

Home Lawn Fertilization – Deep Implications

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Americans are passionate about lawns. Whether you love lawns or hate them, we have developed an expectation of lawns that teeters on unsustainable. While people may argue back and forth about the value of lawns, it's a fact that poorly managed lawn inputs impact our environment, mainly in areas of surface and groundwater quality. By "inputs" I am referring here to fertilization, irrigation, and pesticide applications. Many states, including Florida, Wisconsin, and Maryland, have developed restrictions on lawn inputs due to direct impacts on



Turf with large patch disease

local water systems and associated ecosystems.

As a gardener, horticulturist, and general supporter of our landscape industries, I agree lawns have many important values and serve many

roles in the modern landscape, but we must address the unintended consequences of our management practices. In this article, I'll focus on an overview of **lawn fertilization timing**.

Living along the Gulf Coast, our cool season tends to be a roller coaster of extremes. Because of this, our lawns tend to look green even though they are technically dormant. All of our residential lawns, mostly St. Augustine and Bermuda, are warm-season lawn species. This defines them as plants that actively grow during the warmer months and go through some period of winter dormancy. This dormancy period affects when we should fertilize. We can address this in two ways.

Let's talk first about what we can see -- the foliage. During mild winters our lawn looks green, but while it may be going through some amount of photosynthesis, it's not actively putting on new growth. By encouraging growth with fertilizer when it's dormant, we put the lawn in jeopardy of frost damage during our random cold blasts. This cold damage stresses the plant, making it use up stored energy resources, which in turn makes it more susceptible to pest, disease, and environmental stressors down the road.

Now, let's dig into what we can't see, the roots. We know the top part of the plant goes dormant -- we can see it. What we can't see, the dormant root system, decreases its overall

root system by as much as 75%! In this process, the plant saves the thicker roots closer to the surface that store energy, and sloughs off most of its extensive fibrous root system. It's these fibrous roots, or "feeder roots", that absorb water and nutrients from the soil. Without active feeder roots, much of your winter inputs literally go down the drain.

While our lawns tend to green up by February, active spring growth doesn't begin until around

April 1st when we're typically past our last frost date and the plant starts growing back its feeder roots. This suggests the time for **spring application is early to mid-April**. Now for the fall, our lawns begin the dormancy process in October, slowing leaf growth and sloughing its root



Turf with freeze damage

system. Assuming that the release period of your fertilizer is around 6 weeks, your **last fertilization of the year would be applied in late August or early September**. Applications after this time only expose your lawn to cold stress and disease, and feed the multitude of cool-season lawn weeds.

Dig down further into the topic on The Texas A&M Turfgrass website <http://aggieturf.tamu.edu> which houses a wealth of online resources. Books out there expanding on the topic include **The Texas Lawn Guide** by Steve Dobbs, and **The Complete Guide to Texas Gardening** by Neil Sperry. For answers to your specific lawn questions contact the Fort Bend Master Gardener Hotline at <http://fbmg.org/contact>.