

# Caring for Your Lawn and the Environment

Reduce runoff and trap pollutants with a healthy yard! Use care when gardening to protect streams, rivers, lakes, estuaries, and coastal waters.

## Fertilizer Facts

Fertilizer labels always display three numbers in the same order, (i.e., 10-6-4). These numbers represent the percent by weight of three important nutrients:

- Nitrogen (N) — for green, leafy growth.
- Phosphorus (P) — for root and bud growth.
- Potassium (K) — promotes disease tolerance and drought tolerance.

Example: A 40-pound bag of 10-6-4 fertilizer is: 10 percent nitrogen (4 lb of N), 6 percent phosphate (2.4 lb of P), and 4 percent potash (1.6 lb of K)

## Fertilizer Rates

A typical lawn feeding is 1 pound of nitrogen per 1,000 square feet.

Here are some common lawn fertilizer formulations and the amount of each needed for 1 pound of nitrogen:

Fertilizer bag reads:	Amount needed for 1 lb of nitrogen*:
6-2-0	17 lb
10-10-10	10 lb
14-3-6	7 lb
20-5-5	5 lb
26-3-4	4 lb
35-3-5	3 lb

\*Rounded to nearest pound

For other formulations, follow this example using a fertilizer labeled 24-6-6:

- The first number is the percent of nitrogen — 24%
- To find out how much total product it takes to apply 1 pound of nitrogen, divide the 1 pound by .24
- $1 \div .24 = 4.17$   
This is equal to a little more than 4 pounds of product.
- If your lawn is 5,000 square feet, multiply 4 pounds by 5. The result is 20. You would need a 20-pound bag of 24-6-6 to cover your lawn.

## Nitrogen Fertilizer Guide for Lawns

Lawns need some nitrogen each year to remain dense and healthy. Many lawns will do fine with only 1 or 2 pounds of nitrogen per 1,000 square feet each year. This chart shows when and how much fertilizer to apply to your lawn, depending on the kind of grass you have.

Turf	Monthly application rate <sup>a</sup>												lb nitrogen/ 1,000 sq ft/yr
	J	F	M	A	M	J	J	A <sup>b</sup>	S	O	N	D	
Bahiagrass					½		½						1
Bermudagrass					1	1	1	1					4.0
Centipedegrass <sup>c</sup>						½							½
Fescue, tall	½ to 1								1		1		2.5 to 3
Kentucky bluegrass	½ to 1								1		1		2.5 to 3
Kentucky bluegrass/ fine fescue	½ to 1								1		1		2.5 to 3
Kentucky bluegrass/ tall fescue	½ to 1										1		2.5 to 3
Kentucky bluegrass/ tall fescue/fine fescue	½ to 1										1		2.5 to 3
Kentucky bluegrass/ perennial ryegrass	½ to 1								1		1		2.5 to 3
St. Augustinegrass						½	½	1	½				2.5
Zoysiagrass					½		½		½				1.5

## Control Erosion

In North Carolina, sediment is our biggest water quality problem.

- Well-managed lawns control soil erosion.
- Bare spots in lawns should be reseeded or sodded.
- Exposed soil in garden areas or natural areas should be covered with some type of mulch, such as straw, grass clippings, pine straw, pine bark, or leaf litter, especially during winter and just after tillage.



## Watering

- In dry spells, allow an established lawn to go dormant, but water every 4–6 weeks.
- If you want a nondormant lawn, then water when grass looks blue-gray and you leave footprints on it.
- Water in the early morning to water to discourage disease and increase watering efficiency.
- Water slowly; wet the soil to a depth of 4 to 6 inches.
- Avoid water runoff from the lawn.
- Avoid light, frequent watering.

## Lawn Fertilizer

Excess nutrients can damage the waters of North Carolina. Make sure you apply only the fertilizer you need.

- Test your soil first! Get a soil test kit the Cooperative Extension Service Center in your county. The kit includes instructions. The soil test is provided free of charge by the North Carolina Department of Agriculture.
- Your soil test results will tell you how much phosphorus, potassium, and lime that you need. Depending on the history of your soil, you may not even need to apply these nutrients!
- The chart on the front of this fact sheet will help you determine the amount of nitrogen you need for the type of grass you are growing and the time of application.

## Mowing Guide

The proper mowing height and sharp mower blades reduce weed competition and promote healthy grass growth.

Turf	Desired height
Centipedegrass	¾ — 1
Tall fescue	2½ — 3½
Perennial ryegrass	1½ — 2½
Kentucky bluegrass	1½ — 2½
Fine fescue	1½ — 2½
Bermudagrass	¾ — 1
Zoysiagrass	¾ — 1½



## Urban and Suburban Lawns

Keep fertilizer off paved surfaces! Water that moves into storm drains dumps directly into streams. Fertilizers, oil, and weed-, insect-, and fungus-killers can all move into our waters through the storm drain system.

- If fertilizer lands on cement, gutters, or any other hard surface, be sure to blow or sweep it up immediately. Do not blow or sweep soil and materials into the storm drain.
- Fill or empty spreaders on your grass, garden, or natural areas. This keeps the fertilizer off hard surfaces.
- Do not apply fertilizer to frozen ground or dormant turf.
- Do not use fertilizer as a de-icer.

**Have a lawn or garden question? Contact the Cooperative Extension Service Center in your county or use the Web:**  
<http://www.ces.ncsu.edu/TurfFiles/home.html>

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