

AgroLab, Inc.
Soil Fertility for Lawns & Gardens Quick Reference Guide

The following information is provided to better assist AgroLab customers in the interpretation of the analytical data.

Buffer pH Liming Table

In general, one should consider lime if pH is below 6.0. Lime recommendations provided by AgroLab are based on the amount of typical Lime (65% ECCE) needed to change the current pH to 6.5. Single applications should not exceed 50 lbs per 1,000 sq. ft.

Soil Buffer pH	Target Soil pH				
	5.2	5.8	6.2	6.5	6.8
6.9					
6.8					
6.7					
6.6					
6.5					
6.4					
6.3					

Gray area: Consider lime amendment



Quick Reference:

Approximate % Sufficiency is defined as the plant's potential growth and yield. A sufficiency of 80% (low rating) means the plant growth/yield will be 80% of its potential, if nutrients are not applied.

<i>AgroLab Mehlich 3 Soil Test P ppm</i>	<i>Approximate % Sufficiency</i>	<i>Sufficiency Levels</i>
0-25	25-50	Deficient
26-50	51-89	Low
51-100	90-99	Sufficient
100+	100	High
<i>AgroLab Mehlich 3 Soil Test K ppm</i>	<i>Approximate % Sufficiency</i>	<i>Sufficiency Levels</i>
0-46	25-50	Low
47-91	51-89	Medium
92-182	90-99	Optimum
183+	100	Excessive
<i>Note: based on Delmarva soils (OM: 1-5%)</i>		
<i>AgroLab Mehlich 3 Soil Test Ca ppm</i>	<i>Approximate % Sufficiency</i>	<i>Sufficiency Levels</i>
0-250	25-50	Low
256-500	51-89	Medium
501-1,000	90-99	Optimum
1,000+	100	Excessive
<i>AgroLab Mehlich 3 Soil Test Mg ppm</i>	<i>Approximate % Sufficiency</i>	<i>Sufficiency Levels</i>
0-33	25-50	Low
34-66	51-89	Medium
67-131	90-99	Optimum
131+	100	Excessive

Common conversions for turf, golf course, garden and yard applications:

Rate/Acre **Rate/1000 sq. ft.** **Rate/100 sq. ft.**

1 lb.	2.5 tsps.	1/4 tsp.
3 lbs.	2.25 tbsps.	3/4 tsp.
4 lbs.	3 tbsps.	1 tsp.
5 lbs.	4 tbsps.	1 1/4 tsps.
10 lbs.	.25 lbs, or 1/2 cup	2 tsps.
50 lbs.	1.15 lbs.	.25 lb.
100 lbs	2.25 lbs.	.25 lb.
200 lbs.	4.5 lbs.	1/2 lb.
300 lbs.	6.75 lbs.	3/4 lb.



General Fertilizer Tips

- AgroLab fertilizer recommendations are based on the annual demand and provide as N - P₂O₅ - K₂O. Fertilizer values are also expressed in N - P₂O₅ - K₂O. 100 lbs of 18-0-10 represents 18 lbs N, 0 lbs P₂O₅ and 10 lbs of K₂O.
- Good fertilizer practices will promote healthy plant growth and reduce nutrient runoff.
- For a single annual fertilizer application in the fall (Sept.-Oct.), nitrogen should not exceed 1 lb per 1,000 square feet unless the fertilizer is a controlled release fertilizer.
- For soil phosphorus with a test level of sufficient or greater, do not apply phosphorus; for low or deficient levels, do not apply more than 1 lb of P₂O₅ per 1,000 sq. ft. per year.
- For multiple fertilizer applications, “spoon” feeding the nitrogen is best when applied in the fall and spring. Summer applications should be avoided unless irrigation is in place.
- Phosphorus, Potassium and Lime in general should be applied in the early fall (Sept.-Oct.).
- Avoid plant stress: Stress is commonly seen and caused by under fertilization, over fertilization, weed pressure, compaction, cutting lawns too short, overwatering, removing clippings and disease pressure.