

TURFGRASS TRENDS

OVERSEEDING

In Search of Transition Dates

Color and quality of annual, perennial ryegrasses compared in Texas overseeding trial

By L.R. Nelson

It's important for superintendents to have a good idea of the transition date and turf quality that they can expect from their cool- and warm-season grass choices. At Texas A&M a study was conducted to compare two new varieties of turf-type annual ryegrass with varieties of perennial ryegrass, chewing fescue and *Poa trivialis* for turf quality, color and transition when overseeded onto a bermudagrass sod.

All entries of cool-season grasses were overseeded onto Texace Bermudagrass on Oct. 21, 2003. The seeding rates are presented in Table 1 on page 68.

Axcella and Panterra were tested at both 10 and 20 pounds per 1,000 square feet. The experiment was watered daily for the next eight days to ensure good germination, and a relatively good stand resulted. Thereafter the study was watered as needed. The test site was fertilized with nitrogen (N), phosphorus pentoxide (P₂O₅) and potassium oxide (K₂O) according to soil test and with nitrogen at 1 pound per 1,000 square feet on a monthly basis. The test was mowed at one-half inch height on a weekly basis. Plot size was 4 x 4 feet, with four replications.

Stands were acceptable, although several entries were rated below 50 percent stand after nine days; however, all entries filled in after about three weeks. Texture of all entries was quite good, and Winterlinks was rated best, followed by the perennials and the annuals.

As early as April 21 transition of Axcella, Panterra and possibly Winterlinks had begun.

For turf color, Brightstar, Citation Fore, and Allstar² were rated best for dark green color. Winterlinks, Axcella, and Panterra were rated acceptable but a lighter green color than the perennials in the study.

Turf rating for quality (Table 2) indicated that Axcella, Panterra and Winterlinks had good ratings from December through early April; however, in April their turf quality began to diminish. The perennial varieties had good turf quality throughout the study, even into May. The blend of Brightstar and Shadow II was similar to Brightstar and the other perennials. The lower seeding rate treatments on Axcella and Panterra resulted in a lower turf quality in December and January, and thereafter differences were not apparent.

Transition date of both the cool-season entries and the warm-season sod are shown in Table 3. Note that as early as April 21 transition of Axcella, Panterra and possibly Winterlinks had begun. By mid-May transition was nearing 50 percent, and by May 28 death of the annuals was nearly 100 percent. The perennials resisted transition, and it was very

Continued on page 66

IN THIS ISSUE

- **Weed Management**
Sulfonylureas target ALS enzyme to control sedges, grasses, broadleaf weeds70
- **Fertilizers**
Plant growth regulators may improve efficiency of bermudagrass greens75
- **Topdressing**
Sand coated with steady-release nitrogen improves core hole, ballmark recovery80

OUR SPONSORS



www.BayerProCentral.com
888-842-8020



www.AndersonsGolfProducts.com
800-225-2639



www.floratine.com
901-853-2898



www.toro.com
800-348-2424

TABLE 1

Turf ratings of overseeded turfgrasses for stand, texture and color at Overton, Texas, during the 2003-2004 season.

Entry§	Seeding rate lb/1000 ft ²	Stand %	Texture Rating 1-9†			Color Ratings 1-9†	
			Oct. 30	Mar. 15	Feb. 16	Apr. 21	
Axcella	20	80	5.0	5.8	4.5		
Panterra	20	66	5.2	6.0	5.2		
Allstar ²	16	61	7.5	7.8	7.8		
Derby Supreme	16	58	7.2	6.8	6.0		
Lh A-00 M146-2-18	18	53	7.5	6.8	6.0		
Blazer 4	18	40	7.8	7.8	7.0		
Brightstar + Shadow II‡	15	35	7.2	7.8	6.8		
Brightstar	15	35	7.2	8.5	7.2		
Citation Fore	15	40	7.5	8.2	7.2		
Quick Trans	15	45	7.8	7.8	6.8		
Winterlinks	7	13	9.0	5.0	5.0		
Check	0	0	0.0	0.0	0.0		
Axcella	10	50	4.8	6.0	4.8		
Panterra	10	40	4.8	6.0	5.0		
Mean	—	44	6.6	6.7	6.0		
CV	—	31	6.7	7.2	6.4		
LSD (0.5)	—	19	0.6	0.7	0.5		

† — Texture rating and color ratings were 1-9 where 9 = best.

‡ — Mixture of 75 percent Brightstar and 25 percent Shadow II by weight.

§ — Axcella and Panterra are annual ryegrasses, Allstar², Derby Supreme, Blazer 4, Brightstar, Citation Fore, and Quick Trans are perennial ryegrasses, Winterlinks is a *Poa trivialis*, Shadow II is a chewing fescue, Lh A-00 M146-2-18 is an experimental intermediate ryegrass.

TABLE 2

Turf quality ratings on overseeded turfgrass entries at Overton, Texas, during the 2003-2004 season.

Entry	Turf Rating 0-9†				
	Date of Rating				
	12/22/03	1/13/04	2/16/04	3/15/04	4/04/04
Axcella	8.0	7.8	7.2	5.8	4.8
Panterra	7.8	6.5	7.2	5.0	5.8
Allstar ²	7.8	7.0	6.8	6.8	6.2
Derby Supreme	7.2	7.5	6.8	6.8	6.2
Lh A-00 M146-2-18	6.8	7.0	7.5	7.0	6.2
Blazer 4	7.2	7.0	7.5	7.5	7.0
Brightstar + Shadow II	6.5	6.5	6.8	6.2	6.5
Brightstar	6.8	6.8	6.8	6.8	6.8
Citation Fore	7.0	6.5	6.8	6.5	6.8
Quick Trans	5.8	6.5	6.8	6.0	6.2
Winterlinks	5.8	5.8	6.5	5.8	5.8
Check	0.0	0.0	0.0	0.0	0.0
Axcella‡	6.2	7.0	7.0	4.8	5.2
Panterra‡	6.2	6.8	6.8	5.0	5.5
Mean	6.5	6.0	6.5	5.9	5.9
CV	9.4	27.2	12.6	15.1	9.9
LSD (0.5)	0.8	2.4	1.2	1.3	0.8

† — Turf ratings are on a 0-9 scale where 9 = best.

‡ — Seeding rate was one half or 10 pounds per 1,000 feet².

Continued from page 65

gradual through June, and about 25 percent of perennial plants remained alive on July 6.

The transition of the warm-season sod indicates a much more rapid green-up after the annuals. Green-up after the perennials occurred much later or was delayed into July. With both annuals and perennials there is a period of time when the bermudagrass sod appearance is diminished. With annuals, this period will normally occur in mid to late May and last about two weeks. With perennials, this period will be in June or later and last for a longer period of time. Environmental conditions such as hot, dry and/or windy conditions will speed up the death of the cool-season grass, while cool, wet growing conditions will delay the death of the cool-season turf.

L.R. Nelson is a professor and ryegrass breeder at the Texas A&M University Agricultural Research and Extension Center at Overton, Texas. He has developed and released annual ryegrass varieties that are suited for either turf or forage purposes but not both, since forage types are not at all suited for turf. Turf varieties are selected for dwarf plant stature, improved color, high tillering and crown rust resistance.

TABLE 3

Transition of cool-season grass from turf in spring of 2004 at Overton, Texas.

Entry	Percent									
	Winter Grass Remaining					Green Bermudagrass in Turf				
	Apr. 21	May 14	May 28	June 10	July 6	Apr. 21	May 14	May 28	June 10	July 6
Axcella	85	41	3	0	0	15	48	85	88	100
Panterra	88	40	2	0	0	13	50	86	93	100
Allstar ²	94	90	79	73	35	6	10	21	28	43
Derby Supreme	91	90	81	71	13	9	10	19	29	48
Lh A-00 M146-2-18	94	88	78	66	9	6	13	19	26	63
Blazer 4	90	93	84	76	19	10	8	16	24	55
Brightstar + Shadow II†	90	90	78	75	25	11	10	23	25	53
Brightstar	90	91	76	73	25	10	9	24	28	55
Citation Fore	90	91	78	71	29	10	9	20	29	50
Quik Trans	89	70	65	63	6	11	10	45	38	73
Winterlinks	90	91	13	13	0	10	9	43	48	85
Check	0	0	0	0	0	18	31	86	78	100
Axcella‡	81	44	2	0	0	19	56	90	93	100
Panterra‡	83	48	3	0	0	18	51	90	94	100
Mean	85	73	50	46	13	11	23	48	50	71
CV	4.4	13.0	14.6	24.3	77	33.0	19.5	17	29.6	17.4
LSD (0.5)	5.2	13.4	10.4	15.6	14	5.3	6.2	11	20.2	17.7

† — Brightstar + Shadow is a mixture of 75 percent and 25 percent, respectively, by weight.

‡ — Seeding rate was one half or 10 pounds per 1,000 feet².