



## Buffalograss Fairways



*Creeping bentgrass, Kentucky bluegrass, and buffalograss are compared under 12 fairway management scenarios at the University of Nebraska-Lincoln.*

Fairways are the largest intensively managed part of golf courses and are subsequently ideal for cost- and resource-saving initiatives. Fairways comprised of creeping bentgrass, perennial ryegrass, or Kentucky bluegrass are preferred over buffalograss, primarily because most golfers prefer their darker green color for a few more months of the year. However, there seems to be a bias against buffalograss from its years of use in low-maintenance areas. We tend to forget that while buffalograss will persist under a low-maintenance program, it also, can provide a quality playing fairway surface with slight increases in fertilizer and irrigation (Figure 1).

It is important to note that buffalograss is not for every golf course. However, some facilities just need a reliable playing surface that is appealing but, most importantly, also can persist in heat, drought and with minimal pesticide inputs. For facilities that struggle to keep cool-season fairways playable during summer, there may not be a better fairway turf than buffalograss.

A USGA-funded project conducted at the University of Nebraska is evaluating the performance of fairways comprised of creeping bentgrass, Kentucky bluegrass, or buffalograss under a variety of management conditions. Just one year into the study, results have already shown what most expected to see – creeping bentgrass and Kentucky bluegrass perform well when intensively managed. However, buffalograss has outperformed these species under a low-maintenance regime. This research will provide golf courses with

information about the performance and potential resource savings possible with buffalograss. The resource savings associated with a buffalograss fairway from the first year of this research is included in the table below.

Turf Species	Irrigation	Fertilizer	Pest Control?	Est. Total Cost (per/acre)	Relative Quality Level
Creeping bentgrass	80% ETo 9.6 inches 259,705 gal/acre \$642.32/acre	4 lbs N/1,000ft <sup>2</sup> /year \$136.36/acre	Yes \$236.49/acre	\$1015.17	Highest
			No \$0.0/acre	\$778.68	Low
		Threshold-based \$42.61/acre	Yes \$236.49/acre	\$921.42	Highest
			No \$0.0/acre	\$684.93	Low
		Unfertilized \$0.0/acre	Yes \$236.49/acre	\$878.81	High
			No \$0.0/acre	\$642.32	Lower
	No supplemental 0.0 inches 0 gal/acre \$0.0/acre	4 lbs N/1,000ft <sup>2</sup> /year \$136.36/acre	Yes \$236.49/acre	\$372.85	Lower
			No \$0.0/acre	\$136.36	Lower
		Threshold-based \$42.61/acre	Yes \$236.49/acre	\$279.1	Lower
			No \$0.0/acre	\$42.61	Lower
		Unfertilized \$0.0/acre	Yes \$236.49/acre	\$236.49	Lowest
			No \$0.0/acre	\$0	Lowest
Kentucky bluegrass	80% ETo 9.6 inches 259,705 gal/acre \$642.32/acre	4 lbs N/1,000ft <sup>2</sup> /year \$136.36/acre	Yes \$151.58/acre	\$930.26	Highest
			No \$0.0/acre	\$778.68	Low
		Threshold-based \$42.61/acre	Yes \$151.58/acre	\$836.51	Highest
			No \$0.0/acre	\$684.93	Low
		Unfertilized \$0.0/acre	Yes \$151.58/acre	\$793.9	High
			No \$0.0/acre	\$642.32	Lower
	No supplemental 0.0 inches 0 gal/acre \$0.0/acre	4 lbs N/1,000ft <sup>2</sup> /year \$136.36/acre	Yes \$151.58/acre	\$287.94	Lower
			No \$0.0/acre	\$136.36	Lower
		Threshold-based \$42.61/acre	Yes \$151.58/acre	\$194.19	Lower
			No \$0.0/acre	\$42.61	Lower
		Unfertilized \$0.0/acre	Yes \$151.58/acre	\$151.58	Lowest
			No \$0.0/acre	\$0	Lowest
Buffalograss	60% ETo 6.8 inches 183,997 gal/acre \$455.07/acre	2 lbs N/1,000ft <sup>2</sup> /year \$68.18/acre	Yes \$38.86/acre	\$562.11	Medium high
			No \$0.0/acre	\$523.25	Medium high
		Threshold-based \$42.61/acre	Yes \$38.86/acre	\$536.54	Medium high
			No \$0.0/acre	\$497.68	Medium high
		Unfertilized \$0.0/acre	Yes \$38.86/acre	\$493.93	Medium high
			No \$0.0/acre	\$455.07	Medium high
	No supplemental 0.0 inches 0 gal/acre \$0.0/acre	2 lbs N/1,000ft <sup>2</sup> /year \$68.18/acre	Yes \$38.86/acre	\$107.04	Medium high
			No \$0.0/acre	\$68.18	Medium high
		Threshold-based \$42.61/acre	Yes \$38.86/acre	\$81.47	Medium high
			No \$0.0/acre	\$42.61	Medium high
		Unfertilized \$0.0/acre	Yes \$38.86/acre	\$38.86	Medium
			No \$0.0/acre	\$0	Medium

## Bottom Line

The best quality plots in 2017 were the creeping bentgrass and Kentucky bluegrass with ET-based irrigation, standard or threshold-based fertilizer applications, and standard pest control strategies. All of the possible buffalograss management scenarios were rated only slightly lower. Regardless of management regime, buffalograss provided average quality that has been similar to, and only slightly less than, more intensively managed cool-season grasses. Buffalograss fairways may not be for everyone, but investing in a conversion may be worthwhile for facilities struggling to fund fungicide and water budgets.

Source: Dr. Cole Thomson, University of Nebraska

Additional Information:

[Buffalograss Savings](#)

[Buffalograss Breeding and Genetics](#)

[The Next Generation of Buffalograss Cultivars](#)

[Buffalograss on the Golf Course](#)

[Buffalograss: Tough Native Turfgrass](#)