SEEDED BERMUDAGRASS LAWNS

Seeded bermudagrass, properly maintained, will provide a dense, wear-resistant, attractive turf at low cost over a wide range of conditions. For more than 50 years, Arizona grown bermudagrass seed has been used to establish the majority of home lawns, athletic fields, parks and golf course fairways in the southern third of the United States. In Arizona it is the standard turfgrass for all areas below 4000 feet elevation. It is a sun and heat loving grass that greens up only when night temperatures begin regularly exceeding 60ºF in the spring and goes dormant (brown) in the fall as nights get into the 50s or below. It will not grow in dense shade and is not its best in partial shade. Trees in bermudagrass lawns should be trimmed 8 to 10 feet above the grass to allow sufficient light for growth.

Site Preparation:

Lawns and other turfgrass areas are generally intended as permanent installations. To assure satisfactory performance and easy maintenance, the seedbed should be carefully prepared.

A lawn seedbed must provide air, water and nutrients to the grass roots. To do so, its surface and its interior must be well drained. Water should enter the soil easily.

Internal drainage allows air passage into the soil following watering. Good root growth depends on adequate oxygen availability. Clay soils which have low water intake rates and low porosity can be improved by incorporating large amounts of sand plus organic matter (10 to 15 yards of sand with 2 to 4 yards of organic matter per 1,000 square foot). Low water and nutrient holding capacities of sands can be improved by incorporating organic matter and silt. Additives should be worked at least 6 inches into the topsoil. Where topsoil is spread over a prepared grade, there should be at least 6 inches of it. The subgrade level should be tilled first to encourage a smooth transition with minimum layering. The final seedbed should be smooth, settled, firm, free of stones, and granular rather than powdery. Install an underground sprinkler system after the site is prepared but before final leveling operations.

Seeding:

A good stand of grass from seed requires both a good seedbed and quality of seed. Bermudagrass seed is available in common and improved varieties, unhulled or hulled and coated. Clean, hulled seed germinates and establishes a stand most quickly and should be used. Certified hulled bermudagrass seed is pure to type, free of weeds and has high germination. Seeding at 3-5 pounds per 1,000 square foot (20X50) will give a dense stand. If certified seed is not available, ask to see the seed analysis. Good seed should have a purity above 95% (certified 98%), germination above 85% (certified 90%), weed and other crop less than .5% (certified .05% and .25%). “Cheap” bermudagrass seed often has mixtures of giant bermudagrass in it (“other” crop percentage on analysis). Giant is a tall coarse, hay type that is unsightly and competes with the turfgrass types. Since you are planting to provide good grass for many years, the somewhat higher cost of good seed is a small price for long-time satisfaction.

Because bermudagrass requires warm temperatures for best growth, seeding should not be done until night temperatures regularly exceed 65ºF, nor should it be so

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late that the young stand is not established well before frost. Normally, seeding would have best chances from May to August. Seed should be broadcast by hand, with a mechanical broadcaster or with a spreader. To ensure uniform spread, divide your seed into two or more equal portions and seed each across the other in different directions. Rake the seed gently into the surface soil and top dress lightly with an organic mulch such as peat moss or rotted manure to help hold seed and moisture on the surface and reduce crusting. Remember that these seeds are very small and must be within the top 1/4 to 1/2 inch of the surface to grow. They must also be kept moist for the first 7 to 10 days by frequent gentle watering.

Fertilization:

Bermudagrass is a heavy user of nitrogen, and a good turf requires regular applications. Phosphates and potash in most Arizona soils are seldom limiting to bermudagrass growth, and applications of them seldom give a response. Unless initial seeding is in a very sterile, sandy, gravelly soil, it is best to wait until seedlings are 1 to 2 inches high before fertilizing a new stand since nitrogen may encourage rapidly germinating and growing weeds while the bermudagrass seedlings are not yet ready to compete. Once a stand is established, approximately 1 pound of actual nitrogen per month for each 1,000 square feet will ensure vigorous growth. On an established stand, the first fertilizer application should be made after the grass begins vigorous growth in the spring and the last in September or October before dormancy. Sources of nitrogen are similar in their effectiveness so long as equivalent amounts of nitrogen are applied; therefore availability and cost become principal factors in choosing a fertilizer. Every fertilizer carries an analysis : e.g., 16-20-0 (ammonium phosphate) or 21-0-0 (ammonium sulfate) or 6-2-1. The first number refers to the percent nitrogen, the next of phosphate, and the third or potash. Ammonium phosphate contains 16 percent nitrogen, 20 percent phosphate and no potash. Ammonium sulfate is 21 percent nitrogen with not phosphate or potash. A 6-2-1 fertilizer contains 6% nitrogen, 2% phosphate and 1% potash. Low analysis fertilizers are usually or organic origin and cost considerably more than the inorganic forms. They have an advantage over higher analysis forms of lower, evener nitrogen release and little chance of damaging grass by over-application. To add 1 pound of nitrogen from each of the above forms would require, in round numbers, 6,5, and 17 pounds of the fertilizer. In general the higher the nitrogen percentage, the lower the cost per unit of nitrogen.

Bermudagrass may become yellow in early spring and during the summer rainy period. The chlorite condition is due to a disturbance in iron uptake. It can be corrected by applying iron either as ferrous sulfate or in commercial formulations containing ferrous sulfate or as iron chelates. The sulfate portion of ammonium sulfate and other combinations of sulfur in various fertilizers tend to make our alkaline soils more acid and iron more available to the grass but will not solve the clorosis problem by themselves.

Watering:

Lawns in Arizona must be watered to ensure good growth. Seeded bermudagrass uses the most water during the periods of active growth. From mid-May to mid-September water needs average from 1 to 2 inches per week. With a properly prepared site, applications at weekly

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intervals, early or late in the season and at 3 to 4 day intervals during the hot part of the year are preferable to more frequent, light watering. Deep moisture penetration encourages deep rooting, discourages weeds and helps to leach harmful salts from topsoil. Application rates can be checked by placing empty coffee cans at intervals and measuring water depth at given lengths of time.

Mowing:

For quality turf in a highlighted institutional landscape area or well-cared-for home lawn, mowing should be at 1/2 to 3/4 inches above ground level and at 4 to 5 day intervals. For park and recreational turf, a 1-inch height and weekly interval is typical. If mowing is frequent enough to scatter clippings evenly, they should be left on the turf to recycle nutrients. Mowers, whether reel, rotary or flail, should be sharp, and changes in height or frequency of cut should be gradual. Avoid following the same pattern each time you mow.

Weeds, Insects and Diseases:

A vigorous bermudagrass lawn growing in a well-drained, porous, fertile soil with adequate deep moisture and frequent mowing will normally be free of or outgrow any pests.

For information on control of specific problems, contact your local nursery or your county agent.

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