604 Hwy 15 W
PO Box 510
Northwood, ND 58267
(701) 587-6010
northwoodlab@agvise.com

902 13th St N
PO Box 187
Benson, MN 56215
(320) 843-4109
bensonlab@agvise.com

Fertilizing lawns and gardens

Whether you grow 1,000-acres of corn and soybean or grow 1,000-square feet of lawn, soil testing is the first step in proper plant nutrition. A soil test tells you how much fertilizer is required to achieve optimum plant growth for your lawn or garden. Soil test results and fertilizer nutrient guidelines are reported as pounds per acre (lb/acre), but most lawns and gardens are much smaller than one acre. Please use the conversion table to calculate the correct fertilizer application rate.

		Common Fertilizer Materials					
Suggested Nutrient Guideline		Urea	Monoammonium phosphate (MAP)	Potash	Ammonium sulfate (AMS)	Elemental sulfur	Zinc sulfate (35% Zn)
		46-0-0	11-52-0	0-0-60	21-0-0-24S	0-0-0-90S	
lb/acre	lb/1000 sq. ft	---------- lb/1000 sq. ft ----------					
1	0.02						0.07
5	0.11				0.5	0.1	0.33
10	0.23	0.5	0.4	0.4	1.0	0.3	0.66
25	0.57	1.2	1.1	1.0	2.4	0.6	
50	1.15	2.5	2.2	1.9	4.8	1.3	
100	2.30	5.0	4.4	3.8			
150	3.44	7.5	6.6	5.7			
200	4.59	10.0	8.8	7.7			

Frequently Asked Questions (FAQ)

My garden is 25 feet by 8 feet. What is the area? How much fertilizer do I apply?

Multiply the garden dimensions to calculate garden area (25 ft x 8 ft = 200 square feet). Divide garden area by 1000 sq. ft (200 sq. ft/1000 sq. ft = 0.2). Multiply the 1000-square foot fertilizer rate by the fraction (10 lb fertilizer per 1000 sq. ft x 0.2 = 2 lb fertilizer).

The soil test says I require 100 lb nitrogen per acre. I bought 12-4-8 fertilizer at the garden store. How much do I need?

A fertilizer analysis of 12-4-8 contains 12% nitrogen. Following the table, the initial nutrient guideline requires 100 lb nitrogen per acre, which converts to 2.3 lb nitrogen per 1000 sq. ft. The next step calculates the nutrient guideline to the applied fertilizer rate. Since the product contains 12% nitrogen, divide the nutrient guideline (2.3 lb nitrogen per 1000 sq. ft) by 0.12 (12%). Thus, 2.3/0.12 = 19.2 lb fertilizer per 1000 sq. ft.