

Prospect and SuperBio for Putting Green Performance

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December, 2000

OBJECTIVES

To determine the effects of Prospect and SuperBio on several different putting green characteristics.

MATERIALS AND METHODS

Soil: Silt loam

Turf: *Poa annua* var. *annua* and *P. annua* var. *reptans*, 5/32-1/8" height

Irrigation: daily to provide 80% ET

Experimental design: randomized complete block design, 4 replications

Plot size: 35 x 49 feet total, 5 x 10 ft individual plots, and 3 ft alleys between reps for yield collection purposes

Treatments: The entire plot area was compacted using a walk-behind vibrating compactor (Whacker brand) in the early afternoon on August 30. The soil was moist during time of application; two perpendicular passes were applied. Applied August 30, 2000. Additional treatments: April 1 and June 1, 2001

Data: Soil compaction was determined using a cone penetrometer. Four random readings were collected from each plot immediately following compaction and prior to treatment. These four values were averaged to determine a single representative value for each plot.

<u>Treatments</u>	<u>Rate (qt/A)</u>	<u>Rate (oz/M)</u>
Prospect	1.6	1.2
Prospect	2.0	1.5
Prospect + SuperBio	1.6 + 1 gal	1.2 + 2.9
SuperBio	1 gal	2.9
SuperBio	2 gal	5.8
Prospect + SuperBio	2 + 1 gal	1.5 + 2.9
Untreated Control	--	--

Treatments are applied using 1 gal H₂O per 1000 sq. ft. and are lightly irrigated in with approximately 0.10 inch water after application. Treatments are applied late in the day to avoid UV light degradation.

Fertilizer: 3 lb. N/yr (over entire test area). To date two fertilizer applications have been performed—19 October 0.25 lb. N/M and 1 November 0.5 lb. N/M. We used 21-3-12 greens grade (Spring Valley).

Pest Maintenance: Control diseases, weeds, and insects as needed. Fungicides are not sprayed within 2 weeks of treatment applications (SuperBio components may be sensitive). To date no pesticide applications have been performed.

Data collection:

Data collection schedule					
Treatment application date	Yield	Color	Quality	Compaction	Root mass
August 30, 2000	14 DAT*	14 & 28 DAT*	14 & 28 DAT*	Prior to treatment & 28 DAT*	--
April 1, 2001	14 DAT	14 & 28 DAT	14 & 28 DAT	Prior to treatment & 28 DAT	--
June 1, 2001	14 DAT	14 & 28 DAT	14 & 28 DAT	Prior to treatment & 28 DAT	End of study (if warranted)

DAT= days after treatment application.

* indicates data have already been collected.

Both treatment application and data collection will continue in 2001 according to the planned schedule.

RESULTS AND DISCUSSION

Preliminary results did not indicate any treatment differences occurred during autumn 2000 (Table 1). This is only the first part, however, of a longer term study. Growing conditions for turf were ideal during the first part of this study. Often treatments do not have significant impact until some stress has occurred. We will continue to treat and monitor the turf during spring and summer 2001.

Table 1. Quality, color, yield, and penetrometer values of putting green turf treated with Prospect and SuperBio during autumn 2000, Verona, WI.

Treatment	Quality			Color		Clipping yield (g plot ⁻¹)	Penetrometer values (psi)		
	9/12	9/18	9/28	9/18	9/28	9/27	8/30/00	10/3/00	Difference
Prospect, 1.2 oz	6.8	7.0	6.9	7.2	6.9	3.3	109.063	114.688	-5.6
Prospect, 1.5 oz	6.8	7.2	7.0	7.4	6.9	3.4	110.938	117.5	-6.6
SuperBio, 2.9 oz	7.0	7.1	7.0	7.5	6.9	3.5	105.313	117.188	-11.9
SuperBio, 5.8 oz	6.8	7.0	6.9	7.4	7.0	3.5	110.313	117.188	-6.9
Prospect + SuperBio, 1.2+2.9 oz	7.0	7.2	7.0	7.4	7.0	3.3	111.875	116.875	-5.0
Prospect + SuperBio, 1.5+2.9 oz	7.0	7.0	6.9	7.5	7.0	3.7	112.188	118.438	-6.2
Untreated check	6.9	7.0	6.9	7.4	7.0	3.9	106.25	119.688	-13.4
LSD (0.05)	ns	ns	ns	ns	ns	ns	---	---	ns

ns = Not significant at p 0.05.