

Fertilizer Rates for Lawns and Landscapes

Turfgrass Fertilization:

Proper Application Rates for Specific Fertilizer Products

Area (sq ft)	% Nitrogen in Fertilizer Bag						
	6%	10%	12%	15%	16%	23%	27%
10	1.3 oz 3 TB	0.8 oz 1 ½ TB	0.7 oz 1 ½ TB	0.5 oz 3 ½ tsp	0.5 oz 1 TB	0.4 oz 2 ½ tsp	0.3 oz 2 ¼ tsp
50	6.6 oz 14 TB	4 oz ½ c.	3.3 oz 7 TB	2.7 oz 6 TB	2.5 oz 5 ¼ TB	1.7 oz 4 ½ TB	1.5 oz ¼ c.
100	13.3 oz 1 ¾ c.	8 oz 1 c.	6.7 oz 14 TB	5.3 oz ¾ c.	5 oz 10 ½ TB	3.5 oz 9 TB	3 oz ½ c.
1000	8.4 lbs 17 ½ c.	5 lbs 9 ½ c.	4.2 lbs 8 ¾ c.	3.3 lbs 7 ¼ c.	3.1 lbs 6 ½ c.	2.2 lbs 5 ½ c.	1.9 lbs 4 ¾ c.
1500	13 lbs 26 ¼ c.	7.5 lbs 14 ¼ c.	6.5 lbs 13 c.	4.9 lbs 11 c.	4.8 lbs 9 ¾ c.	3.3 lbs 8 ¼ c.	2.9 lbs 7 ¼ c.
3000	25.2 lbs 52 ¼ c.	15 lbs 28 ½ c.	12.6 lbs 26 c.	9.8 lbs 21 ¾ c.	9.4 lbs 19 ½ c.	6.6 lbs 16 ½ c.	5.8 lbs 14 ½ c.
5000	42 lbs 87 ¼ c.	25 lbs 47 ½ c.	21 lbs 43 ½ c.	16.4 lbs 36 ½ c.	15.8 lbs 32 ½ c.	11 lbs 27 ½ c.	9.8 lbs 24 ½ c.

This chart explains the approximate weight of fertilizer to use for a given lawn area in pounds (first number) and also in cups (second number) to deliver ½ lb N / 1000 sq ft (the recommended rate for a single application of soluble or quick release fertilizer). If applying a fertilizer product that has at least 50% slow-release nitrogen, these rates can be doubled to deliver 1 lb N / 1000 sq ft.

Landscape Plant Fertilization: Proper Application Rates for Specific Fertilizer Products

Area (sq ft)	% Nitrogen in Fertilizer								
	6%	8%	10%	12%	14%	15%	16%	18%	20%
1	0.15 oz 1 tsp	0.1 oz ½ tsp	0.1 oz ½ tsp	0.1 oz ½ tsp	< 0.1 oz ¼ tsp	< 0.1 oz ¼ tsp	< 0.1 oz ¼ tsp	< 0.1 oz ¼ tsp	< 0.1 oz ¼ tsp
5	0.7 oz 1 ½ TB	0.5 oz 1 TB	0.4 oz 2 ½ tsp	0.3 oz 2 ¼ tsp	0.3 oz 2 ¼ tsp	0.25 oz 2 ¼ tsp	0.25 oz 2 ¼ tsp	0.25 oz 2 ¼ tsp	0.2 oz 2 ¼ tsp
10	1.3 oz 3 TB	1 oz 2 TB	0.8 oz 1 ½ TB	0.7 oz 1 ½ TB	0.6 oz 1 TB	0.5 oz 1 TB	0.5 oz 1 TB	0.5 oz 1 TB	0.4 oz 2 ¼ tsp
20	2.6 oz 6 TB	2 oz 4 TB	1.6 oz 3 TB	1.4 oz 3 TB	1.2 oz 2 ¼ TB	1 oz 2 TB	1 oz 2 TB	1 oz 2 TB	0.8 oz 1 ½ TB
30	3.9 oz 9 TB	3 oz 6 TB	2.4 oz 4.5 TB	2.1 oz 4.5 TB	1.8 oz 3 TB	1.5 oz 3 TB	1.5 oz 3 TB	1.5 oz 3 TB	1.2 oz 2 ¼ TB
50	6.7 oz 14 TB	5 oz 10 ½ TB	4 oz ½ c.	3.4 oz 7 TB	2.9 oz 5 ¾ TB	2.7 oz 6 TB	2.5 oz 5 ¼ TB	2.2 oz 4 ½ TB	2 oz ¼ c.
100	13.3 oz 1 ¾ c.	10 oz 1 ¼ c.	8 oz 1 c.	6.7 oz 14 TB	5.7 oz 11 ½ TB	5.3 oz ¾ c.	5 oz 10 ½ TB	4.4 oz 9 TB	4 oz ½ c.

This chart explains the approximate weight of fertilizer to use for a given landscape bed area in pounds (first number) and also in cups (second number) to deliver ½ lb N / 1000 sq ft (the recommended rate for a single application of soluble or quick release fertilizer). If applying a fertilizer product that has at least 50% slow-release nitrogen, these rates can be doubled to deliver 1 lb N / 1000 sq ft.

If fertilization of landscape plants is justified, always use the least amount of fertilizer possible that will still achieve the desired results. If possible, use the most basic level of maintenance (see chart below) each time you fertilize. In certain cases, such as fertilization of fruit trees, a higher level of maintenance may be required. For specific information on fertilizing fruit trees and other landscape plants, or for help diagnosing nutrient deficiencies, please contact your local county extension office.

Fertilization may *not* be required:

- If you are pleased with the appearance of the plants.
- If plants are established.
- If plants are flowering or fruiting.
- For trees, unless nutrient deficiencies exist.
- For plants exhibiting nutrient deficiency symptoms that are not suited for the site due to soil pH, soil drainage, etc.

Fertilization *may* be justified:

- If trees and shrubs are newly planted (fertilize until established).
- To increase shoot growth, root growth, flowering or fruiting.
- To enhance foliage color and plant appearance.
- If landscape beds have been leached of nutrients due to flooding.
- If trees and shrubs are not located near fertilized turfgrass.
- To correct or prevent nutrient deficiencies.

Fertilization Guidelines for Established Landscape Plants:

Level of Maintenance	Amount of Nitrogen (N) Fertilizer	Number of Applications per Year Using <i>Quick Release</i> Fertilizer	Number of Applications per Year Using <i>Slow Release</i> Fertilizer
Basic (Low)	0-2 lbs N/1000 ft ² /year	0-4	1-2
Moderate	2-4 lbs N/1000 ft ² /year	4-8	2-4
High	4-6 lbs N/1000 ft ² /year	8-12	4-6

This chart shows the amount of nitrogen fertilizer in pounds that may be applied per year based on the desired (or required) level of maintenance. It also shows the number of applications that can be made per year when fertilizing with a quick release or soluble nitrogen product vs. a slow release nitrogen product.

Palm Fertilization

Palms have different nutritional requirements than other landscape plants.

- Fertilize areas within 30 ft of large established palms with a 4-1-6-2 Mg (N-P-K-Mg) ratio fertilizer. An example of this is an 8-2-12-4 Mg fertilizer. In other words, it contains 8% nitrogen (N), 2% phosphorus (P), 12% potassium (K), and 4% magnesium (Mg).
- Nitrogen (N), potassium (K), and magnesium (Mg) should have equivalent percentages of each nutrient in controlled-release form.
- When these nutrients are not slowly released at the same rate, or an improper ratio of nutrients is used, you could actually cause new nutrient deficiencies to form or intensify current nutrient deficiencies.
- Because palms are highly prone to several potentially fatal micronutrient deficiencies, palm fertilizer must contain 1-2% iron (Fe) and manganese (Mn), plus trace amounts of zinc (Zn), copper (Cu), and boron (B).
- Base fertilization rates for palms on the fertilizer guidelines for established landscape plants chart on page 3.

Where & How to Fertilize

Fertilizer should be broadcast uniformly over the desired areas of the landscape, taking into consideration the plant species, root location, and fertilization objectives.

Water-soluble fertilizers should be applied at no more than ½ pound of actual nitrogen per 1000 square feet per application.

Areas where landscape plant fertilization zones overlap with lawn fertilization zones should be fertilized for one or the other of the plant types, but not both.

For lawns, never broadcast fertilizer by hand, always use a drop or rotary spreader.

