

# TURF'S UP:

## GROWING A HEALTHY LAWN IN PHOENIX DESERT LANDSCAPES

For those of us who migrate to Phoenix from other parts of the country, growing green and healthy grass in the middle of the desert is our biggest landscape challenge. But talk to Greater Phoenix natives, particularly those who were here before the building boom, and they're dismayed by the amount of grass growing in the middle of the desert.

True, grass doesn't really belong here. But thoughtfully mixing turf areas with native desert landscaping—one of the **xeriscape principles**—not only provides play areas for kids and pets, it respects our native desert environment and reduces water use. With around 70 percent of residential water used in the landscape,<sup>1</sup> reducing the amount of grass also reduces your water bill!

It also takes more work to keep grass healthy here than in other parts of the country. So reducing the amount of grass in your desert landscape also reduces the amount of maintenance required for those lush, green lawns. That's less work for you. So let's find out what it takes to get that grass growing!

### What is Bermudagrass?

*Cynodon dactylon* (Bermudagrass) or one of its hybrids is the most common grass used in residential lawns and desert landscapes around Phoenix. While it's likely native to Asia, Bermudagrass is found all over the world and in most of the United States, except in the Upper Midwest and Northeast.<sup>2</sup>

It thrives in warm, sunny climates and in the most difficult of soils, making it ideal for Phoenix desert landscapes. A warm season perennial, Bermudagrass spreads by stolons and rhizomes. If you've ever looked at Bermudagrass up close, you've probably noticed that it sends out an aboveground stem that can be up to 18" long and at several points along that stem, it roots itself. Those are stolons. Bermudagrass also spreads the same way underground by rhizomes.

Because it's a prolific spreader, Bermudagrass can easily become invasive. If you've ever planted a vegetable garden or otherwise tried to declare a grass-free zone in your yard, you know it can be difficult to control. In fact, Bermudagrass is considered a noxious weed in California, Utah, and Arkansas.<sup>3</sup> This may explain why it's also known as Devil's Grass and Smutgrass!

Bermudagrass is available in two types: common and hybrid. Common Bermudagrass produces pollen and seed and, thus, can be very allergenic. Hybrid Bermudagrass generally does not produce pollen or seed, and offers improvements in color, growth habit, drought tolerance, and more.

Because Bermudagrass is a warm season grass, it's actively growing between the middle of April and the middle of October in the Phoenix desert. It then goes dormant from November to April. Overseeding

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<sup>1</sup> Source: Arizona Municipal Water Users Association.

<sup>2</sup> Source: U.S. Department of Agriculture, Natural Resources Conservation Service.

<sup>3</sup> Source: U.S. Department of Agriculture, Natural Resources Conservation Service.

during the dormant period with a cool season grass, such as Ryegrass, depletes the soil of needed nutrients and is not recommended. If you must overseed, let Bermudagrass go dormant at least every two years.

## Planting Bermudagrass

Bermudagrass can be planted from seed, from sprigs (stolons), or from sod. While sod provides instant gratification and can be laid down at any time of the year, it can be expensive. Seeds and stolons are budget friendly, but they'll take two to three months to fill in—and may require more maintenance up front. Plant seeds or stolons between May and August when grass is actively growing.

*A little note about planting new lawns: For the most complete information about planting new lawns, check out **Desert Landscaping for Beginners**. This book, published by Arizona Master Gardener Press, covers everything from which planting method to choose and how to plant to preparing the soil and basic maintenance.*

## How to Maintain an Existing Bermudagrass Lawn

### **Water It**

In the Phoenix desert, everything is thirsty—including our lawns. With an average annual rainfall of 8" (and much less during a drought), we don't have the luxury of natural rainfall to water the grass. So a sprinkler system is a necessity, both for providing—and conserving—water.

With sprinkler systems (and drip systems), the key is to water deeply and allow the soil surface to dry out between waterings. Use the same amount of water all the time, but change watering frequency as the weather changes. For example, in the winter, dormant Bermudagrass should be watered once per month. But in the hottest, driest summer months of Phoenix, grass should be watered every two to three days.

How will you know if your grass is getting enough water? Push a soil probe or a long screwdriver into your lawn at various spots until it stops. If it goes down 8-12", your grass is getting the water it needs to maintain a healthy root system.

*Consult the Maintenance Schedule at the end of this guide, or check out **Desert Landscaping for Beginners** for more specific information about watering your grass.*

### **Fertilize It**

Applying fertilizer every month during the active growing season is essential for a healthy lawn. A good fertilizer provides the nutrients that our desert soils often lack, particularly nitrogen. A good ratio to look for is 3-1-2—that is, 3 parts nitrogen, 1 part phosphorus, and 2 parts potassium. This is most often sold as 21-7-14.

Because fertilizer is applied during the hottest months of the year, plan to water immediately following application to prevent burning.

There are also organic options for fertilizing Bermudagrass, including compost, blood meal, and liquid seaweed. Check with your nursery professional for specific products.

Yellowing is often a sign that Bermudagrass isn't absorbing the iron it needs. If this is an issue, try applying an iron supplement two to three times each season.

*Consult the Maintenance Schedule at the end of this guide, or check out **Desert Landscaping for Beginners** for more specific information about fertilization.*

### **Weed It**

Weeds always crop up, and can be a challenge. Before weeds sprout, apply a pre-emergent in March. A pre-emergent kills weeds *before* they sprout up.

Once weeds have sprouted, it's best to pull them by hand. But if your lawn is over-run with weeds, try a post-emergent. Even better, spray weeds with 100% vinegar for an organic weed control.

*Consult the Maintenance Schedule at the end of this guide, or check out **Desert Landscaping for Beginners** for more specific information about controlling weeds.*

### **Aerate It**

When you tell people you live in the desert, they often think we garden in sand. In some deserts, that's true. But here in Phoenix, our soils range from clay to caliche. And they're heavily compacted, which makes it difficult to dig!

Aerating your soil every couple of years helps give roots the air, nutrients, and water they need to survive—and thrive.

Again, you can rent an aerator for larger lawns. Or use a push or core aerator for smaller lots. With these aerators, you can push them or press them with your foot into the ground every few feet to punch holes into compacted soil and allow faster delivery of air, water, and nutrients.

*Consult the Maintenance Schedule at the end of this guide, or check out **Desert Landscaping for Beginners** for more specific information about aeration.*

### **Dethatch It**

What is thatch? It's that layer of matted dead grass that builds up on the top of the soil. On the one hand, thatch acts as a mulch to keep grass cool and hydrated. But if it gets too thick, thatch can stifle

growth and harbor diseases and pests. Lift the mat on your lawn for a quick assessment. If it's more than ½" thick, you will need to dethatch your lawn during the active growing season.

For a small area, you can use a dethatching rake or a bow rake to take up the thatch. For larger areas, you can rent a dethatching machine—or have your landscaping professional do it. Dethatch in both directions and then apply fertilizer and water well.

*Consult the Maintenance Schedule at the end of this guide, or check out **Desert Landscaping for Beginners** for more specific information about dethatching.*

### **Mow It**

Last, but not least, a good mowing regimen is key to a healthy lawn. And good mowing starts with sharp blades. Make sure to sharpen or replace blades at least once a year.

Mowing not only encourages new growth (think of it as pruning your grass!), it keeps common Bermudagrass from setting seed. Improper mowing can damage leaf blades, making them more susceptible to diseases, pests, weeds and other factors that negatively impact the health of your lawn.

When mowing, a good rule of thumb is to never remove more than one-third of the leaf blade. That means if your leaf blade is 3" from soil surface to the tip, then you should remove no more than 1". Now, most of us will not get on our hands and knees and measure our grass. But, on average, most (but not all) Bermudagrasses should be mowed to a height of around 1.5".

The key is to not to scalp your lawn by mowing grass too short. Scalping will damage root systems and cause your lawn to brown. Like pruning trees and shrubs, you should never remove more than 30% of the blade in a mowing.

*Consult the Maintenance Schedule at the end of this guide, or check out **Desert Landscaping for Beginners** for more specific information about mowing and mowing heights for specific grasses.*

### **The Must-Have Resource for Phoenix Desert Gardeners**

How we manage our lawns here in the Phoenix desert is different than lawn maintenance anywhere else. One of the sources used to create this article, *Desert Landscaping for Beginners*, has more extensive information about specific grass types and how to care for each, as well as more specific information about lawn maintenance. It also covers desert plants, citrus, roses, pruning, plant problems and more and is a must-have resource for every Phoenix gardener.

With good information, experience, and a little luck, you can have a thriving, green lawn in your Phoenix desert landscape.

## Maintenance Schedule for Bermudagrass Lawns

|                  | Fertilize | Water          | Mow                                 | Dethatch/Aerate                            | Weed Control   |
|------------------|-----------|----------------|-------------------------------------|--|--|
| <b>January</b>   |           | Monthly        |                                     |  |  |
| <b>February</b>  |           | Monthly        |                                     |  |  |
| <b>March</b>     |           | Monthly        |                                     |  | Apply pre-emergent once in March/April only if needed              |
| <b>April</b>     | Monthly   | Every 5-7 days | Minimum suggested height            |  | Apply pre-emergent once in March/April only if needed              |
| <b>May</b>       | Monthly   | Every 3-5 days | Gradually raise to suggested height | Aerate after May 15                        |  |
| <b>June</b>      | Monthly   | Every 2-3 days | Suggested height                    | Dethatch if more than ½", aerate as needed |  |
| <b>July</b>      | Monthly   | Every 2-3 days | Maximum suggested height            | Dethatch if more than ½", aerate as needed |  |
| <b>August</b>    | Monthly   | Every 2-3 days | Maximum suggested height            | Aerate no later than August 15             | Apply pre-emergent once in late August or September only if needed |
| <b>September</b> | Monthly   | Every 2-3 days | Maximum suggested height            |  | Apply pre-emergent once in late August or September only if needed |
| <b>October</b>   | Monthly   | Every 3-7 days | Maximum suggested height            |  |  |
| <b>November</b>  |           | Monthly        |                                     |  |  |
| <b>December</b>  |           | Monthly        |                                     |  |  |

\*Adapted from *Desert Landscaping for Beginners* (page 191).

### Sources:

- Cromell, C. (ed.), *Desert Landscaping for Beginners*, Arizona Master Gardener Press, 2001.
- Owens, D., *Extreme Gardening: How to Grow Organic in the Hostile Deserts*, David Owens/Poco Verde Landscape, 2000.