



CONVERTING TURF TO A XERISCAPE LANDSCAPE

How to Eliminate a Bermudagrass Lawn Using Glyphosate

The most difficult part of conversion from a lawn to a low water use (xeriscape) landscape is the elimination of a lawn. By removing a bermudagrass lawn, it is estimated that water savings of 50 -75% are possible. Potential water savings comes from the fact that water is applied to a limited amount of total yard space, compared to the greater water needs of a continuous grass-covered area. Also, by planting low water use plants, less maintenance is required and substantial cost savings can be realized.

It is difficult to eliminate bermudagrass without the use of herbicides. However, care must be taken in selecting the proper chemical. Avoid using soil herbicides that have a long residual activity because they may have unanticipated and devastating consequences. They prevent desirable plant growth for years and affect both the roots and foliage of landscape plants.

The easiest to use and safest chemical for bermudagrass removal is called glyphosate (glī-fō-sāte) which is marketed under many brands and names. Glyphosate is a non-selective herbicide, which can kill most plants after it is absorbed by the green leaf tissue. It will then move plant growing points such as new roots, shoots, and developing fruits. For bermudagrass it is important to kill the underground rhizomes that give rise to new shoots and roots.

Glyphosate moves downward in the plant, killing the roots and the above-ground plant parts. Glyphosate is inactivated in the soil by contact with soil micro-organisms. Typically the effects of glyphosate are manifested in 7 - 14 days. Take particular care not to get any glyphosate on any desirable plants. Use plastic sheeting, plywood sheets or cardboard to shield your desired plants from the spray. Use a coarse spray that reduces spray drift. Since glyphosate enters the plant through green leaves, you can safely plant flowers, trees, shrubs, and seeds in the soil where the chemical was applied. Most glyphosate formulations do not require the addition of spreader sticker or soaps in the final spray mixture. *Read the label carefully before using pesticides and follow the label instructions.*

Glyphosate kills plants when they are actively growing, are green, and have adequate soil moisture.

About two weeks prior to applying glyphosate (when temperatures are in the 80's and the grass is actively growing), fertilize and irrigate the lawn just as if you

wanted to keep it. Do not scalp the grass before applying the glyphosate, because leaf uptake will be minimal, and so will your results!

Mix your spray according to the label or buy ready-to-use glyphosate and apply the spray evenly.

Read the label carefully to determine the correct dilution rate. There are ready-to-use products containing glyphosate that can be used without any further dilution.. Do not exceed the recommended rate on the label as this is both wasteful and illegal. Spray the leaves until they get wet and shiny. Do not over saturate the grass with the spray; this does not improve effectiveness. Apply the treatment during the early morning hours during summer when the turfgrass is not stressed by heat. **DO NOT** water the lawn for one full day. The next night, water the lawn as usual. It is important for the herbicide to move inside a "normally growing plant". Gradually reduce watering over the next two weeks to allow the glyphosate to work

Allow about 10 days for the glyphosate to work. It will take about 2 weeks for the lawn to turn brown. You will have killed most of the bermudagrass, and some may come back! So, simply repeat the process outlined above.

The best time of the year to apply glyphosate in the desert is late spring after the bermudagrass greens up and through fall when the temperatures are still above 80 ° F. during the day. Do not apply if rain is expected within a few hours of spraying during the 'monsoon' season.

Once the grass is brown and dead, either set your mower blade for the lowest height and 'scalp' the lawn;

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or better yet, rent a power rake (verticutter) to remove as much grass as possible. Then establish the final grade by digging out about two inches of soil below the surrounding hardscape to prevent decomposed granite or gravel from moving from the landscaped area to your patio or walkway.

To prevent other weed seeds in the soil from germinating and becoming a nuisance apply a preemergent herbicide. Preemergent herbicides will affect germinating seedlings and have no effect on weeds that have already emerged and become established. They are considered safe and should not hurt established landscape plants when applied at the label rate and to the bare ground. Preemergent herbicides can control **BOTH** grass and broadleaf weeds. If no rain is expected the preemergent herbicide must be watered in to the soil to be effective or use a rake to scratch it into the surface layer of the soil. Preemergent herbicides should be most effective when spring rains or monsoon rains follow within one to two weeks of an application.

When the lawn is eliminated, **DO NOT** use plastic sheeting or roofing felt under the rock mulch. Both of these materials decompose when exposed to the sunlight over time. They can impede drainage, cause plant root oxygen starvation, interfere with irrigation and restrict effective preemergent herbicide uptake.

Some General Information About the Chemical Control of Weeds

Glyphosate is absorbed through the leaves of plants and is not effective when applied to the soil. You can safely plant a tree or shrub in the soil where glyphosate was used without causing any serious plant injury. Do not apply glyphosate if rain is expected within 4 hours of application, wait for a dry period because the effectiveness of glyphosate is greatly reduced by rain washing off the herbicide from the treated leaves.

Preemergent herbicides will not affect weeds that are already growing. Where a small number of weeds have sprouted, a 'spot' treatment of glyphosate is effective for

weed control. Hand weeding of annual and perennial weeds is often a practical solution, especially where there are only a few weeds in a small area.

Preemergent herbicides are usually applied in October and March, just prior to the rainy seasons. These seasonal application times are generally effective in controlling winter annual weeds, and summer annual weeds, respectively. Remember, if you plan on seeding wildflowers such as African daisy or California poppy, preemergent chemicals will prevent their establishment.

Etc.

One cubic yard of decomposed granite will cover approximately 108 square feet at 3 inches deep.

Depending on the specific product, that is available, glyphosate, concentrations will vary in a container. Glyphosate is sold as a concentrate, a super concentrate, and as a ready-to-use product (use undiluted directly from the container). Read the label and follow the instructions.

After your bermudagrass is gone, preemergent weed control in your xeriscape garden is available through chemicals sold in either a liquid or granular formulation. Most preemergent chemicals are effective on grassy annual weeds. The chemical isoxaben is more effective on broadleaf weeds. A combination product of a grassy weed killer and a broadleaf weed killer is commercially available.

Read the ingredient label on the containers to be sure that you are buying the right product for the right job!

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