

Buffalograss is a native prairie grass that can be used for low-maintenance lawns and other turf areas. This low-growing, finely-textured grass requires less mowing, watering, and fertilizing than traditional lawn grasses. Although several cultivars can be seeded, others must be started from sod or plugs. Buffalograss is a warm-season grass that spreads by stolons (runners) but not as aggressively as bermudagrass. Once established, it survives extreme heat, drought, and cold.

Buffalograss grows best in full sun, but 6 to 8 hours of direct sunlight per day is enough for acceptable turf. Stands will be thinner in semi-shady areas. Almost no growth occurs in heavily shaded areas. A well-drained loam soil is ideal for easy establishment and maintenance of an attractive turf. Establishment is slower on clay and compacted sites, but buffalograss can tolerate these conditions. Sandy soils, wet areas, and poorly drained soils are not suitable.

Buffalograss is not a miracle grass, nor is it the ideal turfgrass for every situation. It should not be planted with the expectation it will perform better than other lawn grasses with minimal work. Buffalograss greens up earlier than bermudagrass, but several weeks later than Kentucky bluegrass or tall fescue. It turns brown after the first fall freeze. The gray-green color and shorter growing season may not be acceptable in every situation, but it requires considerably less maintenance than cool-season turfgrasses.

Of the prairie grasses, buffalograss performs best as turfgrass. It is interesting and attractive and well-suited for low-maintenance, naturalistic areas. Buffalograss is not managed like other lawn grasses. It should be planted by those who appreciate the natural look of this native prairie grass and do not want it to look like other lawn grasses.

Care and Management

Buffalograss survives with little care in a suitable location. Mowing, watering, fertilization, and weed control are all that is needed for quality turf. Although it responds well to watering and fertilization by producing a greener, thicker lawn, too much care may be harmful. Weeds are a sign that buffalograss is overmanaged. Applying excess water and fertilizer defeats the purpose of planting a native grass.

Watering: The most beneficial time to water buffalograss is June, July, and August when drought tends to be most severe. Spring watering benefits weeds more than buffalograss. It is not recommended except under drought conditions. A good soaking at the end of a dry fall helps roots and crown maintain good condition over the winter and encourages more vigorous turf the following spring.

Although buffalograss does not have to be watered as often as other lawns, when it is watered, it should be soaked thoroughly. Frequent, light watering leads to weeds, shallow rooting, and other problems. A deep watering every two weeks during hot,

dry summer weather is sufficient in most areas of the state. In western Kansas during severe drought, weekly watering helps home lawns maintain an acceptable green color but is not necessary for survival. In high rainfall areas of eastern and central Kansas, watering too much is of greater concern than watering too little, except during prolonged drought.

Cutting the amount of watering or stopping entirely does not harm buffalograss, as long as it has not been on a program of frequent watering. Even after grass goes completely dormant, normal growth resumes quickly with rainfall or irrigation. One or two deep soakings during the summer is enough for low-maintenance areas. Golf courses, parks, playgrounds, and other high-traffic areas may need to be watered more often to encourage regrowth during periods of heavy use.

Water based on local weather, soil conditions, and desired maintenance, rather than sticking to a fixed schedule. Weather varies greatly from western to eastern Kansas, from year to year, and within the growing season. Various soils absorb and hold water differently. Applying too little water is less of a concern than applying too much. Water only enough for moderate growth and color.



'Cody' buffalograss lawn maintained at a 3-inch mowing height.

Fertilizing: From 0 to 2 pounds of actual nitrogen per 1,000 square feet per season is recommended for buffalograss, depending on desired maintenance. One pound is about right for average conditions. Fertilizer affects the amount of mowing, watering, and weed control. Applying more than 2 pounds of nitrogen per season defeats the low-maintenance advantage and may lead to problems. The fertilizer brand does not make much difference, but a controlled-release formulation is recommended to prevent excessive growth.

Perform a soil test to determine phosphorus and potassium requirements. If a soil test is not available, use a nitrogen-only fertilizer or one with a small amount of phosphorus and a medium amount of potassium compared to nitrogen. Avoid regular use of a balanced fertilizer such as 10-10-10 or 13-13-13. Too much phosphorus encourages broadleaf weeds and traps essential micronutrients in the soil. If needed, incorporate phosphorus before planting or in conjunction with core aeration.

Fertilize buffalograss when it is growing, preferably in June after stolon growth begins. Early fertilizing, watering, and mowing encourages weeds and leads to other problems.

Fertilizing Buffalograss

	lb N/1,000 sq ft/year
Low-maintenance areas	0–¾
Average-maintenance areas	1
High-maintenance areas	2

If applying more than 1 pound actual nitrogen, split applications. Two pounds actual nitrogen per year is the maximum amount for buffalograss.

Mowing: Buffalograss does not require much mowing. It tolerates a wide range of mowing heights, and because it is naturally low-growing at 4 to 8 inches, it may not have to be mowed at all. Although buffalograss can be kept short, tall grass is more resistant to drought and weeds. It requires little maintenance, other than mowing to remove male pollen flowers above the foliage. In naturalistic areas, these flowers add to the beauty and interest of this native grass. While there is no need to mow until weeds outgrow buffalograss, it is recommended that you remove no more than one-third of the foliage at a time. Shorter turf requires more frequent mowing. For more information, see the K-State Research and Extension publication, *Mowing Your Lawn*, MF1155. Buffalograss does not produce thatch, so there is no need to collect lawn clippings. Leaving them on the lawn returns nutrients to the soil and reduces mowing time by about a third.

Mowing Heights for Buffalograss

Home lawns	2.5 to 4 inches
Golf course fairways	1 inch
Low-maintenance parks, grounds	4 inches or higher
Natural areas	None except for spring clean-up when growth begins

Burning dead foliage in the spring is not recommended. It may be regulated or prohibited by city ordinance. Although burning is a quick way to remove dead foliage, it puts evergreens

and buildings at risk and leaves a black sooty residue that can be tracked or blown around the neighborhood and into residences. Mowing is safer than burning, but neither is recommended until after buffalograss starts growing and can compete with weeds.

Weeds: Weeds are the most frequent problem in buffalograss lawns, especially during establishment. In its natural range, buffalograss competes favorably with weeds because of low rainfall. Where there is greater rainfall or when turf is watered frequently, buffalograss has more difficulty competing with weeds. An effective long-term weed control program should focus on timely and correct cultural practices — watering, fertilization, and mowing. Overmanagement favors weeds over buffalograss.

Causes of Weeds in Buffalograss

Practices that encourage weed growth include:

- light and frequent watering,
- early season fertilization and watering,
- extremely short mowing, and
- excessive fertilization.

Cool-season weeds invade buffalograss during the spring and fall when grass is dormant. During establishment when extra water is applied to germinate seed, weeds may outgrow grass and have to be mowed to keep them from shading seedlings.

It is better to tolerate a few weeds than to expect weed-free buffalograss turf, which may involve excessive herbicide application. Many safe and effective lawn weed control chemicals are labeled for use on buffalograss. Quinclorac, for example, controls many types of weeds, including crabgrass. Herbicides are effective for controlling broadleaf weeds. Some herbicides, such as such as 2,4-D, should not be applied when temperatures exceed 85° F. Herbicides containing glyphosate should only be used when buffalograss is fully dormant. For most of Kansas, a sunny day in February (>45° F) works well for this application. To prevent turf injury, make sure buffalograss is fully dormant. Kansas State University does not endorse off-label products.

Insect and Disease Problems: The most common insect problems affecting buffalograss in Kansas are caused by white grubs and buffalograss chinch bugs. Cyclic and localized outbreaks of buffalograss webworm occur sporadically. For more information, see the K-State Research and Extension publication, *Turfgrass Insect Pests*, MF2901.

Although they are not usually a problem in buffalograss, diseases may occur as a result of improper watering or fertilizing.

Buffalograss Varieties

Seeded Types	Vegetative Types
Tatanka	378
Cody	315
Bison	Buffalawn
Plains	609
Sharp's Improved II	Prairie
Top Gun	Legacy
Texoka	Prestige
Bowie	UC Verde
Sundancer	Density

Planting Buffalograss

Buffalograss is a warm-season grass that should be planted in late spring to early summer. When irrigation is not available, plant buffalograss in April and May when there is adequate rainfall for seed germination. Summer planting (June through July) is preferred for irrigated sites. Buffalograss seed planted in mid-June germinates in about a week, while early spring plantings may take two to three weeks to germinate. Summer plantings tend to have fewer weeds because of rapid establishment. Seeding is the most common planting method, although vegetative methods (plugs or sod) can be used. Be sure to purchase properly treated seed from a reputable dealer. Treated seed may be chilled at low temperatures for a specific amount of time or chemically treated to help break dormancy. Properly treated seed germinates faster and more uniformly. Avoid buying seed passed off as treated that may have been dyed to look like treated seed by checking the label for the source, method of treatment, and other information.

If cost is a concern, note that the actual cost of seed for a buffalograss lawn is about the same as for turf-type fescue, considering that only 1 to 2 pounds of seed per 1,000 square feet are required for a buffalograss lawn, compared to 6 to 8 pounds for fescue. Use the following formula to calculate seed cost:

Seed cost for planting buffalograss:

$$\frac{\text{___ lbs required for ___ grass} \times \text{___ seed cost/lb}}{\text{___}} = \text{actual seed cost \$ ___}$$

Turfgrass selection should not be based solely on seed cost. It is a small consideration for a permanent turf. In the long run, watering, mowing, fertilizing, weed control, and other maintenance costs may be much higher. For more information, see the K-State Research and Extension publication, *Turfgrass Selection*, MF-2032.

One and one-half to 2 pounds of seed per 1,000 square feet are required to establish a turf in one season. One pound of seed per 1,000 square feet of lawn area will establish a solid turf in about 1½ years. Buffalograss does not germinate as a dense stand like fescue. You can use less seed on large areas if cost is a factor. Buffalograss spreads by stolons (runners) and becomes thicker each year. Plant seed ¼ inch deep when irrigated, or up to ½ inch deep if soil moisture is limited. Buffalograss may be drill-seeded or broadcast and worked into tilled soil. Hiring a professional is recommended but not necessary.

Most seed is pretreated and can be soaked before planting to speed germination. It takes much less water to soak a sack of seeds than it would to keep soil moist for an equal amount of time. To soak, place seed in a porous, water-resistant bag, drop it into a large container, and cover it with water. When pre-germinating, it is critical to change water daily. Dump the water and allow the sack to drain before refilling with fresh water. Three days of soaking is sufficient. Dry seeds for 5 hours, then plant and water immediately. Buffalograss can tolerate more wet/dry cycling during germination than other lawn grasses. To reduce weed competition, let the soil surface dry before watering, but maintain adequate subsoil moisture.

Water regularly during the first year of establishment, being careful not to promote excessive weed growth. It is sensitive to weed killers during the seedling stage and, to some extent, the



Newly seeded buffalograss used in a naturalistic area.

rest of the first season. The best way to control weeds during this time is to mow often. Fertilize at a half rate only when needed to stimulate growth but not enough to promote lush growth or dark-green color.

After the first season, follow cultural practices for established buffalograss. Do not follow recommendations for other cool- or warm-season grasses. As a turfgrass, buffalograss is quite different from range, pasture, and other lawn grasses. With a little effort, you can establish and maintain a successful buffalograss lawn.

Buffalograss Uses

- Home lawns
- Playgrounds and parks
- Institutional turf
- Golf course fairways and roughs
- Airfields
- Naturalistic areas
- Erosion control
- Highway and roadsides
- Cemeteries

Buffalograss Advantages

- Less mowing, watering, and fertilizing than other lawn grasses
- Excellent heat, drought, and cold tolerance
- Thrives in full sun
- Tolerates dry, clay, and compacted soils
- Few insect and disease problems
- Little thatch accumulation

Buffalograss Disadvantages

- Lacks dark-green color some people prefer
- Does not grow in dense shade
- Does not grow well on poorly drained or sandy soils
- Weeds can be a problem
- Greens up later in the spring and goes dormant after the first fall frost

Buffalograss Care and Management Summary

Requirements:	Grows best in full sun. At least 6 to 8 hours per day of direct sunlight Good soil drainage is essential. Grows in clay soil. Not suited to sandy soils.	Watering:	Deep soak soil every 2 weeks during summer drought. Limit spring watering to a few deep soakings to replenish subsoil moisture during drought conditions. Soak soil before winter if fall is dry. Occasional or no watering for low maintenance areas.
Planting:	June and July are best. April-May if irrigation is not available. 1 to 2 lb seed/1,000 square feet. Plant seed ¼ to ½ inch deep.	Fertilizing:	Early June is best with a second application, if desired, in mid-July. 1 to 2 pounds actual nitrogen per 1,000 square feet/year, less on low-maintenance and natural areas.
Mowing:	2½ to 4 inches for home lawns. Low-maintenance areas may be mowed taller (4 inches or greater). Frequency is affected by amount of watering and fertilizing.	Weed control:	Avoid frequent watering, short mowing, and overfertilizing. Minimal early season watering.

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