Top or Side-Dressing Nitrogen Fertilizer

By Gregg Eyestone Riley County Extension Agent, Horticulture

Soils that have been enriched with organic matter and particularly with manure annually may not require much to any additional nitrogen. Monitor your crops growth and determine if additional nitrogen is needed.

Crop	Approximate pounds needed of any one of the examples below per 100 feet of row.			Time of application
	Ammonium Sulfate (21-0-0)	Urea (46-0-0)	Blood Meal (12-0-0)	Sprinkle the nitrogen fertilizer in the row and water in with up to 1/2 inch of water.
Annual flowers	0.5	0.25	1	Over the course of each month until frost.
Astilbe, daylily, garden phlox, lupines, mums	0.5	0.25	1	Apply after bloom.
Asparagus	2.5	1	4	Before growth begins in spring or after harvest.
Rhubarb	0.75	0.33	1.5	When plants are 2—10 inches tall.
Cabbage, cauliflower, broccoli	1.5	0.5	2	Three weeks after field transplanting.
Cucumber, cantaloupe, pumpkin	1.5	0.75	2.5	One week after blossoming begins. Three weeks later.
Onions (mature)	0.75	0.33	1	Two to four weeks after planting.
Peas and beans	1.25	0.5	2.5	After heavy bloom and set of pods.
Peppers, eggplants	1.25	0.5	2.5	After first fruit sets.
Potato	2	1	4	When plants are 4—6 inches tall.
Spinach, kale, mustard and turnip greens	1.5	0.75	3	When plants are about one-third grown.
Sweet com	1.5	0.75	3	When plants are 8 to 10 inches tall. One week after tassels appear.
Sweet potatoes, watermelons, herbs	None	None	None	Excessive amounts of nitrogen will reduce yields or lower quality, or both.
Carrots, beets, turnips, parsnips and lettuce	None	None	None	Side-dressings of nitrogen not needed if soil is fertilized well before planting.
Tomato	1.5	0.5	3	One to two weeks before first tomato ripens. Two weeks after picking first ripe tomato. One month later.



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Strawberry, June bearing	2.5	1	4	June at renovation
	3	1.5	5	Mid-August
Strawberry, ever bearing	2.5	1	4	Spring, as growth starts
	3	1.5	5	Early-August
Brambles	1.5	0.5	2	April, as growth starts
Blueberries, bush should produce 6-12 inches of seasonal growth.	0.4	0.2	0.75	April
	0.25	0.1	0.5	May
	0.25	0.1	0.5	June
	0.25	0.1	0.5	July
Grapes	0.4	0.2	0.75	Spring

Approximate Conversion

5 cups = 1 pound of Ammonium Sulfate

8 cups = 1 pound of Urea

9 cups = 1 pound of Blood Meal

*16 tablespoons = 1 cup

Fertilizer price varies from season to season. Urea is the lowest cost nitrogen fertilizer product. Ammonium sulfate is around 6 times more than Urea. Blood Meal is around 10 times more than Urea.

Look for nitrogen only fertilizer products at local garden centers, farmers cooperatives and other retail outlets.

Nitrogen Fertilizer	Estimated Cost per 100 foot row
Urea (46-0-0)	\$0.30
Ammonium Sulfate (21-0-0)	\$2.00
Blood Meal (12-0-0)	\$3.00

