

Calculating Fertilizer Needs

Brent Bean, Extension Agronomist Amarillo, TX
 Original Source: Richard Duble, Texas A&M Turfgrass Specialist

Conversion Table for Soil Nutrients

ppm nutrients in the top 6 inches of soil x 2 = lbs nutrient per acre. lbs/Ac/43.5 = lbs/1,000 ft²

ppm (top 6" of soil)	pounds per acre	pounds per 1,000 ft ²
5	10	.25
10	20	.5
20	40	1.0
30	60	1.4
50	100	2.3
100	200	4.6
200	400	9.2
300	600	13.8

Example: 10 x 2 = 20. 20/43.5 = 0.5 lbs/1000 ft²

Fertilizer Calculations

Nutrient	Pounds Nutrient Needed per 1,000 ft ² A	Percent Nutrient in Fert. B	Pounds Fertilizer Needed per 1,000 ft ² C (C = A/B x 100)	Pounds Fertilizer Needed for the Property D (D = C x No. of 1,000 ft ²)
Example: Nitrogen 20-10-5	1.4	20	7 = A/B x 100	Lawn = 3000 Ft ² 7 x 3 = 21 lbs
Nitrogen				
Phosphorus				
Potassium				
Iron				

Nutrient Sources

Nitrogen Sources

Urea	(45-0-0)
Sulfur Coated Urea	(32-0-0)
IBDM	(31-0-0)
Ureaform	(38-0-0)
Ammonium Sulfate	(21-0-0) + 24% S
Ammonium Nitrate	(33-0-0)
Potassium Nitrate	(13-0-45)
Milorganite	(6-4-0)

Phosphorus Sources

Triple Superphosphate	(0-46-0) + 12%Ca
Diammonium Phosphate	(18-46-0)
Milorganite	(6-4-0)

Potassium Sources

Muriate of Potash	(0-0-60)
Potassium Nitrate	(13-0-45)
Potassium Sulfate	(0-0-50) + 18% S
K-Mag	(0-0-22) + 22% S, 11% Mg

Sulfur Sources

Elemental Sulfur	99% S
Ammonium Thiosulfate	26% S (12% N)
Gypsum	16-18% S
Ferrous Sulfate	12% S (20% Fe)
K-Mag	22% S (22% K, 11% Mg)

Micronutrient Sources

Zinc Sulfate	36% Zn
Copper Sulfate	25% Cu
Ferrous Sulfate	20% Fe
Manganous Sulfate	25% Mn