2004 NTEP Perennial Ryegrass Test – 2004 Grow-in Results

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Objective

To evaluate 120 commercial and experimental varieties of perennial ryegrass under low mowing height, high maintenance conditions in central Indiana.

Rationale

Perennial ryegrass is used for golf course tees and fairways and some highly maintained athletic fields because it can tolerate relatively short mowing heights and traffic. Use of perennial ryegrass has been problematic due to such problems as disease susceptibility. This experiment was conducted to evaluate the performance of perennial ryegrass varieties to aid in cultivar selection.

How It Was Done

One hundred twenty varieties of perennial ryegrass were seeded on 10 Sep 2004 at the William H. Daniel Research and Diagnostic Center on a silt loam soil. Seeding rate was 6.0 lbs per 1000 ft^2 and seed was spread using a hand shaker jar. After seeding the experiment was lightly raked and a starter fertilizer (6-24-24) was applied at the rate of 1.0 lbs P_2O_5 per 1000 ft^2. The area was covered with a germination blanket following seeding to prevent washing of seed and mixing of varieties.

Plots are maintained under a typical fairway maintenance regime. The mowing height is 0.5 inch, mowed 3x per week. The annual fertilization is 3.0 lbs. N per 1000 ft^2 with 1 lb applied in mid-May, 1 lb in mid-September, and 1.0 lb. in early November. Irrigation is applied to prevent any sign of stress.

Data collected in 2004 were percent of the plot area covered by the desired species.

Results to Date

This test was started last fall so there are very few results to report at this time. It is promising to see the number of cultivars entered into this national test. Through the next four years we expect that many of the numbered entries will be given names and will be released for commercial use.

Table 1. Percent cover by 120 cultivars of perennial ryegrass 4 weeks after seeding in Sept 2004.

Cultivar	Cover[a]	Cultivar	Cover	Cultivar	Cover
GL-2	58.3	PM 102	43.3	JR-324	35.0
IS-PR 270	58.3	PST-2LGL	43.3	JR-408	35.0
Inspire	55.0	04-BRE	41.7	MS2	35.0
IS-PR-235	55.0	BAR Lp 4920	41.7	Paragon GLR	35.0
Buena Vista	53.3	Barlennium	41.7	PST-2BLK	35.0
D04-LP05	53.3	Brightstar SLT	41.7	PWDR	35.0
IS-PR-312	53.3	Fusion	41.7	Quicksilver	35.0
APR 1670	51.7	Headstart 2	41.7	AJM	33.3
Pick 02-R	51.7	LTP-611-GLR	41.7	BAR Lp 4317	33.3
PST-2AM	51.7	Pizzazz	41.7	IS-PR-269	33.3
DP 17-9505	50.0	Premier II	41.7	JR-348	33.3
Premier	50.0	SRX 4SP	41.7	Panther GLS	33.3
RNS	50.0	Sunshine 2	41.7	TRS	33.3
DP1	48.3	Citation Fore	40.0	04-BEN	31.7
PST-2MNG	48.3	CNV	40.0	APR1660	31.7
SRX 4UP3	48.3	D04-UP	40.0	ARR 1664	31.7
EXS54	46.7	DP 17-9502	40.0	LCK	31.7
JR-119	46.7	IS-PR-233	40.0	SRX 4692	31.7
Pick F4	46.7	IS-PR-268	40.0	D04-1667	30.0
Pick RB-1	46.7	IS-PR-274	40.0	DP 17-9788	30.0
PM 101	46.7	JR-163	40.0	LPR 02203	30.0
PST-2AG4	46.7	PRG HS-01-09	40.0	PST-2LAN	30.0
Silver Dollar	46.7	Protégé	40.0	RG3P	30.0
APR 1648	45.0	AC2	38.3	SNR	30.0
APR-1663	45.0	AF	38.3	SRX 4682	30.0
BAR Lp 4420	45.0	D04-11T	38.3	VB99	30.0
IS-PR-236	45.0	Overdrive	38.3	DCM	28.3
MMW	45.0	Panther	38.3	Linn	28.3
PS-2	45.0	RAD-PR8	38.3	Pick 01-2	28.3
SP4	45.0	TR47	38.3	PST-2GSM	28.3
VB77	45.0	Affinity	36.7	JR-114	26.7
AAZ-B104	43.3	ES45	36.7	L44	26.7
DP 17-9499	43.3	Mach I	36.7	LPFG	26.7
IS-PR 271	43.3	Palmer IV	36.7	LTP-101-GLR	26.7
IS-PR 273	43.3	Pennacle	36.7	PST-217	26.7
KN42	43.3	PM 103	36.7	RTS	26.7
LTP-PG-GLR	43.3	Repell GLS	36.7	BPR	25.0
Palmer III	43.3	APR 1797	35.0	GPR	25.0
Pentium	43.3	E-99	35.0	JR-255	21.7
Pinnacle II	43.3	IS-PR-276	35.0	Manhattan II	0.7
				LSD (0.05)	20.3

[a] Percent of the plot area covered by desired species.