

Stop #1: Evaluation of Products to Alleviate Localized Dry Spot (LDS) and Drought Stress

Jim Baird, Marco Schiavon, Jacob Gray, and Katarzyna Zak

Summary

In 2013, five trials were conducted on three golf courses in northern California and at the UC Riverside turfgrass research facility. Three experiments were conducted on putting greens and two on fairway turf. LDS was variable both among and within experimental areas. Collectively, however, the following observations were made.

- ✓ Under non-limiting irrigation and little or no LDS, few differences were found among all treatments.
- ✓ Revolution and TriCure AD performed best when water was withheld and LDS was prevalent.
- ✓ On putting greens, moisture retention was inversely related to firmness.
- ✓ Please see <http://ucanr.edu/sites/turfgrassfieldday/> for the complete report on the UCR trial. The entire LDS report will be available in October 2013.

Sprayer Information

CO₂-powered backpack hand boom

Four TeeJet 8004VS flat fan nozzles; 9.5-inch spacing

Pressure: 30 psi; Groundspeed: 2 mph; Output: 2 gal/M

Spray Record

Timing	A	B	C
Date	14 June 2013	28 June 2013	4 July 2013
Time	5:45 to 7:30	5:45 to 6:40	6:45 to 7:00
Temperature	59F	70F	63F
Wind	Calm	Calm	Calm
Conditions	Overcast	Clear	Clear

Timing	D	E	F
Date	12 July 2013	8 August 2013	23 August 2013
Time	6:40 to 7:50	6:00 to 7:30	7:00 to 7:45
Temperature	70F	60F	68F
Wind	Calm	Calm	Calm
Conditions	Partly sunny	Clear	Clear

Timing	G	H	I
Date	29 August 2013	6 September 2013	
Time	9:00 to 9:15	6:45 to 8:45	
Temperature	79F	70F to 81F	
Wind	Calm	Calm	
Conditions	Clear	Partly Cloudy	

Ratings:

- Turf Quality (1 to 9 scale, 9 = best) – weekly and periodically as needed
- Localized Dry Spot (0 to 100%) – monthly and periodically as needed
- Turf Cover (0 to 100%)
- Soil Moisture (%)
- Green Firmness (Clegg Impact Tester)
- Droplet Penetration Test – 29 July 2013

**2013 UCR Putting Green LDS Study
Riverside, CA**

No.	Treatment	Company	Rate (oz/M)	Timing (d)
1	Control	--	--	--
2	A16982A	--	6.3	14
3	A16982A	--	12.6	14
4	Affinity	BASF	6.0	28
5	APSA-80	Amway	2.5	14
6	Aqua Plus	Creative Eco Systems	3.0	28
7	Aqueduct	Aquatrols	8.0	14 (28)
8	Revolution	Aquatrols	6.0	14 (28)
9	ES TC006A	--	9.0	21
10	Displace	Grigg Brothers	12.0	28
11	GB-6931	--	6.0	28
12	TriCure AD	Mitchell Products	6.0	28
13	Neptune	Numerator Technologies	6.0	28
14	Revert	Numerator Technologies	6.0	28
15	NT-01533	--	4.0	14
16	NT-0949	--	6.0	28
17	NT-R008	--	6.0	28
18	Cascade + Duplex	Precision Labs	5.0	21
19	PX13002	--	5.0	21
20	PX13011	--	4.0	21
21	PX13012	--	5.0	21
22	Microbic with SumaGrow	AgriBiotic Products	3.0	28
23	Revolution	Aquatrols	6.0	21 rotation
23	ES TC006A	--	9.0	
24	Heritage TL	Syngenta	1.0	14
25	Heritage TL	Syngenta	1.0	14
25	A16982A	--	6.3	14
26	Briskway	Syngenta	0.6	14
26	A16982A	--	6.3	14
27	Lexicon	BASF	0.47	28
28	Lexicon	BASF	0.47	28
28	Affinity	BASF	6.0	28
29	Moisture Manager	John Deere	9.0	(28)
30	MegAlex*	ihammer	7.3	14
31	Upplause Plus*	ihammer	6.0	14
32	Control	--	--	--
33	Fleet	Simplot	8.0	28
34	Fleet	Simplot	16.0	28
35	Fleet	Simplot	8.0	14

*All treatments were watered in following application except 30 and 31.

2013 UCR Putting Green LDS Study
 12G-6 (North →)

4 ft x 6 ft plots

1	9	17	25	33	21	6	2	31	2	5	1	6
2	10	18	26	34	1	23	33	18	9	16	4	27
3	11	19	27	35	13	9	14	22	31	3	10	34
4	12	20	28	12	3	34	20	11	20	17	24	22
5	13	21	29	17	35	15	26	28	18	11	33	32
6	14	22	30	32	10	4	30	23	13	26	21	15
7	15	23	31	27	29	25	5	7	29	14	25	19
8	16	24	32	8	24	19	7	35	12	30	8	28
												16