

# 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). They represent the % 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 lb. bag of 10-6-4 fertilizer has: 10% nitrogen (4 lbs.), 6% phosphate (2.4 lbs. of P), and 4% potash (1.6 lbs. of K)

## Fertilizer Rates

A typical lawn feeding is 1 lb. of nitrogen per 1000 square feet.

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

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

\*Rounded to nearest pound

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

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

## Nitrogen Fertilizer Guide for Lawns

- This chart shows when and how much fertilizer to apply to your lawn, depending on the kind of grass you have.
- Lawns need some nitrogen each year to remain dense and healthy. Many lawns will do fine with only 1 or 2 lbs. of nitrogen per 1000 square feet each year.

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		1		2.5 to 3
Kentucky bluegrass/ tall fescue/fine fescue	½ to 1								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

<sup>a</sup> Dates suggested are for the central piedmont. For the west, dates may be 1 to 2 weeks later in the spring and earlier in the fall; for the east, 1 to 2 weeks earlier in the spring and later in the fall.

<sup>b</sup> In the absence of soil test recommendations, apply about 1 lb of potassium per 1,000 sq ft, using 1.6 lb of muriate of potash (0-0-60), 5 lb of potassium-magnesium sulfate (0-0-22), or 2 lb of potassium sulfate (0-0-50) to bermudagrass, centipedegrass, St. Augustinegrass, and zoysiagrass.

<sup>c</sup> Centipedegrass should be fertilized very lightly after establishment. An additional fertilization in August may enhance centipedegrass performance in coastal locations. Avoid using any phosphorus on centipedegrass after establishment.

Have a lawn or garden question? Contact the Master Gardeners at your local County Cooperative Extension Service office.

## 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.
- **Early morning** is the best time to water to discourage disease and increase watering efficiency.
- Water slowly; wet the soil to a depth of 4–6 inches.
- Avoid water runoff from the lawn.
- **Avoid light, frequent watering.**

## Lawn Fertilizer

Excess nutrients damage the waters of North Carolina. Follow these tips to make sure you apply only the fertilizer you need.

- **Test your soil first!** Order your soil test kit by calling your local County Cooperative Extension Service. You will be sent instructions on how to take your soil test. The soil test is provided free of charge by the North Carolina Department of Agriculture.
- Use your soil test results. 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!
- Use the chart. The chart provided 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.
- **Recycle your grass!** You can reduce the amount of nitrogen you add to your lawn by 1/3 if you recycle your grass clippings.

## Mowing Guide

The proper mowing height reduces weed competition and promotes healthy grass growth.

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

- ✓ **Grasscycle!** Leave grass clippings on the lawn. They return nutrients to your lawn and reduce the need for additional fertilizer.
- ✓ Keep mower blades sharp.



## Urban and Suburban Lawns

Cement, gutters, and storm drains! 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.

- Keep fertilizer off paved surfaces! If fertilizer lands on hard surfaces, be sure to blow or sweep it up immediately.
- 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.
- **Do not** blow or sweep soil and materials into the storm drain.

**Have a lawn or garden question? Contact the Master Gardeners at your local County Cooperative Extension Service office or use the Web:**  
<http://www.ces.ncsu.edu/TurfFiles/home.html>