



Turfgrass Fertilization in Alachua County

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FERTILIZING APPROPRIATELY

Inappropriate applications of fertilizers, specifically nitrogen and phosphorous, contributes to water quality decline. Excess nutrients can enter our waterways by leaching through the soil and enter groundwater, washing away into storm drains, or directly entering a waterbody. The aggregation of these multiple sources of water pollution is classified as non-point source pollution. Non-point source pollution increases algae production within waterways and leads to declining oxygen availability and fish kills. Other implications associated with excess fertilizers include:

- Excessive plant growth of poor quality.
- Increased pest pressure.
- Underdeveloped plant roots.

As Florida continually grows, it is important for everyone homeowner, land manager, etc, to understand the importance of fertilizing responsibly, under the Florida-Friendly Landscaping™ Program's third principle "Fertilize Appropriately". The following document discusses fertilizing turfgrass appropriately in Alachua County under the county's updated fertilizer codes.

ALACHUA COUNTY'S FERTILIZING CODE

In April 2019, Alachua County's Board of County Commissioners amended the county's fertilizer code. Under the new code, no phosphorous can be applied within a landscape unless a soil test indicates a landscape is deficient. Nitrogen should be, at minimum, 50% slow release nitrogen. Additionally, Nitrogen cannot be applied during the following conditions:

- Between July 1 and February 28
- While soils are saturated
- Before a heavy rain
- The first 30 days after seeding or sodding a new landscape

A link to the complete code can be found in the Additional Resources section.

SELECTING FERTILIZER UNDER ALACHUA COUNTY CODE

A healthy, properly managed landscape has innumerable benefits, but is dependent on proper use of fertilizers, water, and pesticides. Appropriate use of fertilizers is dependent on fertilizer selection.



Fertilizer Selection

UF/IFAS recommends completing a [soil test](#) prior to fertilizing your landscape. It is important to only apply nutrients that your landscape requires. Additionally, avoid any “weed and feed” fertilizer products because the herbicide applications for turfgrass do not coincide with fertilizing timing recommendations. This leads to poor application timing of the herbicide or fertilizer. Additionally it may cause damage to surrounding trees or ornamental plants.

Reading the Label

Reading the fertilizer label can give you great insight regarding its content. The grade of a fertilizer refers to the three large numbers on the bag, (ie. 10-0-10, 20-5-10). The three large numbers stand for the percent of nitrogen (N), phosphorous (P₂O₂), and potassium (K₂O) within the bag. Commonly referred to as N-P-K, the three large numbers will vary in quantity, but will always be labeled the same way.

Selecting Slow-Release Fertilizer

Avoid nitrogen fertilizers labeled as quick-release, fact acting, or soluble. There are a number of brands and products available in stores offering slow-release or controlled-release nitrogen, but many of them are defined by the state’s 30% minimum requirement to be classified as a slow-release fertilizer. Therefore it is important to know how to read a fertilizer label. Determining slow release percentage is completed by dividing a label’s percent of slowly available nitrogen by the total amount of nitrogen in the bag (Fig 1). Although we are primarily concerned with slow-release nitrogen regarding the county code, some fertilizers could include slow-release forms of many different nutrients.

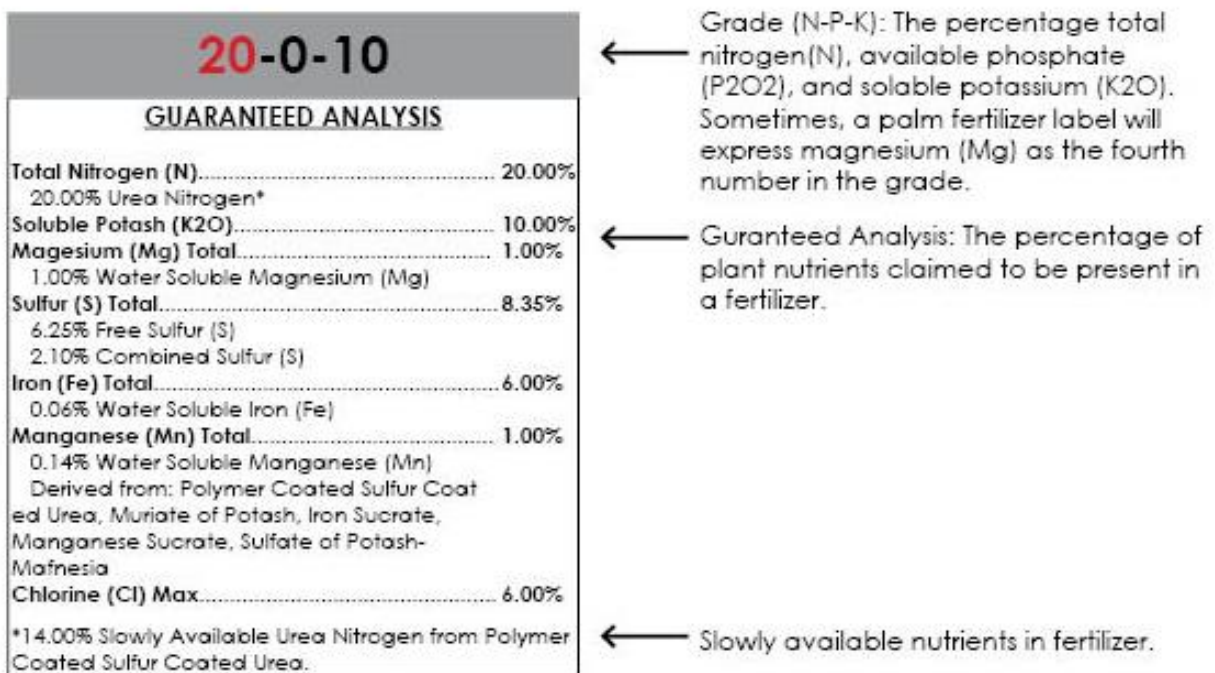


Figure 1: The following label example shows 20% total nitrogen within the bag, as indicated by the grade of the fertilizer (20-0-10). The bottom of the label shows a small asterisk, stating, “*14.00% Slowly Available Urea Nitrogen...” In this example, divide 14 (slowly available) by 20 (total available) to determine slow-release percentage, which is 70% in this example.



FERTILIZING TURFGRASS UNDER ALACHUA COUNTY'S FERTILIZER CODE

Fertilizing turfgrass appropriately is dependent on the type of turfgrass you are fertilizing, the level of maintenance desired, and application timing. The follow are important notes regarding fertilizing turfgrass in Alachua County.

Rates

Slow-release fertilizer should be applied at a rate of 1 lb of Nitrogen/1000 sqft. You should never apply more than this rate during any application. Excess nitrogen could lead to nutrient loss which degrades water quality. In most cases, applying less than the recommended rate will not provide adequate nutrients for the turfgrass stand.

Annual application rates are dependent on the type of turfgrass too (Table 1). The lower-limit on the recommendations is for basic maintenance requirements and the upper-limit is for high maintenance. Adhering to these rates, based on your turfgrass, should not lead to nitrogen leaching in your landscape.

Annual Nitrogen Recommendation Rates for North Florida, lbs/1000 sqft/per year.			
Bahiagrass	Centipedegrass	St. Augustinegrass	Zoysiagrass
1–3	0.4–2	2–4	2–3

Table 1: The annual pounds of nitrogen for select turfgrass species per 1000 sqft. Basic maintenance requirements for turfgrass is the lower limits of the recommendations and is recommended for individual homes.

Timing

Timing of fertilizer applications is critical. Apply fertilizers too early or too late lead to nutrient loss and poor turfgrass quality. In North Florida, fertilizers should not be applied to turfgrass until April 15th. This date is suggested because turfgrasses are out of their winter dormancy, so they are actively absorbing nutrients and the threat of freezes has passed. Applications prior to April 15th can lead to turfgrass damage on new growth from late freezes. Additionally, applying fertilizers before turfgrass exits winter dormancy leads to nitrogen loss and wasted money and time. UF research shows various turfgrass species nitrogen nutrient loss is greater in north central Florida from January through March.

A 50% slow-release fertilizer does not need a reapplication for a minimum of 60 days. A second application can be made in June, following the initial application in April. Two applications provide 2 lbs of nitrogen/1000 sqft/year under Alachua County's fertilizer code (Table 2).

Other nutrients such as potassium or iron can be applied outside of the March through June nitrogen application window. Many of our turfgrass species benefit from an iron (Fe) in July, which is acceptable under the current code.

Application Notes

It is important to calibrate your fertilizer spreader. Every spreader is different. Follow directions provided by manufacturer and calibrate frequently. Concluding fertilization, irrigate with ¼" of water. This will help move fertilizer granules stuck in grass blades to the ground.



Amended Fertilizer Schedule for Turfgrass in Alachua County

Turfgrass	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Bahia			-	N		N	Fe					
Centipede			-	N								
St Augustine			-	N		N	Fe					
Zoysiagrass			-	N		N						

Table 2: An amended fertilizer schedule adopted from EDIS Publication #SL21, “General Recommendations for Fertilization of Turfgrasses on Florida Soils” by T.W. Shaddox. Shaded area denotes time nitrogen applications are allowed in Alachua County; -, No Application; N, Nitrogen; Fe, Iron Only Application. Include additional nutrients within fertilization schedule with nitrogen based on soil test results.

ADDITIONAL RESOURCES

It is important to note that some of the EDIS publications from UF/IFAS Extension below are state-wide recommendations and are not 100% reflective of Alachua County’s fertilizer code.

- The Florida-Friendly Landscaping™ Program:
<https://ffl.ifas.ufl.edu/index.html>
- General Recommendations for Fertilization of Turfgrasses on Florida Soils:
<https://edis.ifas.ufl.edu/pdf/LH/LH01400.pdf>
- Homeowner Best Management Practices for the Home Lawn:
<http://edis.ifas.ufl.edu/ep236>
- Soil and Fertilizers for Master Gardeners: The Florida Gardener’s Guide to Landscape Fertilizers:
<https://edis.ifas.ufl.edu/mg448>
- Alachua County Fertilizer Code:
<https://www.alachuacounty.us/depts/epd/waterresources/codesandcompliance/pages/fertilizer-code.aspx>
- Alachua County MuniCode:
https://library.municode.com/fl/alachua_county/codes/code_of_ordinances?nodeId=PTIIADCO_TIT7HESA_CH77WAQUSTMAPR_ARTIVFESTMAPR