Turfgrass Nitrogen and Phosphorus Recommendations

(adapted from Soil Test Interpretations and Fertilizer Management for Lawns, Turf, Gardens, and Landscape Plants, University of Minnesota, 2008)

Nitrogen is based mostly on soil properties (N supplying ability), management and grass species not soil nitrate.

Phosphorus on turfgrass (maximum annual application)

Imperial Units

Nitrogen on turfgrass annual application (lb N/1000 ft²)

	soil organic matter level[z]		
	low	medium to high	organic soil (peat)
irrigated			
clippings removed	4.0	3.0	2.0
clippings not removed	3.0	2.0	1.0
not irrigated			
clippings removed	2.0	1.0	0.5
clippings not removed	1.0	0.5	0.25

[z] low organic matter is < 3.1% ; medium to high is 3.1 to 19%; organic soil is >19%

Olsen-P (ppm)	amount of phosphate to apply **lbs P_2O_5 / 1000 sq.ft.**
established turf	
0-7	1
8-18	0.5
over 18	0
new turfgrass planting (includes over seeding)	
0-7	5
8-18	2
over 18	1

Metric Units

Nitrogen on turfgrass annual application (kg N/100 m²)

	soil organic matter level[z]		
	low	medium to high	organic soil (peat)
irrigated			
clippings removed	1.96	1.47	0.98
clippings not removed	1.47	0.98	0.49
not irrigated			
clippings removed	0.98	0.49	0.25
clippings not removed	0.49	0.25	0.12

[z] low organic matter is < 3.1% ; medium to high is 3.1 to 19%; organic soil is >19%

Olsen-P (ppm)	amount of phosphate to apply **kg P_2O_5 / 100 m²**
established turf	
0-7	0.49
8-18	0.25
over 18	0
new turfgrass planting (includes over seeding)	
0-7	2.45
8-18	0.98
over 18	0.49