

Lawn Fertilization

Jennifer Pelham, Urban Horticulture Agent
University of Florida/IFAS Extension in Osceola County

Every spring, one of the most popular questions in the Osceola County Master Gardener Plant Clinic is “What type of fertilizer do I use on my lawn.” The answer is not as easy as it sounds. Selecting the proper fertilizer and applying it appropriately is essential for the health of the lawn.

A regular fertilization schedule is crucial for growing a healthy, beautiful lawn. It is especially important in Florida because of the infertile sandy soils that encompass most of central Florida. Sandy soils cannot hold nutrients as well as the rich, organic soils that are found in other areas of the country. Not only is fertilization used to maintain good-quality lawns; it can also be used to improve poor-quality lawns. Of course, efficient mowing, watering, and pest control must be combined with proper fertilization to produce a healthy lawn.

A lawn fertilization schedule is easy to plan. Only three basic questions need to be answered: Which essential nutrients need to be supplied? What type of fertilizer should be used? How much fertilizer should be applied and how often? Fortunately for us, the University of Florida IFAS researchers have already determined an effective and efficient fertilization schedule.

In early spring, a complete fertilizer should be applied to the lawn. A complete fertilizer is one that has a formula made up of the three essential nutrients, nitrogen (N), phosphorus (P), and potassium (K). The three numbers on the fertilizer bag represent the percentages of these nutrients that contained in the bag

The fertilizer should be applied in multiple (2-5) applications yearly, depending on what variety of turfgrass you have and how much maintenance you desire. With each fertilizer application, $\frac{1}{2}$ to 1 lb. of N should be applied. It is highly recommended that 30-50% of the nitrogen in lawn fertilizer comes from a slow-release source. To find out how much of the common fertilizer types this relates to, go to <http://edis.ifas.ufl.edu/EP221>.

For example, a fertilizer with the analysis 15-2-15 and 30% slow-release nitrogen will often provide color and growth for 60 days or more. If using this type of product, you would only fertilize every 60-75 days at a rate of 1 pound of nitrogen per 1,000 square feet. These slow-release fertilizer sources are safer environmentally, since they are less likely to leach nitrogen into ground or surface water.

A 50-pound bag of 15-2-15 contains 15% nitrogen or 7.5 pounds total nitrogen. This bag will fertilize over 2,200 square feet at the rate of 1 pound of nitrogen per 1000 square feet at this rate. Higher fertilization rates are unnecessary and will no benefit your turf in any way. Always irrigate fertilizer in with $\frac{1}{4}$ inch of water- this will move the fertilizer from

the leaf blade to the root, where it will be taken up. Do not fertilize if rainstorms are forecast in the next 24 hours. A slow-release of nitrogen should be applied again at the same rate in late spring, with another complete fertilizer application in October.

If the lawn starts to turn yellow between fertilizer applications, it is most likely a sign that it needs iron. For iron deficiencies, spray ferrous sulfate (2 ounces in 3 to 5 gallons of water per 1000 square feet) or a chelated iron source (refer to the label for rates). Iron applications every 6 weeks will help maintain green color and, unlike nitrogen, will not promote excessive growth, decreasing the frequency the lawn needs to be mowed.

By following these fertilization schedules, you can produce a lush, green, healthy lawn. Research has shown that these schedules are effective. Some individuals insist on fertilizing more than recommended. Over fertilization can be detrimental to lawns.

Over fertilization causes lawns to push out new growth almost continuously. Continuous growth creates green lawns, but also creates weak growth that is highly susceptible to insects and diseases. For example, chinch bugs love new growth in St. Augustine lawns. Over fertilized lawns also need mowed and watered more frequently and excess fertilizer that is not consumed by the lawns is washed away into our waterways, causing unnecessary pollution.

Figuring out fertilizer can be tricky. For more information on lawn fertilization and care, please contact the Osceola County Master Gardeners. They are available to take your calls on Monday thru Friday from 10am to 2pm. Call (321) 697-3000 with all your plant questions. You may also email me at jenjen15@ufl.edu.