COMPARISON OF SEEDED AND VEGETATIVELY PLANTED BERMUDAGRASSES

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Background. There has been a great deal of interest in bermudagrass established from seed as opposed to sprigs. In addition to being less expensive, seeded varieties can be used on small acreages, steep slopes, and cut-over timberland where good seedbed preparation necessary for sprigging, is not economical or feasible. Trials conducted in Georgia show yields of some of the new seeded varieties similar to Coastal bermudagrass. Some of these new varieties are selected bermudagrass lines and others are mixtures of giant (old NK 37) bermudagrass which is a diploid and common bermudagrass which is a tetraploid. 'Cheyenne' and 'KF-CD 194' bermudagrass are selected lines. 'Ranchero Frio' is a mixture of Cheyenne and giant bermudagrass. 'Tierra Verde' is 50% hulled and unhulled giant bermudagrass and 50% hulled and unhulled common bermudagrass. 'Texas Tough' is a mixture of 33% giant bermudagrass and 67% common bermudagrass. Recommended seeding rate is 5 to 10 lb/acre of hulled seed planted 0 to 1/2 in. deep.

A study comparing some of the seeded bermudagrass varieties, vegetatively propagated Coastal and Tifton 85 bermudagrass, and Pensacola and Tifton 9 bahiagrass, were planted May 2, 1997 at the TAMU Agricultural Research and Extension Center at Overton. Four additional entries were planted in April, 1999.

Research Findings. During the fifth year of the study, Tifton 85 continues to be the most productive entry (Table 1). The very poor early production at the first harvest on April 24 and the excellent late production at the last harvest on October 4 are typical of Tifton 85. The excellent drought tolerance of Tifton 85 is reflected in the 2300 lb/acre yield on August 28 that was 2 to 7 fold greater than the other entries. Only 1 in. of rainfall was recorded from July 1 to August 15, 2002. Most of the seeded bermudagrasses, including common, produced yields similar to Coastal. Wrangler and giant bermudagrasses, Pensacola and Tifton 9 bahiagrasses, and kikuyugrass were the least productive. This same trend is consistent with the five year average (Table 2). Tifton 85 was the most productive bermudagrass, most seeded bermudagrasses had yields similar to Coastal bermudagrass, and bahiagrasses were the least productive.

Application. Tifton 85 is the recommended bermudagrass because of high productivity, excellent drought tolerance, and good fall production. Its thicker stems do require longer drying when cut for hay. The seeded varieties and mixtures were as productive as Coastal bermudagrass.

able 1. Warm-season	perennia	ıı gra	ss varie	_	at yieids Harvest								
F ntm.	A n.r. O	4	lung					00	Oat	4	Total		
Entry	Apr 24 June 11				July 17 Aug 28 ——Ib dry matter/acre—			Oct 4		Total		_	
Tiff a.m. O.C. b. a.m.m d. a	407	a† I	4000						5504	_	45000	_	
Tifton 85 bermuda	187	_	4692		2911		2296		5594		15680		_
Cheyenne	1385		4453		2867	-	956		3770		13431		
CD 90160	1353		4539		2362		778		4363	-	13395		
Ranchero Frio	977		4006	-	2393		985	-	4068		12428		
Tierra Verde	505		3221	-	2517		1199		4306	_	11748		
Coastal	494		3938		2361		847		3910		11549		
Common bermuda	887		4164		2080		851		3370		11352		
Texas Tough	570	-	3327		1905		1063		4128		10993		
KF Seeds	452		3188		1744		946		3744		10075		
Pensacola bahia	224	_	2254		2014		413		2777	_	7682		
Wrangler bermuda	945		2963	-	879		245		2518	_	7550		
Tifton 9 bahia	198	-	2120		1831		436		2813		7398		-
Giant bermuda	250		2961	_	630		397		2405	-	6643		
Kikuyugrass [†] Yields within a harvest t	249		2561		559		297		1874	_	5539		
Table 2. Warm-season	perennia	l gra	ss vield	s fro	m 1997	thro	ugh 2001	1.					
Entry	1997								Averag	е			
,					lb. c	lry m	atter/ac	re —					
Tifton 85 bermuda1	5044	a ²	8064	а	12915	а	12032	а	15680	а	10747	а	
CD 90160 bermuda	2737	b	3550	d	9696	bc	10347	b	13395	а-с	7945	b	
Texas Tough bermuda	2480	bc	5262	b	11749	ab		e-g	10993	c,d	7688	b	
Texas Tough bermuda Ranchero Frio bermuda	2480 1943		5262 2912		11749 8984		7956 9991		10993 12428		7688 7251		\dashv
•		cd		de		С	7956	bc	12428	b-d	7251	b,c	
Ranchero Frio bermuda Tierra Verde bermuda	1943	cd cd	2912	de bc	8984	c c	7956 9991	bc d-f	12428 11748	b-d b-d	7251 7218	b,c b,c	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda ¹	1943 2085	cd cd d	2912 4885	de bc cd	8984 9054	c c cd	7956 9991 8318	bc d-f b-d	12428 11748 11549	b-d b-d b-d	7251 7218 6969	b,c b,c b,c	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda ¹ Cheyenne bermuda	1943 2085 1611 2408	cd cd d bc	2912 4885 3739 3430	de bc cd de	8984 9054 8507 6640	c c cd d-f	7956 9991 8318 9440 8928	bc d-f b-d c-e	12428 11748 11549 13431	b-d b-d b-d a,b	7251 7218 6969 6967	b,c b,c b,c b,c	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda ¹ Cheyenne bermuda KF CD194 bermuda	1943 2085 1611 2408 1914	cd cd d bc cd	2912 4885 3739 3430 3664	de bc cd de cd	8984 9054 8507 6640 7407	c c cd d-f c-e	7956 9991 8318 9440 8928 7525	bc d-f b-d c-e fg	12428 11748 11549 13431 10075	b-d b-d b-d a,b d,e	7251 7218 6969 6967 6117	b,c b,c b,c c	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda ¹ Cheyenne bermuda KF CD194 bermuda Pensacola bahia	1943 2085 1611 2408 1914 583	cd cd d bc cd e	2912 4885 3739 3430 3664 2167	de bc cd de cd e	8984 9054 8507 6640 7407 4771	c cd d-f c-e f	7956 9991 8318 9440 8928 7525 6809	bc d-f b-d c-e fg gh	12428 11748 11549 13431 10075 7682	b-d b-d b-d a,b d,e e,f	7251 7218 6969 6967 6117 4402	b,c b,c b,c b,c c d	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda Cheyenne bermuda KF CD194 bermuda Pensacola bahia Tifton 9 bahia	1943 2085 1611 2408 1914	cd cd d bc cd e	2912 4885 3739 3430 3664	de bc cd de cd e	8984 9054 8507 6640 7407 4771 5470	c c cd d-f c-e f ef	7956 9991 8318 9440 8928 7525 6809 5967	bc d-f b-d c-e fg gh h	12428 11748 11549 13431 10075 7682 7398	b-d b-d b-d a,b d,e e,f	7251 7218 6969 6967 6117 4402 4361	b,c b,c b,c b,c c d	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda Cheyenne bermuda KF CD194 bermuda Pensacola bahia Tifton 9 bahia Common bermuda ³	1943 2085 1611 2408 1914 583	cd cd d bc cd e	2912 4885 3739 3430 3664 2167	de bc cd de cd e	8984 9054 8507 6640 7407 4771 5470 383	c cd d-f c-e f ef	7956 9991 8318 9440 8928 7525 6809 5967 7445	bc d-f b-d c-e fg gh h fg	12428 11748 11549 13431 10075 7682 7398 11352	b-d b-d a,b d,e e,f f b-d	7251 7218 6969 6967 6117 4402 4361 6393	b,c b,c b,c b,c c d	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda Cheyenne bermuda KF CD194 bermuda Pensacola bahia Tifton 9 bahia Common bermuda ³ Giant bermuda ³	1943 2085 1611 2408 1914 583	cd cd d bc cd e	2912 4885 3739 3430 3664 2167	de bc cd de cd e	8984 9054 8507 6640 7407 4771 5470 383 836	c cd d-f c-e f ef	7956 9991 8318 9440 8928 7525 6809 5967 7445 7356	bc d-f b-d c-e fg gh h fg fg	12428 11748 11549 13431 10075 7682 7398 11352 6643	b-d b-d b-d a,b d,e e,f f b-d f	7251 7218 6969 6967 6117 4402 4361 6393 4945	b,c b,c b,c b,c c d	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda Cheyenne bermuda KF CD194 bermuda Pensacola bahia Tifton 9 bahia Common bermuda³ Giant bermuda³	1943 2085 1611 2408 1914 583	cd cd d bc cd e	2912 4885 3739 3430 3664 2167	de bc cd de cd e	8984 9054 8507 6640 7407 4771 5470 383 836 188	c cd d-f c-e f ef	7956 9991 8318 9440 8928 7525 6809 5967 7445 7356 6744	bc d-f b-d c-e fg gh h fg gh	12428 11748 11549 13431 10075 7682 7398 11352 6643 7550	b-d b-d a,b d,e e,f f b-d f	7251 7218 6969 6967 6117 4402 4361 6393 4945 4827	b,c b,c b,c b,c c d	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda Cheyenne bermuda KF CD194 bermuda Pensacola bahia Tifton 9 bahia Common bermuda³ Giant bermuda³ Wrangler bermuda³ Kikuyugrass³	1943 2085 1611 2408 1914 583 767	cd cd d bc cd e	2912 4885 3739 3430 3664 2167 2203	de bc cd de cd e	8984 9054 8507 6640 7407 4771 5470 383 836	c cd d-f c-e f ef	7956 9991 8318 9440 8928 7525 6809 5967 7445 7356	bc d-f b-d c-e fg gh h fg gh	12428 11748 11549 13431 10075 7682 7398 11352 6643	b-d b-d a,b d,e e,f f b-d f	7251 7218 6969 6967 6117 4402 4361 6393 4945	b,c b,c b,c b,c c d	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda Cheyenne bermuda KF CD194 bermuda Pensacola bahia Tifton 9 bahia Common bermuda³ Giant bermuda³ Wrangler bermuda³ Kikuyugrass³	1943 2085 1611 2408 1914 583 767	cd d bc cd e e	2912 4885 3739 3430 3664 2167 2203	de bc cd de cd e e	8984 9054 8507 6640 7407 4771 5470 383 836 188	c cd d-f c-e f ef	7956 9991 8318 9440 8928 7525 6809 5967 7445 7356 6744 7620	bc d-f b-d c-e fg gh h fg gh e-g	12428 11748 11549 13431 10075 7682 7398 11352 6643 7550 5539	b-d b-d a,b d,e e,f f b-d f f	7251 7218 6969 6967 6117 4402 4361 6393 4945 4827 4386	b,c b,c b,c c d d	
Ranchero Frio bermuda Tierra Verde bermuda Coastal Bermuda Cheyenne bermuda KF CD194 bermuda Pensacola bahia Tifton 9 bahia Common bermuda³ Giant bermuda³ Wrangler bermuda³ Kikuyugrass³	1943 2085 1611 2408 1914 583 767 establis	cd d bc cd e e	2912 4885 3739 3430 3664 2167 2203	de bc cd de cd e e	8984 9054 8507 6640 7407 4771 5470 383 836 188	c cd d-f c-e f ef	7956 9991 8318 9440 8928 7525 6809 5967 7445 7356 6744 7620	bc d-f b-d c-e fg gh h fg gh e-g	12428 11748 11549 13431 10075 7682 7398 11352 6643 7550 5539	b-d b-d a,b d,e e,f f b-d f f	7251 7218 6969 6967 6117 4402 4361 6393 4945 4827 4386	b,c b,c b,c c d d	