Colorado State University Extension

Colorado Master Gardener[sm] Program

CMG GardenNotes #565

Buffalograss Lawns

Outline:

Buffalograss (*Buchloë dactyloides*) is a perennial, warm-season grass species. It is a sod-forming grass that spreads by stolons (aboveground stems) which root at nodes, forming new plants. Buffalograss is native to the North American Great Plains, and displays a wide range of adaptability. An important range and pasture grass for both wild and domesticated animal herds, its use as an alternative lawn grass was proposed as early as the 1930s. Older range-type varieties form an open, low-density turf when mowed; the newer, turf-type buffalograss varieties can form a dense, attractive turf during its active growing season.

Because of its warm-season physiology, this species becomes dormant with the onset of cold temperatures in the fall and breaks dormancy in mid to late spring, well after bluegrass and fescue lawns become green. Buffalograss grows most actively during from late May through early September, becoming brown and dormant with the first hard frost in the fall. Its long dormant period and reputation as an expensive and difficult-to-establish lawn has made it a less-attractive lawn option for many homeowners.

However, the development of attractive turf-type cultivars and greater availability of less expensive sod and plugs has generated new interest in this grass for home lawns. These new varieties are darker green, form a dense, short-growing turf, and are more resistant to weed invasion than previously used varieties. Those who choose to plant newer buffalograss varieties find that their lawn can remain green and attractive on 50-75% less irrigation than Kentucky bluegrass, and that buffalograss requires less frequent mowing, will thrive when fertilized only once or twice yearly, and has good resistance to weed invasion.

Available Cultivars

Turf-type seeded cultivars of buffalograss that will produce a good quality lawn include: Bison, Bowie, Cody, Plains, and Topgun. The varieties Texoka and Sharp's Improved will produce a lesser quality lawn.

Certain varieties of buffalograss are only available in vegetative form (sod or plugs). These varieties will form the best quality buffalograss lawn, but are more expensive than using the seeded types. Commercially available vegetative types include: Prairie, 609, Legacy, Prestige, and Turffalo. Prairie and 609 will suffer significant winterkill during most winters if planted along the Colorado Front Range, and are not recommended except in Pueblo and southeastern CO and in the Grand Junction area. Legacy, Prestige and Turffalo have proven to be quite winter hardy throughout Colorado and will produce high quality buffalograss turf.

Buffalograss Establishment and Management

Acceptance of buffalograss in the marketplace is critically dependent upon the knowledge of proper establishment and management. While it can be considered a low-maintenance grass, proper management is necessary to realize the full benefits of the species. ***The amount of water required to establish a buffalograss lawn from seed, sod or plugs will be equal to (and occasionally greater than) that amount required to establish a bluegrass or tall fescue lawn.***

Seeding

Proper seedbed preparation is critical in obtaining uniform stands. Seed should be planted to half-inch depth (drill seeding is preferred). If broadcast, seed should be covered with ¼ to ½ inch of soil to obtain a reasonable stand. Seeding should begin in mid-late May or early June. Seeding too late in the season (beyond August 1) may result in winter seedling loss. Use a seeding rate of three to five pounds seed/1,000 square feet.

With warm soil and consistent irrigation, germination and appearance of seedlings will occur in seven to 21 days. Preemergent herbicides should NOT be used at the time of seeding, but may be safe after seed has germinated. Apply one pound of nitrogen (N) per 1,000 square feet two to three weeks after the seedlings appear; fertilize again about six weeks later. Irrigate to prevent excessive drying and to maintain active grass growth.

Plugging

The use of pre-rooted plugs can provide complete cover within eight to 12 weeks after planting. Proper soil preparation is essential for successful establishment using plugs. Plant plugs on 12 to 18 inch centers following the last spring frost and at least six weeks prior to the first expected fall frost. Apply one pound of nitrogen per 1,000 square feet using a starter-type fertilizer at planting, and again about six to seven weeks after planting. Irrigate to maintain a moist surface for seven to ten days, and to maintain active grass growth thereafter. The preemergence herbicide pendimethalin (sold as Pre-M or Scotts Halts/Crabgrass Preventer) can be used to prevent weed invasion and is safe to use at the time of planting.

Transplanted plugs will often go dormant (become brown) after planting, even with adequate irrigation. This is quite normal. T he grass will come out of dormancy after the plugs have formed a healthy root system. *It is important that the plugs and soil be kept moist after planting, even though the plugs may appear to be dead or dormant.*

Sodding

Buffalograss can be sodded like many other grass species to produce an instant lawn. Adequate soil preparation and careful post-plant care will aid in sod establishment. Transplanted buffalograss sod should be irrigated like any other transplanted sod - enough water to maintain a moist, but not saturated, rootzone under the sod. It is very common for buffalograss sod to quickly turn brown following transplanting, even when irrigated. It may remain dormant for one to two weeks while new roots are being formed. New, white root growth can be seen on the bottom of the sod after a few days of watering, even though the top of the sod may be entirely brown in color. After enough rooting has occurred, the buffalograss will begin to form new leaves and green up. *Proper irrigation is crucial during this root formation period.*

Fertilization

Color and growth of buffalograss will improve with fertilization, but little advantage can be seen beyond two pounds of total nitrogen per 1,000 square feet per growing season. A suggested application schedule is one-half to one pound of nitrogen per 1,000 square feet in late May to mid June, and again in late July. Excessive fertilization (more than two pounds of nitrogen per 1,000 square feet per year), especially in combination with excessive irrigation, can cause serious weed invasion in the buffalograss lawn. Buffalograss is sometimes prone to iron chlorosis (yellowing) on high pH soils; supplemental iron applications will help to prevent this problem.

Mowing

Weekly mowing at two inches will be adequate for irrigated buffalograss lawns. Buffalograss that is supplied with only infrequent irrigation or is not irrigated will require less frequent mowing. Left unmowed, buffalograss produces little growth above three to six inches and will remain attractive.

Irrigation

Once established, buffalograss can survive without irrigation. However, however unirrigated buffalograss will become dormant during most summers, and will be prone to weed invasion while dormant. Buffalograss lawns require a minimum of one to two inches of rainfall or irrigation every two to four weeks during the summer to maintain active growth and be acceptably green. Deeper, infrequent irrigation (for example, one inch every two to four weeks, depending on rainfall) will produce a good quality buffalograss lawn and discourages weed invasion. Irrigation can begin in mid- to late-May if the spring is dry; earlier season irrigation will not speed spring green-up and will encourage weed growth.

Weed Management

Weed invasion is the most common and frustrating problem in the buffalograss home lawn. Buffalograss appears to have adequate seedling and/or established turfgrass tolerance for benefin (Balan), bensulide (Bensulide), carfentrazone (Quicksilver), clopyralid (Lontrel), imazapic (Plateau), isoxaben (Gallery, Portrait), metsulfuron (Manor), oxadiazon (Ronstar), pendimethalin (many, including Pre-M, Scotts Crabgrass Preventer/Halts), prodiamine (Barricade), quinclorac (Drive) when the label use recommendations were followed. Tenacity appears safe on established buffalograss (but is not labeled for this use).

Some turf injury is likely when the following are used: 2,4-D, dicamba, dithiopyr (Dimension), fenoxaprop-ethyl (Acclaim Extra), mecoprop/MCPP, MSMA, oryzalin (Surflan), sethoxydim (Poast, Vantage) , siduron (Tupersan), triclopyr (Turflon), triclopyr + 2,4-D (Turflon D), and triclopyr + clopyralid (Confront). Buffalograss can be especially sensitive to off-the-shelf herbicides (especially 2,4-D) bought by homeowners for the control of dandelions and other broadleaf weeds, particularly when these herbicides are applied during periods of very warm temperatures (80s and 90s). These products can be safely used on fully dormant buffalograss in spring or fall (spot treat only; do not broadcast apply).

One effective (but risky) method of controlling winter/early spring weeds in buffalograss is to apply glyphosate (Round-up, Kleen-up) when the buffalograss is **TOTALLY** brown and dormant, but while the weeds are green and growing (March to early April). Glyphosate will work better when applied on a warm day (55-60 degrees F or greater) and weeds are not drought-stressed. Remember that glyphosate will kill any green buffalograss which it contacts. When applied to dormant buffalograss, the glyphosate should be applied as a very light mist (use the pre-mixed, hand-pump products if possible) and only on those spots where the weeds are growing. Glyphosate applied too heavily will move down onto green stolons in the buffalograss lawn, causing dead spots in the lawn. **DO NOT APPLY GLYPHOSATE ONCE BUFFALOGRASS BEGINS TO SHOW SIGNS OF SPRING GREEN-UP!**

Disease Management

No diseases have been observed as causing problems on buffalograss lawns in Colorado.

Insect Management

Mealybugs (*Tridiscus sporoboli* and *Trionymus* sp.) and a short-winged species of chinch bug (*Blissus* sp.) have been found in Nebraska buffalograss lawns, but have not yet caused problems in Colorado. Leafhoppers and grasshoppers are common nuisance pests, but do not generally damage buffalograss lawns.

Where Buffalograss Is Not Well-Adapted.

- Moderate to very shady locations (more than ½ day complete shade).
- Saline soils (greater than 6-8 mmhos/cm salinity).
- Above approximately 6500 feet elevation. A protected, sunny, south- or west-facing exposure may allow buffalograss to be used successfully at 6500-7000 feet, but the growing (green turf) season will be short.
- Very droughty, sandy soils - unless supplemental irrigation is provided.
- Small, heavily used home lawns, athletic fields (soccer, football), or other situations where foot or vehicular traffic will be concentrated and constant.

Inclusion of chemical or trade names does not imply any product endorsement, nor does exclusion imply criticism, by the author or Colorado State University. Follow all label instructions when using any pesticide.

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- For additional information on lawn care, refer to csuturf.colostate.edu.
- Colorado Master Gardener *GardenNotes* are available online at www.cmg.colostate.edu.
- Colorado State University, U.S. Department of Agriculture and Colorado counties cooperating.
- Extension programs are available to all without discrimination.
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