

Use of Bermudagrass as a Summer Annual for Emergency Turf

We've all had these bare-ground or thin-turf areas that somehow didn't get replanted last fall. Now spring has moved into the dog days of summer and it's too late to get that maturing stand of cool-season grass capable of withstanding summer stress.

Instead of fighting summer annuals and summer stress, why not plant a warm-season turfgrass that will behave as a summer annual? There are some pretty decent seeded bermudagrasses that provide a nice-looking, tough turf that outpaces crabgrass, thrives in the heat, and is drought-tolerant.

Having grown up and lived in Iowa for 37 years, I recognize that it's a lot easier to establish cool-season grass during June in northern Illinois than in southern Illinois. Regardless, wouldn't you rather wait until August or better yet, September to do the seeding? If you do it in June, you have to contend with rapid soil-moisture loss and possible loss of stand if you miss irrigation at a critical time. If you seed in June, you might have to contend with summer diseases that can devastate thousands of square feet of seedling turf overnight. And you have a drought-susceptible turf all summer long, even if it survives. Worst of all, you have to fight summer annual grasses. And in southern Illinois we have goosegrass, which actually crowds out crabgrass. Imagine what it can do to Kentucky bluegrass. It ain't pretty.

Instead of fighting summer annuals and summer stress, why not plant a warm-season turfgrass that will behave as a summer annual? Bermudagrass is aggressive. Many consider it a weed in its own right. But there are some pretty decent seeded bermudagrasses that provide a nice-looking, tough turf that outpaces crabgrass, thrives in the heat, and is drought-tolerant.

"But what if it survives the winter and invades my beautiful bentgrass, bluegrass and ryegrass?" It won't. Do you see any bermudagrass in your area? The only one I know of that has ever survived in the north is 'Guymon,' and that was under a 2- to 3-inch clip east of Lake Michigan with its temperature moderation. Any bermudagrass that is cut short simply lacks the energy to remain alive through a five-month dormancy. It doesn't matter if the winter is hard or soft.

Some professors you might know, David Minner of Iowa, Roch Goussain of Nebraska and Steve Keely of Kansas, conducted a cooperative two-year study using bermudagrass as a summer annual (*Iowa Turfgrass Research Report*, 2000). You might have heard of it. Here's their report of the Iowa story in a nutshell. On July 2, Minner planted some of the best-known seeded bermudas into a turf area killed with glyphosate after verticutting several times to expose about 50% of the soil surface. And he planted a perennial ryegrass check. By August, he had virtually complete bermudagrass turf cover with all the bermudagrass varieties and 23% cover with the perennial ryegrass. On August 24, he slit-seeded a perennial ryegrass into half of each plot. The following year he observed no surviving bermudagrass during June. In early July, he again slit-seeded bermudagrass into the dead bermuda as well as the surviving perennial ryegrass. He applied simulated traffic during August and September. During September, he recorded 100% bermudagrass cover in plots not seeded with perennial ryegrass and 10 to 28% bermuda, 72 to 90% perennial ryegrass in the plots with mixed stand (adding up to 100% covers). The check plot that received only perennial ryegrass the entire two years had a 90% cover. By

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December, the bermuda and bermuda/rye plots had 5 to 17% exposed soil while the ryegrass plot had 37% exposed soil. I think this research demonstrates effectively that bermudagrass can do the job through the summer, leave room for perennial ryegrass going into fall, and be out of the picture after winter kill.

Will Kentucky bluegrass or bentgrass do just as well as ryegrass with bermudagrass in northern Illinois? The best-looking, low-management turf that stays green year-round in southern Illinois is bermuda/blue. Both of these species are spreaders with moderate shoot density, which is very important. It allows them to coexist, spreading into each other as the seasons transition, providing a high level of uniformity. I have never seen a bermuda/bent situation. Given the high shoot density of bentgrass, it is probable that there would be segregation of the two species within the turf. But for you folks up north, that doesn't matter. The bermudagrass is dead by March. And the preexisting stand of dying bermuda would provide a nice mulch to slit-seed into, or verticut and overseed into during the fall, no matter what cool-season grass you want. And on slopes there would be the added advantage of a rooted mulch to prevent soil erosion during the rainy seasons while the cool-season grass establishes. Remember, the bermudagrass was started during the drier season.

In case I have actually convinced you to try bermudagrass as a summer annual, see Table 1, Table 2 and Table 3 for further details on varietal performance and turf treatment.

Bermudagrass loves nitrogen, even more than other turfgrasses. In fact, it's absolutely passionate about it, and goes into withdrawal without it. So if you push it with nitrogen, you can get a fast, full cover from a very young bermudagrass turf within a few weeks after germination. And if you are thinking you can get faster established turf for an emergency by laying a cool-season grass sod, don't bet on it. And you will spend a lot more money laying sod.

Another note for the sod growers in the audience: you might consider having a small area of

bermuda sod ready for those summer repairs. It knits in a lot faster during the summer than cool-season grasses. You then come back in September to replace it with a cool-season grass sod. You double your sale per sight and get greater customer satisfaction.



Table 1.
Seeded bermudagrasses and their relative turf qualities.
(from NTEP data 1997-2001)

TURF CULTIVAR	QUALITY
Riviera	6.6
Princess	6.1
Transcontinental	5.6
Southern Star	5.4
Blackjack	5.4
Majestic	5.3
Savannah	5.3
Sydney	5.2
Shangri La	5.1
Pyramid	5.0
Sundevil	5.0
Blue-muda	5.0
Numex-Sahara	5.0
Mirage	4.9
Jackpot	4.9
Arizona Common	4.5
LSD	0.2

New seeded cultivars that remain to be proven are: Yukon, Lapaloma, Sunbird, Panama, Sunstar and Mohawk

Table 2.
Preemergent herbicides for warm-season grasses, only.

Isoxaben
Metolachlor
Napropamide
Oryzalin
Simazine

Table 3.
Postemergent herbicides for bermudagrass.

BROADLEAF WEED CONTROL	GRASS WEED CONTROL
Atrazine	Asulam
Imazaquin	Diclofop
Metsulfuron	DSMA,
Simazine	MSMA,
Pronamide	CMA
Quinclorac	Metribuzin
Foramsulfuron	

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