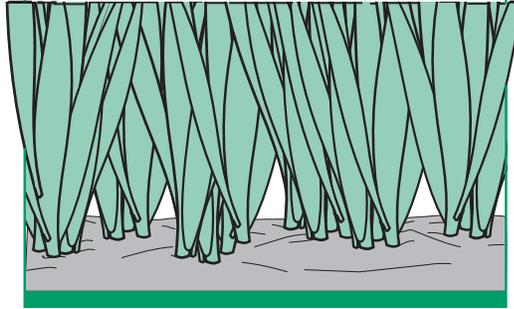


# BUFFALOGRASS LAWNS

Turfgrass



Buffalograss is a native prairie grass that can be used for low-maintenance lawns and other turf areas. It requires less mowing, watering, and fertilizing than traditional lawn grasses. Buffalograss is a fine-textured, low-growing, warm-season grass with gray-green color. Several cultivars can be seeded, but some can only be established from sod or plugs. Buffalograss spreads by stolons (runners) but not nearly as aggressively as bermudagrass. Once established, it survives extreme heat, drought, and cold.

Buffalograss grows best in full sun, but acceptable turf can be grown with 6 to 8 hours per day of direct sunlight. Thinner stands can be expected in semi-shady areas, and 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 tolerates these conditions better than other lawn grasses. Sandy soils, wet areas, and poorly drained soils generally are unsuited for buffalograss.

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

Of the prairie grasses, buffalograss is the best choice for use as a turfgrass. It is an interesting and attractive turf, especially suited for low-maintenance, naturalistic areas. It is important to recognize that buffalograss is not managed like other lawn grasses and has its own naturalistic appearance. One should learn to appreciate the natural look of this native prairie grass and not attempt to make it look like other lawn grasses.

## Care and Management

Buffalograss will survive on a suitable site with no care at all, but some mowing, watering, fertilizing, and weed control is required for quality turf. Buffalograss responds well to watering and fertilizing and produces a greener, thicker lawn. However, too much care may cause some harmful effects. Excessive weed competition is one indication that buffalograss

### Uses of Buffalograss

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

### Advantages of Buffalograss

- 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

### Disadvantages of Buffalograss

- Some people prefer a darker green color
- Doesn't grow in dense shade
- Doesn't grow 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

is being over-managed. Watering and fertilizing as for regular lawn grasses defeats the purpose of planting buffalograss.

**Watering:** The most beneficial time to water grass is during June, July and August when drought is most severe. That is when peak growth and stolon production occurs. Watering in the spring should be limited to drought conditions, otherwise it benefits weeds more than buffalograss. A good soaking at the end of a dry fall will help keep the roots and crown in good condition during the winter for a more vigorous turf the following spring.

Buffalograss should be watered less often than other lawns but the soil should be soaked thoroughly when it is watered. Frequent, shallow watering causes weeds, shallow rooting, crown rot, and other problems.

A deep watering should last about two weeks during hot, dry summer weather for most areas of the state. In western Kansas during severe drought, weekly watering may be necessary to maintain an acceptable green color for home lawns, but is not necessary for survival. In the higher rainfall areas of eastern and central Kansas, too much watering is more of a concern than too little, except during prolonged summer drought.

It does not harm buffalograss to reduce or stop watering during water restrictions, provided that it has not previously been on a program of frequent watering. Even after going completely dormant, normal growth resumes quickly with rainfall or irrigation. Low maintenance areas can be maintained without watering or with only one or two deep soakings during the summer. Sports fields, playgrounds, and other high traffic areas require more frequent watering to encourage regrowth during periods of intensive use.

Watering should be based on local weather, soil conditions, and desired maintenance level rather than on a fixed schedule. Weather varies greatly from western to eastern Kansas, between years, and within a single growing season. Also, various soils take in and hold water differently. With buffalograss, there is little concern for inadequate watering. The goal is to apply only enough water for moderate growth and color.

**Fertilizing:** The amount of fertilizer for buffalograss ranges from 0 to 2 pounds of actual nitrogen per 1,000 square feet per season, depending on the desired level of maintenance. One pound is recommended for average conditions. Fertilizer directly affects the amount of mowing, watering, and weed control. Exceeding 2 pounds of nitrogen per season will probably defeat its low maintenance advantage and lead to other problems. The kind or brand of nitrogen fertilizer makes little difference with buffalograss, although a controlled release form is preferable to avoid excessive flushes of growth.

A soil test should be done to determine phosphorus and potassium requirements. If soil test recommendations are unavailable, use nitrogen only or a fertilizer with a small amount of phosphorus and an intermediate amount of potassium in relation to nitrogen. Do not use a balanced fertilizer such as 10-10-10 or 13-13-13 on a continual basis. Excessive phosphorus will encourage broadleaf weeds and tie up some

of the essential micronutrients. Phosphorus, if needed, should be incorporated before planting or in conjunction with core-aeration.

Fertilize buffalograss during its active growth cycle. June is the best time to fertilize, when stolon growth begins. Early spring fertilizing usually encourages weed growth at a time when buffalograss does not compete well. Although people are anxious for early green grass after the winter, encouraging unnaturally early growth through fertilizing, watering, and short mowing is a major cause of weeds and other problems.

### Fertilizing Buffalograss

	lb. N/1,000 sq.ft./year
Lowest-maintenance areas	0– <sup>3</sup> / <sub>4</sub>
Average lawn maintenance	1
Higher-maintenance lawns	2

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

**Mowing:** Buffalograss does not require frequent mowing unless it is watered frequently and fertilized excessively. It tolerates a wide range of mowing heights and because it is naturally low growing (4 to 8 inches), it may not have to be mowed at all for some uses.

Buffalograss can be mowed short, but taller mowing increases its drought resistance and competitiveness against weeds. In general, maintenance is reduced when the turf is mowed taller. Sometimes buffalograss is mowed only to remove the male pollen flowers produced above the foliage. In naturalistic areas, the male pollen flowers add to the natural beauty and interest of this native grass. It may be necessary to mow weeds that outgrow the buffalograss.

Mow frequently enough so no more than one-third of the foliage is removed at one time. Shorter turf must be mowed more frequently. Buffalograss is not a natural thatch producer and it is not necessary to collect the clippings. Clippings do not cause thatch. Leaving them on the lawn saves about one-third in mowing time and recycles nutrients, returning them to the soil.

### Mowing Heights for Buffalograss

Home lawns	2 to 3 inches
Golf course fairways	1 inch
Low maintenance parks, grounds	3 inches or higher
Natural areas	None except for spring clean-up when growth initiates

Burning off the dead winter foliage in the spring is not a recommended practice for buffalograss lawns. Many city ordinances regulate or prohibit this practice. Burning can quickly remove dead foliage, but there is danger of catching evergreens and buildings on fire. Burning also leaves a

black sooty residue that can be tracked or blown around the neighborhood and into residences. Simply mowing off the old foliage is a safer alternative. Do not burn or mow off the foliage early in the season to promote early growth because that will increase weed germination before buffalograss begins active growth.

**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. In higher rainfall areas and when turf is frequently watered, it becomes more difficult for buffalograss to compete with weeds.

The main focus of a weed control program should be to minimize weed competition with timely and correct cultural practices—watering, fertilizing and mowing. That is the most effective, least costly, long-term approach. Over-managing buffalograss will favor weeds over the buffalograss.

### Causes of Weeds in Buffalograss

- Frequent watering
- Early season watering
- Extremely short mowing
- Too much fertilizer
- Fertilizing too early in the season

Cool-season weeds often invade buffalograss in the spring and fall while it is dormant and unable to compete. Weeds also may out-compete buffalograss during establishment when extra water is applied to germinate the seed. Mowing may be needed during these times to keep weeds from shading buffalograss seedlings.

It is better to tolerate a few weeds that occur in nature rather than expect a totally weed-free buffalograss turf. Achieving that goal could involve excessive herbicide application. Although many lawn weed control chemicals are safe and effective, relatively few products contain specific buffalograss labeling at the date of this publication. Kansas State University cannot endorse off-label products.

**Insect and Disease Problems:** White grubs are the most common insect problem in buffalograss. Occasionally, cyclic and localized outbreaks of buffalograss webworm occur in the state. For additional information, consult the K-State Research and Extension publication, *Lawn and Turf Insect Management*, MF-755.

Diseases are generally not a problem in buffalograss. When they occur, it usually is a result of improper watering and/or fertilizing.

### Buffalograss Varieties

Seeded Types	Vegetative Types
Tatanka	378
Cody	315
Bison	Buffalawn
Plains	609
Sharp's Improved	Prairie
Top Gun	
Texoka	

### Planting Buffalograss

Buffalograss is a warm-season grass that should be planted in late spring or early summer. When irrigation is not available, April and May planting is recommended to take advantage of spring rainfall for seed germination. When irrigation is available, summer planting (June through July) is preferred. Seed will germinate in about a week after mid-June, whereas early spring plantings may require two to three weeks for germination. Summer plantings tend to be less weedy because of more rapid establishment. Seed is the most common method of establishment, although vegetative methods (plugs or sod) can be used. Properly treated seed should be purchased from a reputable dealer. Properly treated seed has better, faster, and more uniform germination. Be aware that some sources claim treated seed, but it may be by a shortcut method or merely dyed to appear as treated seed. Check the seed label for the source, method of treatment, and other information.

The cost of buffalograss seed often is a concern. However, the actual cost is about the same as planting turf-type fescue considering that it requires 1 to 2 pounds of seed per 1,000 square feet for a buffalograss lawn compared to 6 to 8 pounds of fescue. Use the following formula for comparison:

Comparing seed cost for planting buffalograss:  
 \_\_\_\_\_ lbs required for \_\_\_\_\_ grass × \_\_\_\_\_ seed cost/lb  
 = actual seed cost \$ \_\_\_\_\_

Seed cost is a small consideration for a permanent turf. In the long run, watering, mowing, fertilizing, weed control, and other maintenance costs are much higher. Do not base turfgrass selection solely on seed cost.

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. Less seed can be used on large areas if cost is a factor. Buffalograss spreads and becomes thicker each year. Plant seed ¼ inch deep when irrigated, or up to ½ inch deep if soil moisture is limited. Seed may be drill-seeded with a grass drill or broadcast and worked into tilled soil. Often, it is better to have the planting done by a professional, but some people enjoy the work and have good success.

Most purchased seed has been pretreated to enhance germination. However, some people may elect to soak the seed prior to planting to speed germination. The amount of water for soaking a sack of seeds is considerably less than would be required to keep the soil moist for an equal period of time. Seed to be pregerminated should be placed in a water resistant but porous material. The bag and seeds are then placed in a large container and covered with water. A critical factor in pre-germinating seed is that the water must be changed each day. Dump the container of water, allow the sack of seeds to drain, and then refill with fresh water. Three days

of soaking is sufficient. Dry the seeds for 5 hours and then plant and water them into the soil without delay. Buffalograss can tolerate more wet/dry cycling during germination than other lawn grasses. Let the soil surface become dry before watering again, but maintain adequate subsoil moisture. This practice also helps reduce weed competition.

Buffalograss will require more frequent watering during the first year of establishment, but care must be taken not to generate excessive weed growth. Buffalograss is especially sensitive to weed killers during the seedling stage and, to a lesser degree, for the remainder of the first season. Mow as often as needed to keep weeds in check. Short mowing may

be necessary during seedling establishment. Fertilize at half rate only when needed to keep the buffalograss growing actively; avoid promoting excessively lush growth or dark-green color. Some professionals do not recommend fertilizing at all during the first year of establishment, especially for nonirrigated areas.

After the first season, follow cultural practices as previously outlined for established buffalograss. Do not follow advice or recommendations for other grasses. Growing buffalograss as a turfgrass is quite different from range, pasture and other lawn grass.

## Care and Management Summary

Requirements:	Grows best in full sun Should have at least 6 to 8 hours per day of direct sunlight Good soil drainage is essential Will grow in clay soil Not suited to sandy soils
Planting:	June and July best April-May if irrigation is not available 1 to 2 lb. seed/1,000 square feet Plant seed ¼ to ½ inch deep
Mowing:	2 to 3 inches for home lawns Low maintenance areas may be mowed taller Frequency is affected by amount of watering and fertilizing
Watering:	Deep soak soil every 2 weeks during summer drought Spring watering should be limited 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
Fertilizing:	Early June is best; second application, if used, during mid-July 1 to 2 pounds actual nitrogen per 1,000 square feet/year, less on low maintenance and natural areas
Weed control:	Avoid frequent watering, short mowing and overfertilizing Minimal early season watering

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