

*Make your neighbors jealous!*

# Home lawn fertilizati

## **Why fertilize my lawn?**

We fertilize lawns for the same reason we fertilize our gardens, trees, shrubs, and other plants—to provide plants with nutrients that are limited in the soil. Nutrient-deficient lawns can become thin and patchy due to lack of vigor, which can provide weeds a place to establish. Lawn fertilizers are applied to increase plant vigor during the growing season, to increase density and uniformity, and to produce a lawn that is darker green in color. Increased vigor and density increases plant competition and decreases potential weed populations. A well-maintained lawn can improve curb appeal, raise property value, increase tolerance of foot traffic, and provide an outdoor space for recreation and entertaining.

## **Do I need to fertilize my lawn?**

Your lawn care decisions depend on how you answer the following

questions: What is a nice-looking lawn? How does my lawn fit into my home's landscape? What are my expectations for my lawn?

If, to you, a nice lawn must be manicured, dark green, and dense, with minimal weeds; tolerate wear and tear from kids and dogs; and allow you to safely walk barefoot, you will likely need to add fertilization to your to-do list. However, if you prefer a low-input approach or more natural look, fertilizers may not be required in order to meet expectations for appearance and turf density. In general, lawns consisting of traditional turf grass species such as Kentucky bluegrass and tall fescue benefit from annual fertilizer applications.

Is fertilization necessary? It depends on your expectations.

## **What kind of fertilizer should I use on my lawn?**

There are many brands and formulations of lawn fertilizers, including granular, liquid,

quick-release, slow release, water-soluble, organic, and synthetic. Some have only nitrogen (N), while others may contain, phosphorus (P), potassium (K), iron, and sulfur as well. While the brand name may make a difference, it's the content of the fertilizer that you should focus on. Fertilizer labels typically have three numbers, sometimes four, that tell you the nutrient analysis of that fertilizer. Those three numbers stand for N-P-K. For example, a bag of fertilizer labeled 20-4-5 has 20 percent nitrogen, 4 percent phosphorus, and 5 percent potassium. A fourth number, if included, would be the percentage of additional nutrients such as iron or sulfur (as indicated on the label).

Nitrogen is typically the most significant nutrient in lawn fertilizers because its availability is limited in soil. N is important because plants use it to produce chlorophyll (green pigment) in leaf tissue. Chlorophyll is critical for photosynthesis and plant survival.

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Without enough N, chlorophyll production is limited and plants can become yellow, dull green, and stunted. Fertilizing with N helps produce a dense, vigorous, and dark green lawn.

Nitrogen fertilizers come in various forms. Water-soluble N sources include urea, ammonium nitrate, ammonium sulfate, potassium nitrate, calcium nitrate, and others. Also known as quick-release fertilizers, they provide a rapid growth and color response. Fertilizers containing water-soluble N typically provide a fertilizer response for 4 to 6 weeks; however, they are prone to leaching in sandy soils. They can also cause fertilizer burn on lawns, so it is important to water immediately after application.

Polymer-coated urea and sulfur-coated urea are commonly available slow-release fertilizers. Slow-release fertilizers reduce the risk of fertilizer burn and leaching, and may provide a fertilizer response for 10 to 12 weeks.

I prefer slow-release products because one application typically covers a 90- to 100-day growing season.

Some fertilizers also provide phosphorus, which promotes root growth, and potassium, which can improve cold hardiness. Phosphorus and potassium are often readily available in Wyoming soils, but not always. Many fertilizers do not include P and K, or provide very low percentages, because of environmental risks associated with overapplication.

Iron, like N, is used by plants to produce chlorophyll, and can also increase greening of leaf tissue. Soils with a pH above 7.5, which are common in Wyoming, limit iron availability to plants, including the lawn. Iron deficiency results in dull green and yellow foliage. Iron fertilizers can also stain sidewalks and driveways, so make sure to sweep any excess into the grass before watering.

While inorganic and synthetic fertilizers are common, organic

fertilizers are also viable options for home lawns. Some common organic fertilizers contain alfalfa, cottonseed meal, corn gluten meal, rock phosphate, manure, earthworm castings, bone meal, feather meal, seaweed, and kelp. Organic fertilizers require microbial decomposition and chemical breakdown before plant-available nitrogen is released. Because microbes are more active when temperatures are warmer, organic fertilizers tend to perform slowly when soils and air temperatures are cool.

## **How should I fertilize my lawn?**

A drop spreader is a handy piece of equipment for anyone who fertilizes their lawn. You fill the hopper, adjust to the proper setting, and walk in a similar pattern to mowing the lawn, overlapping slightly on each pass. Broadcast spreaders may be a better choice for larger lawns because they apply fertilizer to a



larger area, reducing the number of times you have to walk back and forth across the lawn.

### How much fertilizer should I apply?

As a general rule, do not apply more than 1 pound of N per 1,000 square feet per application. For most Wyoming lawns, 1 to 2 pounds of N per 1,000 square feet per year will produce a very nice lawn. Make sure to read the instructions on the fertilizer bag before application. Many will tell you how to adjust your spreader settings to apply the correct amount.

### When should I fertilize my lawn?

There are a few times each year when you should consider fertilizing your lawn. The earliest is shortly

after the lawn greens up in spring, using a quick-release fertilizer. If your lawn greens up when the temperatures first warm up and there is still some moisture in the ground, you can wait until early summer to apply an organic or slow-release fertilizer.

My favorite time to fertilize is when I aerate or dethatch the lawn. First, I water the lawn; the next day I aerate, fertilize, and water again. A week later it's hard to believe it is the same lawn.

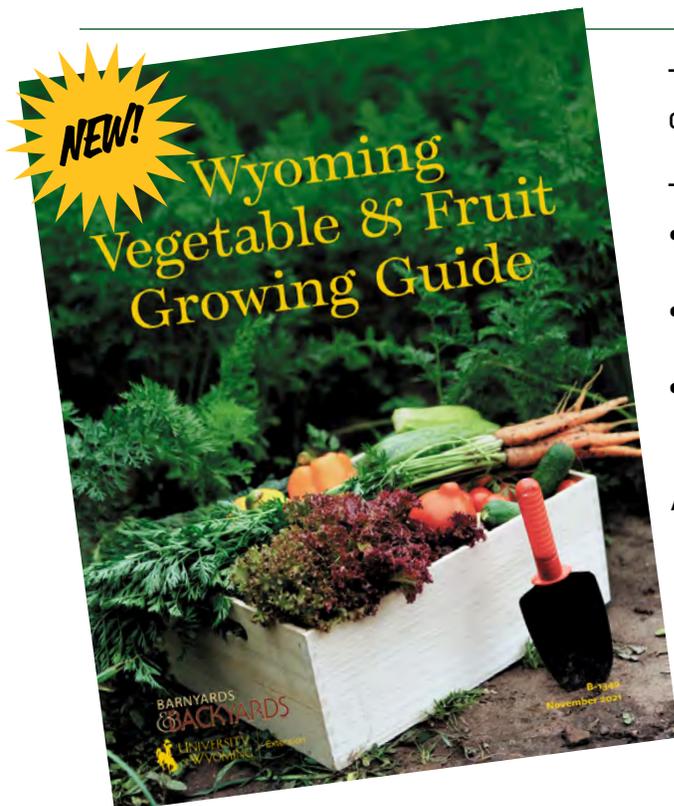
Keep in mind that soil temperatures are still cool in spring, which means organic products break down very slowly before they are available for plant uptake. For this reason, I prefer to use quick-release (water-soluble N) lawn fertilizers in the spring. Once soil temperatures have warmed, I

switch to slow-release and organic fertilizers.

### How often should I fertilize my lawn?

To maintain a manicured lawn in Wyoming, you will need to apply fertilizer 1 to 2 times per year. If you have Kentucky bluegrass or tall fescue, consider fertilizing once every 1 to 3 years. If you prefer a lower maintenance approach, consider planting fine fescues, buffalo grass, or crested wheatgrass (depending on your elevation). These are all drought-tolerant options with very low fertility requirements.

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In addition to having the nicest lawn on the block, **Chris Hilgert** is a horticulture specialist and the Master Gardener statewide coordinator. He can be reached at (307) 766-6870 or [chilgert@uwyo.edu](mailto:chilgert@uwyo.edu).



The new *Wyoming Vegetable & Fruit Growing Guide* is available online! Get your free downloadable copy at [bit.ly/WY-fruit-veg](https://bit.ly/WY-fruit-veg).

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