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Prograss Safety on Bentgrass Varieties at Greens Height

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Variety Quality

The National Turfgrass Evaluation Programs bentgrass variety trial, at greens height, was established in the fall of 1989 making this its second full year of rating. This trial has been established nation wide to help breeders develop a broad picture of the adaptation of a cultivar.

Quality ratings this year were taken on April 21, June 7 and July 7. A score from 1-9 is given with a score of 9 meaning highest quality. Due to the cool dry weather conditions in 1992, as compared to 1991, ratings have been significantly lower this year. None of the varieties obtained an average score over 6 which could be considered acceptable performance. However, as rating dates are added this year it can be expected that the scores will increase. The variety Providence received the highest rating this year just as it did in 1991. It should be pointed out, however, that there is no statistically significant differences between the top 12 varieties which would indicate that all of these varieties may perform equally in Mid-Michigan. (Table 1)

A special effort was made this year to monitor spring greenup and it was noted that 3 varieties from International seeds (Cobra, 88.CBL, and 88.CBE) all exhibited earlier greenup under this years weather conditions.

PROGRASS Safety

Many of the varieties present in this trial have not been released or have only been recently released. Therefore, it would be helpful to know how these varieties respond to new management practices which may be used on putting greens, such as PROGRASS application.

The variety plots were each split 3 ways and subjected to a control treatment as well as PROGRASS applications of 0.50 and 0.75 lbs a.i./A on 9/24/91 and 10/16/91. Injury ratings were then taken on 10/18/91, 11/08/91, and 4/19/92 to establish the extent of any injury which may have occurred. A rating scale from 1-9 was used with a score of 1 indicating death of the plot and 9 being no detectable injury. A score of 6.5 or better would indicate an acceptable level of injury. From the data it can be seen that only one creeping bentgrass variety UM84-01, with a score of 6.3, was under this 6.5 level which was after two applications of PROGRASS at the high rate. All other varieties receiving scores below 6.5 were colonial types which consistently perform poorly in our variety trials. (Table 2)

This data would therefore indicate that PROGRASS is safe for use on these newly released varieties of creeping bentgrass.

Table 1.

BENTGRASS VARIETY TRIAL DATA

Variety	Species	Sponser	1991		1992		Overall	
			Mean	Rank	Mean	Rank	Mean	Rank
Providence	Creeping	Seed Research Of Oregon	6.7	1	5.6	1	6.2	1
Pennlinks	Creeping	Tee-2-Green Corp	6.1	4	5.5	2	5.8	2
Cobra	Creeping	International Seeds	6.1	4	5.5	2	5.8	2
88. CBL	Creeping	International Seeds	6.3	2	5.2	5	5.8	2
Penncross	Creeping	Tee-2-Green Corp	6.0	5	5.5	2	5.7	3
Putter	Creeping	Jacklin Seed Co.	6.2	3	5.1	6	5.7	3
SR 1020	Creeping	Seed Research	6.1	4	5.3	4	5.7	3
88.CBE	Creeping	International Seeds	5.8	6	5.4	3	5.7	3
Forbes 89-12	Creeping	Forbes Seed & Grain	6.1	4	5.1	6	5.7	3
Normarc 101	Creeping	Normarc, Inc.	6.0	5	5.2	5	5.6	4
Carmen	Creeping	Van der Have	6.1	4	5.0	7	5.6	4
TAMU 88-1	Creeping	Texas A&M Univ.	6.1	4	5.0	7	5.6	4
MSCB-8	Creeping	Mississippi St. Univ	5.3	7	5.3	4	5.4	5
MSCB-6	Creeping	Mississippi St. Univ	4.4	10	5.2	5	5.1	6
WVPB 89-D-15	Creeping	Willamette Valley P.B.	5.3	7	4.8	8	5.0	7
UM 84-01	Creeping	Johnson Seeds, Ltd.	5.8	6	4.2	10	5.0	7
Emerald	Creeping	International Seeds	5.2	8	4.5	9	4.8	8
National	Creeping	Pickseed West	4.7	9	4.5	9	4.6	9
Egmont	A. capillaris	Olsen-Fennell Seed	1.9	11	1.8	11	1.8	10
Allure	Colonial	Willamette Seed Co.	1.7	12	1.7	12	1.7	11
Bardot	Colonial	Barenburg USA	1.3	13	1.6	13	1.5	12
BR 1518	A. castellana	USGA Green Section	1.2	14	1.7	12	1.4	13
Tracentia	Colonial	Van der Have Oregon	1.2	14	1.3	14	1.2	14
			lsd=1.01		lsd=0.530		lsd=0.735	

Quality ratings 1-9 1=very poor quality 9=highest quality

Table 2.

PROGRESS SAFETY ON BENTGRASS VARIETIES

Variety	Species	Progress Rate (lbs a.i./A)								
		0.50			0.75			Control		
		10/18	11/08	04/19	10/18	11/08	04/19	10/18	11/08	04/19
Providence	Creeping	8.7	9.0	8.0	8.3	9.0	7.7	9.0	9.0	8.0
Pennlinks	Creeping	8.7	9.0	8.0	8.7	9.0	8.0	8.7	9.0	8.0
Cobra	Creeping	8.7	8.3	7.8	8.7	8.3	8.0	9.0	9.0	7.8
88.CBL	Creeping	9.0	8.7	7.8	8.7	8.0	7.8	9.0	9.0	7.8
Penncross	Creeping	8.7	9.0	8.0	8.7	9.0	7.8	9.0	9.0	7.8
Putter	Creeping	8.3	8.7	7.8	8.3	8.7	7.8	8.7	9.0	7.8
SR 1020	Creeping	8.7	8.3	8.0	8.3	8.3	7.8	8.7	9.0	7.8
88.CBE	Creeping	9.0	9.0	7.8	9.0	8.7	7.8	8.7	9.0	7.7
Forbes 89-12	Creeping	8.3	8.7	8.0	8.3	8.7	7.7	9.0	9.0	8.0
Normarc 101	Creeping	9.0	9.0	8.0	8.7	9.0	7.7	9.0	9.0	7.8
Carmen	Creeping	8.3	8.0	7.8	8.0	8.0	7.8	8.3	9.0	8.0
TAMU 88-1	Creeping	8.3	8.7	7.8	8.3	8.3	7.7	9.0	9.0	7.5
MSCB-8	Creeping	8.3	8.7	7.8	8.3	8.7	7.8	8.7	9.0	9.0
MSCB-6	Creeping	8.3	8.7	8.0	8.0	8.7	8.0	9.0	9.0	8.0
WVPB 89-D-15	Creeping	8.3	8.3	7.8	8.3	8.0	7.8	9.0	9.0	8.0
UM 84-01	Creeping	7.7	7.0	8.0	8.0	6.3	7.2	8.0	8.7	7.7
Emerald	Creeping	8.3	8.0	7.7	8.3	8.0	7.5	9.0	8.7	8.0
National	Creeping	9.0	8.3	8.0	8.3	8.0	7.7	9.0	8.3	7.3
Egmont	A. capillaris	8.3	6.7	7.3	8.3	5.0	4.3	9.0	9.0	8.0
Allure	Colonial	8.3	6.3	6.7	8.0	5.3	5.8	9.0	8.3	8.0
Bardot	Colonial	8.3	6.7	7.8	8.3	5.0	5.3	9.0	8.3	8.0
BR 1518	A. castellana	7.7	5.0	6.8	8.0	4.7	5.7	8.7	8.3	8.0
Tracenta	Colonial	8.3	5.7	6.5	8.0	4.0	4.7	9.0	8.3	8.0
LSD (P=0.05)		0.2	0.7	0.8	0.2	0.7	0.8	0.2	0.7	0.8
Applied 09/24/91 10/16/91										

Injury ratings 1-9 1=death 9=no injury