Fertilizer Rate Quick Reference

The one formula, the rate tables, and the product math you actually need

USDA ZONE 7B
Long Island Sandy Soil Rates

Product (lbs) = (Square Feet x Desired N Rate) / (Product N% x 10)

This is the only fertilizer formula you need. It tells you exactly how many pounds of product to put in your spreader.

EXAMPLE 1: FALL FEEDING, 5,000 SQ FT ZONE

Product: Scotts Turf Builder (32-0-4), N% = 32
Target: 0.75 lbs N per 1,000 sq ft
(5,000 x 0.75) / (32 x 10) = 3,750 / 320
= 11.7 lbs of product

EXAMPLE 2: SPRING FEEDING, 3,000 SQ FT ZONE

Product: Milorganite (6-4-0), N% = 6
Target: 0.50 lbs N per 1,000 sq ft
(3,000 x 0.50) / (6 x 10) = 1,500 / 60
= 25.0 lbs of product

Product Quick-Calc Table (lbs of product per 1,000 sq ft at common N rates)

PRODUCT	N-P-K	N%	@ 0.25 LBS N	@ 0.50 LBS N	@ 0.75 LBS N	@ 1.0 LBS N	RELEASE TYPE
Scotts Turf Builder	32-0-4	32	0.8	1.6	2.3	3.1	Slow
Lesco 24-0-11	24-0-11	24	1.0	2.1	3.1	4.2	50% slow
Carbon-X	7-0-0	7	3.6	7.1	10.7	14.3	85% slow
Milorganite	6-4-0	6	4.2	8.3	12.5	16.7	Organic slow
Urea	46-0-0	46	0.5	1.1	1.6	2.2	Quick (split!)
Ammonium Sulfate	21-0-0	21	1.2	2.4	3.6	4.8	Quick (acidifying)
JG Winter Survival	10-0-20	10	2.5	5.0	7.5	10.0	Slow (high K)
Starter Fertilizer	18-24-12	18	1.4	2.8	4.2	5.6	Mixed (for seed)

Red values: exceed 0.50 lbs quick-release N on sandy soil. Must use 2/3 + 1/3 split technique (apply 2/3 now, remaining 1/3 in 4-6 weeks). All values rounded to 0.1 lbs.

Why combo products (weed-and-feed, triple action) are a problem: The N rate dictates how much product you apply. That locks in the herbicide rate, the P rate, and the K rate. You lose independent control of every ingredient. Product lbs = (Sq Ft x N Rate) / (N% x 10). If the N rate puts down too much or too little herbicide, you can't adjust either one without changing both.

One Formula	0.50 max	60%+ SRN	1.0 max	Split at 1.0+
SQ FT X RATE / N% X 10	QUICK-RELEASE ON SAND	SLOW-RELEASE MIN	N PER APPLICATION	2/3 + 1/3 TECHNIQUE

Product rates calculated from manufacturer N-P-K analysis. Always verify bag label matches.
Get exact spreader settings at bladebosshq.com/lawn-tools/

BLADE BOSS

Annual N Rates + Sandy Soil Guardrails

How much nitrogen per year by grass type, plus the rules for LI sand

Annual Nitrogen Rates by Grass Type (lbs N per 1,000 sq ft per year)

GRASS TYPE	LOW	MODERATE	HIGH	NOTES FOR LONG ISLAND
Kentucky Bluegrass	2.0	3.0	4.0	Most LI lawns. Moderate = 5-round schedule (2.75 actual). Needs irrigation for high track.
Turf-Type Tall Fescue	2.0	2.5	3.0-3.5	Deep roots handle LI sand well. 4-round schedule at moderate. More drought-tolerant than KBG.
Perennial Ryegrass	2.0	3.0	4.0	Usually in blends with KBG. Fast germination, quick fill. Similar N needs to KBG.
Fine Fescue	1.0	1.5	2.0	Shade specialist. Less is more. 3-round schedule. Excess N causes thatch and disease.
KBG/PRG/FF Blend	2.0	3.0	3.5	Common LI mix. Feed to the dominant species. If mostly KBG, use KBG schedule.

Green highlighted = recommended starting point for most LI homeowners. Start at moderate, observe for one full season, then adjust up or down based on results. Moving to "high" requires irrigation and a soil test showing adequate P and K.

Sandy Soil Guardrails

Max N per application (total)	1.0 lbs/1K
Max quick-release N per app	0.50 lbs/1K
Slow-release minimum	60%+ at 0.50+ lbs N
Split trigger	1.0 lbs N/1K
Split spacing	4-6 weeks
Max K2O per app (sand)	0.50 lbs/1K
K correction multiplier	3-5x (CEC-based)

LI glacial outwash sand has low CEC (under 5 for deep sands, up to 12 for maintained lawns). Low CEC = low nutrient-holding capacity. Nutrients leach through sand faster than grass can absorb them. Every rate on this sheet accounts for that.

Legal Limits (Not Guidelines)

Suffolk blackout	Nov 1 to Apr 1
Nassau blackout	Nov 15 to Apr 1
NYS statewide fallback	Dec 1 to Apr 1
Phosphorus	Soil test req'd (NYS)
Water body setback	20 ft (no fertilizer)
Suffolk fine	$1,000/violation

Suffolk = Local Law No. 41-2007. Nassau = Local Law 11-2009. NYS = ECL 17-2103. NEIWPCC guidelines (max 3.2 lbs N/yr normal areas, 2.0 lbs sensitive) are voluntary recommendations, not law.

The 2/3 + 1/3 Split Application Technique

When your target rate hits 1.0 lbs N or more per 1,000 sq ft (or 0.50+ lbs quick-release on sand), split it:

First pass	Apply 2/3 of product
Wait	4-6 weeks
Second pass	Apply remaining 1/3

SPLIT EXAMPLE

Target: 0.75 lbs N on a sandy zone
Product: Lesco 24-0-11 = 3.1 lbs per 1K
First pass: 2.1 lbs per 1K (0.50 lbs N)
Wait 4-6 weeks
Second pass: 1.0 lbs per 1K (0.25 lbs N)

Same total N, zero leaching risk