Phosphorus and Potassium Recommendations

Phosphorus (P) and potassium (K) fertilizer recommendations for vegetable and flower gardens can be applied in either fall or spring. For annual plantings and new perennial plantings, broadcast the recommended amounts of P₂O₅ and K₂O and incorporate the fertilizer into the top 4 to 6 inches of soil. For established perennials, topdress fertilizer around the plants and work it lightly into the soil to avoid disturbing plant roots.

**PHOSPHORUS RECOMMENDATIONS FOR
VEGETABLE AND FLOWER GARDENS**

Phosphorus (P) soil test level		Amount of phosphate (P ₂ O ₅) to apply lb. P ₂ O ₅ /100 ft ²
Bray-P1 ppm	Olsen-P ppm	
0-5	0-3	0.4
6-10	4-7	0.3
11-15	8-11	0.2
16-25	12-18	0.1
over 25	over 18	0.0

**POTASSIUM RECOMMENDATIONS FOR
VEGETABLE AND FLOWER GARDENS**

Potassium (K) soil test level ppm	Amount of potash (K ₂ O) to apply lb. K ₂ O/100 ft ²
0-50	0.4
51-100	0.3
101-150	0.2
151-200	0.1
over 200	0.0