

Fertilizing 101

Southwest Florida
Water Management District

WaterMatters.org/Fertilizing101

A Guide to Fertilizing and Water Protection



The background features a series of horizontal, wavy bands in various shades of light blue and cyan, creating a water-like effect. Below this, the image transitions into a bright, hazy green field, possibly a lawn or meadow, with a dark tree trunk visible on the left side. The overall lighting is bright and natural, suggesting a sunny day.

***Fertilize Smart,
Protect Our Waterways.***

Fertilize Your Lawn Correctly and Help Protect Our Water

When fertilizer is applied correctly, the grass will use all the nutrients. If applied incorrectly, nutrients can leach into our groundwater or wash off the land and into lakes, rivers and springs. Once in our water bodies, nutrients from fertilizer may cause algae to grow. Algae can form large blooms that shade out beneficial aquatic plants and cause oxygen levels to lower, which stress fish and other aquatic animals.

This Fertilizing 101 guide will teach you how to help protect water quality and have a healthy lawn by following fertilizing guidelines.


Why Fertilize Your Lawn?

Fertilizers are designed to make your lawn green, healthy and more stress-tolerant. In some cases, fertilizer is necessary because your soil cannot supply the grass with all the nutrients it needs to stay healthy and green over the years. When needed, fertilizer should be applied according to the University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS) and the Florida Department of Environmental Protection (FDEP) guidelines, as well as local fertilizer restrictions. If applied correctly, fertilizer can help your lawn stay healthy by:

- Increasing leaf and root growth
- Aiding in the recovery from pest damage and environmental stresses
- Reducing and controlling weeds
- Replacing nutrients lost to plant growth and leaching

▶ ADDITIONAL TIP

If your landscape is healthy and its appearance is pleasing, you may not need to fertilize the entire site, only problem areas. You can take samples of problem areas to your local UF/IFAS Extension office to check for pests and pH deficiencies.



How to Fertilize Correctly

▶ STEP 1 Getting Ready to Fertilize

Conduct a soil test to know what your soil needs before you fertilize. The results of the soil test can help you determine what type of fertilizer to buy and how much to apply.

Many Florida soils are naturally high in phosphorus, one of three major nutrients in fertilizer. If your soil test shows an adequate level of phosphorus, choose a fertilizer blend that does not contain it. Your soil test will also tell you about your soil's pH (acidity or alkalinity) levels and other nutrient levels. You can get information on obtaining a soil test from your county UF/IFAS Extension office.

Additionally, if your household irrigates with reclaimed water, you may not need to fertilize as much. Reclaimed water has nutrients such as nitrogen and phosphorus, which are also in fertilizer. Check with your utility for more information about the amount of nutrients in your reclaimed water.



Know When to Apply Fertilizer

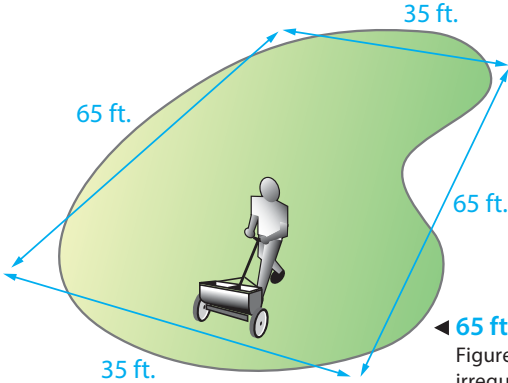
To prevent fertilizer from washing into water bodies, it's important to know the right time to fertilize. Follow these tips before fertilizing:

- Check with your local government or visit **[WaterMatters.org/Fertilizing101](https://www.water-matters.org/)** to learn about any mandatory fertilizer restrictions in your area before you begin.
- Fertilize only when the grass is actively growing to avoid waste and harm to local water bodies. During winter months, grass is dormant in many areas of Florida; therefore, fertilizer is not necessary. Fertilizer applied when grass is not growing is not beneficially used by the grass. Instead, it will leach through the soil or run off and pollute nearby water bodies.
- April and May are typically good months to fertilize if you chose to fertilize.
- Check to see if problem areas are caused by pests, soil or environmental issues, such as excess shade or the uneven distribution of irrigation water. Fertilizer may not help to address these problems.
- Check the weather forecast. Do not fertilize if rain is predicted in the next 24–36 hours or when a heavy rain, tropical storm, hurricane or flood is predicted.



▶ STEP 2 Determining How Much to Buy

Decide how much you need before you make a purchase. Don't guess! Measure your property and calculate the total square footage of turfgrass. Do not include landscape plants in the area to be fertilized.

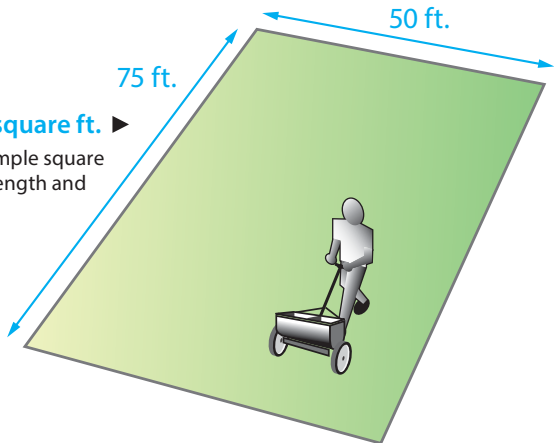


◀ **65 ft. x 35 ft. = 2,275 square ft.**

Figure 1 – If the lawn is made up of irregular-shaped areas, approximate a square or rectangular shape and use these measurements for the calculation.

75 ft. x 50 ft. = 3,750 square ft. ▶

Figure 2 – If the lawn is a simple square or rectangle, multiply the length and width (in feet).

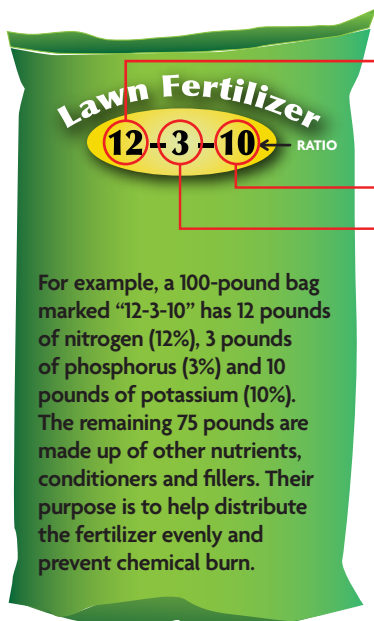


▶ STEP 3 Selecting Fertilizer

All fertilizer labels have three bold numbers. The first number on the label represents nitrogen, the second number represents phosphorus, and the third number represents potassium. These are the three major nutrients your lawn needs to thrive.

In general, select a fertilizer where the first and third numbers on the label are equal or in a 2:1 ratio and the middle number is zero or as low as possible.

Look for a fertilizer where the ratio of nitrogen to phosphorus (the first to second number) is a minimum of 4 to 1. For example, a 12-3-10 and a 15-0-15 fertilizer would follow this recommendation.



● NITROGEN

(symbol N)
for shoot growth
and green color.

● PHOSPHORUS

(symbol P)
for root growth and
cellular functioning.

● POTASSIUM

(symbol K)
sometimes called potash,
for root development,
improved stress tolerance
and disease resistance.



Choose Slow- or Controlled-Release Fertilizer:

Most home lawn fertilizers contain some slow- or controlled-release nitrogen. It takes longer for your yard to benefit from slow- or controlled-release nitrogen, but the effects will last longer. Many of these fertilizers provide fertilization for 60 days or longer, depending on environmental conditions. As a result, fewer nutrients may be wasted or lost as pollutants.



To find a slow- or controlled-release fertilizer, look for these terms on the product or fertilizer tag for nitrogen:

- Timed-release, slow-release or controlled-release
- Water insoluble nitrogen
- Isobutylidene diurea (IBDU)
- Ureaform (UF)
- Nitroform
- Sulfur-, polymer-, plastic- or resin-coated urea

▶ ADDITIONAL TIPS

- Do not use weed and feed products. They may harm landscape plants if roots extend into the lawn area.
- Consider applying a soluble or chelated iron source to green the lawn without increasing growth in the summer.
- Avoid liquid and soluble nitrogen fertilizer. These products should be used only by professional turfgrass managers.



▶ STEP 4 Applying Fertilizer

When applying fertilizer, the most important thing to remember is to read and follow the instructions on the fertilizer bag. Proper application will ensure maximum coverage, resulting in a healthy lawn while protecting water bodies.

Calculate Application Rates

To determine the correct amount of fertilizer per 1,000 square feet, divide 100 by the percentage of nitrogen in the bag. For example, a fertilizer with a 15-0-15 label contains 15% nitrogen, 0% phosphorus and 15% potassium. Divide 100 by 15 to get 6.6; this is the number of pounds of slow-release fertilizer needed to apply one pound of nitrogen per 1,000 square feet. This works for any fertilizer product or amount of nitrogen.

Nitrogen application rates vary according to type of turf and location in the state.

Apply Using a Spreader

- Overlap your spread pattern by applying half the fertilizer in one direction and the rest in the opposite direction. This will ensure an even application.
- Turn off the spreader before stopping and when making turns. Then, turn it back on after you have resumed walking. Shut off the spreader when passing over pavement.
- Use a deflection shield when using a spreader near sidewalks, driveways and water bodies. This will avoid spreading fertilizer granules onto impervious surfaces or into water bodies.
- Clean spreader on the lawn, not on the sidewalk or driveway.
- Sweep up any fertilizer from sidewalk or driveways. Do not leave fertilizer on impervious surfaces when finished.



▶ ADDITIONAL **TIPS**

- Do not over-fertilize. Your grass will not gain extra benefits and the excess nutrients can pollute nearby water bodies.
- Be sure that any professional applying fertilizer has their Limited Urban Commercial Fertilizer Applicator Certificate issued by the Florida Department of Agriculture and Consumer Services. They are required to have it by Florida law.



▶ **STEP 5** Water-In Fertilizer

Water-in your fertilizer after application with no more than $\frac{1}{4}$ inch of water. This will put the nutrients at root level, where they can be taken up most efficiently. Watering-in with more water than $\frac{1}{4}$ inch can result in fertilizer leaching more rapidly through the soil.

▶ ADDITIONAL **TIP**

- Do not fertilize new turfgrass for 30-60 days after planting. You should allow the turfgrass to begin to establish roots before fertilizing.



Visit [WaterMatters.org/Fertilizing101](https://www.watermatters.org/fertilizing101)
for more information and helpful tips on fertilizing
your home's lawn and landscape.

County Resources

For more information on fertilizing in your area, contact your local Florida-Friendly Landscaping™ coordinator at your county's UF/IFAS Extension office.

Charlotte County

25550 Harbor View Road, Suite 3
Port Charlotte, FL 33980
(941) 764-4340

Citrus County

3650 West Sovereign Path, Suite 1
Lecanto, FL 34461
(352) 527-5700

Hernando County

21030 Cortez Blvd.
Brooksville, FL 34601
(352) 540-6230

Hillsborough County

5339 S. CR 579
Seffner, FL 33584-3334
(813) 744-5519

Levy County

625 N. Hathaway Avenue, Alt. 27
Bronson, FL 32621
(352) 486-5131

Manatee County

1303 17th Street West
Palmetto, FL 34221
(941) 722-4524

Marion County

2232 N.E. Jacksonville Road
Ocala, FL 34470-3615
(352) 671-8412

Pasco County

36702 SR 52
Dade City, FL 33525-5198
(727) 847-8177

Pinellas County

12520 Ulmerton Road
Largo, FL 33774-3695
(727) 582-2108

Polk County

P. O. Box 9005, Drawer HS03
1702 Hwy. 17-98 South
Bartow, FL 33831-9005
(863) 519-8677

Sarasota County

6700 Clark Road
Twin Lakes Park
Sarasota, FL 34241
(941) 861-5000

Sumter County

7620 SR 471, Suite 2
Bushnell, FL 33513-8716
(352) 793-2728



Southwest Florida Water Management District



WaterMatters.org

The Southwest Florida Water Management District (District) manages the water resources for all or part of 16 counties in west-central Florida. The goal of the District is to meet the water needs of current and future water users while protecting and preserving the water resources within its boundaries.

VISAY 02-25-2025

The Southwest Florida Water Management District (District) does not discriminate on the basis of disability. This nondiscrimination policy involves every aspect of the District's functions, including access to and participation in the District's programs, services and activities. Anyone requiring reasonable accommodation, or who would like information as to the existence and location of accessible services, activities, and facilities, as provided for in the Americans with Disabilities Act, should contact the Human Resources Office Chief, at 2379 Broad St., Brooksville, FL 34604-6899; telephone (352) 796-7211 or 1-800-423-1476 (FL only); or email ADACoordinator@WaterMatters.org. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1-800-955-8771 (TDD) or 1-800-955-8770 (Voice). If requested, appropriate auxiliary aids and services will be provided at any public meeting, forum, or event of the District. In the event of a complaint, please follow the grievance procedure located at WaterMatters.org/ADA.