

Central Florida Soil Laboratory

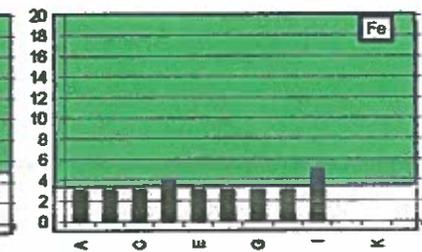
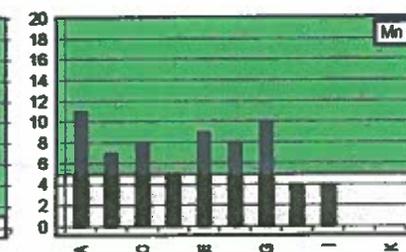
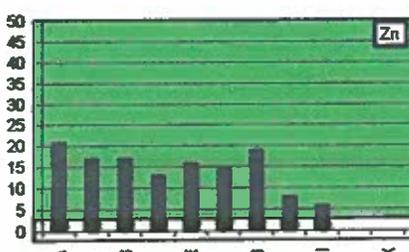
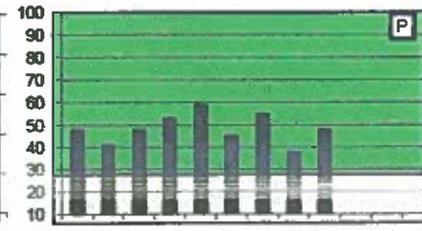
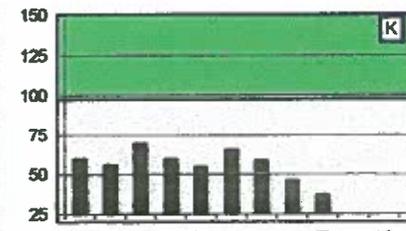
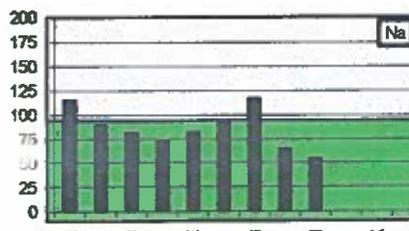
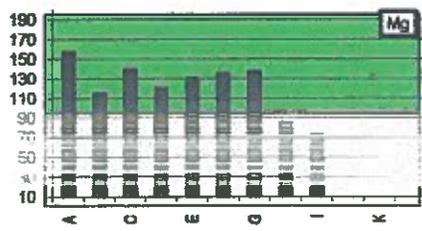
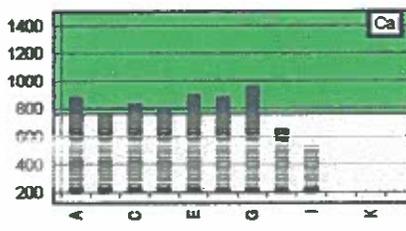
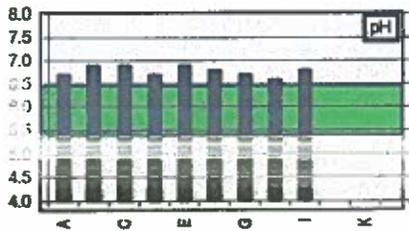
P.O. Box 2506
Bartow, Florida 33831
(863) 533-5579

Manatee County G. C.
6415 - 53rd Ave. W.
Bradenton, FL 34210

**Soil
Manatee Co.
Greens**

Date Received: 04/06/10
Date Reported: 04/07/10

LD.		pH	Ca	Mg	Na	K	P	Zn	Mn	Fe	C.E.C.	Calculated Base Saturation (%)			
												Ca	Mg	Na	K
13	A	6.7	880	158	116	60	48	21	11	3	3.2	69.2	20.5	7.9	2.4
14	B	6.9	770	116	90	56	41	17	7	3	2.7	72.1	17.9	7.3	2.7
15	C	6.9	830	140	82	70	48	17	8	3	2.9	71.1	19.8	6.1	3.1
16	D	6.7	800	121	74	60	53	13	5	4	2.7	73.1	18.2	5.9	2.8
17	E	6.9	900	131	83	55	59	16	9	3	3.0	74.0	17.7	5.9	2.3
18	F	6.8	880	136	95	66	45	15	8	3	3.0	72.1	18.4	6.8	2.8
PG	G	6.7	960	138	118	59	55	19	10	3	3.3	72.7	17.2	7.8	2.3
Chip	H	6.6	650	85	65	46	38	8	4	3	2.2	74.7	16.1	6.5	2.7
NG	I	6.8	530	73	55	37	48	6	4	5	1.8	73.9	16.8	6.7	2.6
	J														
	K														
	L														



Analysis is reported as AVAILABLE POUNDS PER ACRE.
The above have been extracted with Ammonium Acetate, pH 4.8



These ranges are general guidelines. Tissue samples should be taken to establish individual base-line.

Respectfully submitted,
Dennis Moeley

Central Florida Soil Laboratory

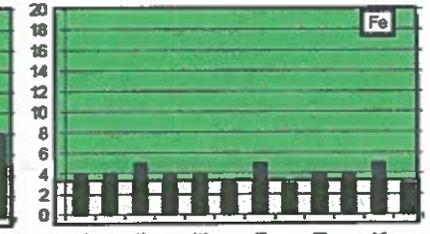
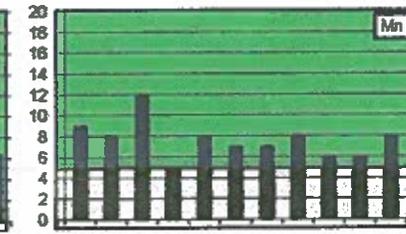
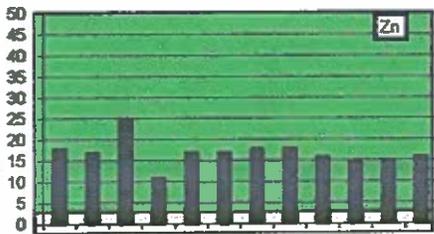
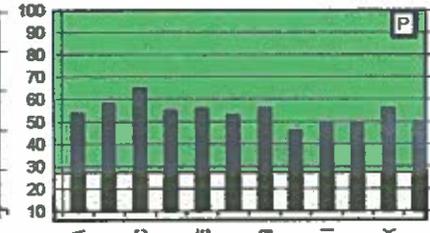
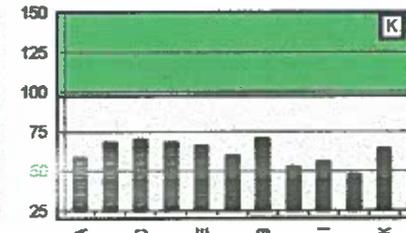
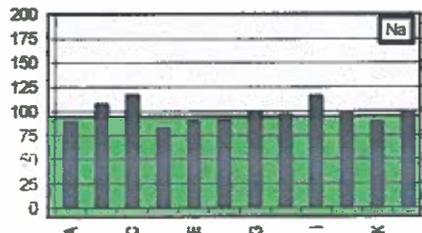
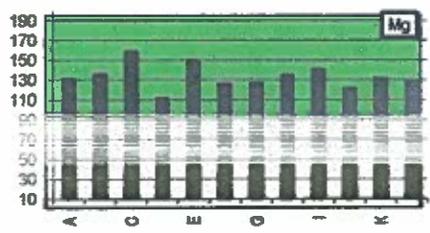
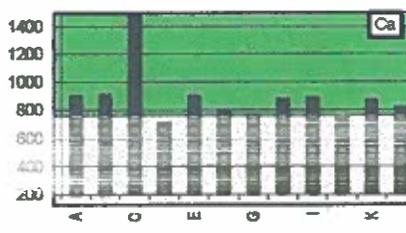
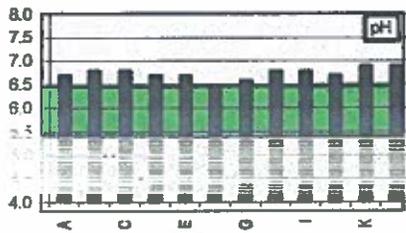
P.O. Box 2508
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(863) 533-5579

Manatee County G. C.
6415 - 53rd Ave. W.
Bradenton, FL 34210

Soil Manatee Co. Greens

Date Received: 04/06/10
Date Reported: 04/07/10

I.D.		pH	Ca	Mg	Na	K	P	Zn	Mn	Fe	C.E.C.	Calculated Base Saturation (%)			
												Ca	Mg	Na	K
1	A	6.7	900	131	90	59	54	18	9	4	3.1	73.5	17.6	6.4	2.5
2	B	6.8	910	136	108	68	58	17	8	4	3.2	72.0	17.7	7.5	2.8
3	C	6.8	3020	159	117	70	65	25	12	5	8.5	88.3	7.7	3.0	1.0
4	D	6.7	720	112	83	68	55	11	5	4	2.5	71.2	18.2	7.2	3.4
5	E	6.7	900	150	90	66	56	17	8	4	3.1	71.5	19.6	6.2	2.7
6	F	6.5	800	126	91	60	53	17	7	3	2.8	71.6	18.6	7.1	2.8
7	G	6.6	770	127	100	71	56	18	7	5	2.8	69.8	19.0	7.9	3.3
8	H	6.8	880	135	97	53	48	18	8	3	3.0	72.5	18.3	7.0	2.2
9	I	6.8	890	141	116	56	49	16	6	4	3.1	71.1	18.6	8.1	2.3
10	J	6.7	750	122	98	48	49	15	6	4	2.6	70.7	18.9	8.1	2.3
11	K	6.9	870	132	89	64	56	15	8	5	3.0	72.6	18.2	6.5	2.7
12	L	6.9	820	129	99	50	50	16	8	3	2.9	71.6	18.6	7.5	2.2



Analysis is reported as AVAILABLE POUNDS PER ACRE.
The above have been extracted with Ammonium Acetate, pH 4.8



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Respectfully submitted,
Dennis Moseley

CENTRAL FLORIDA SOIL LABORATORY

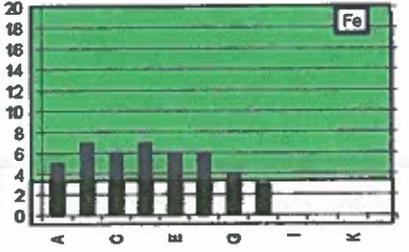
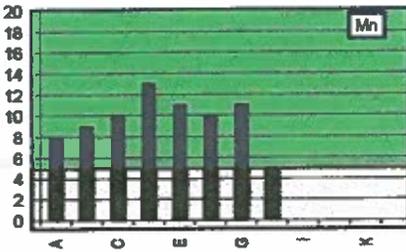
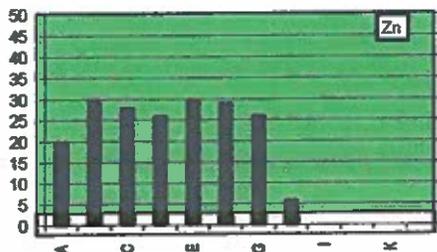
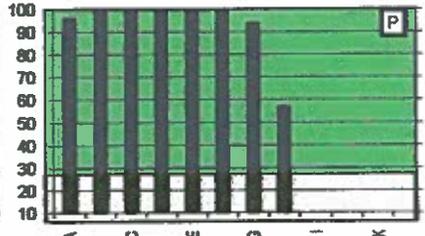
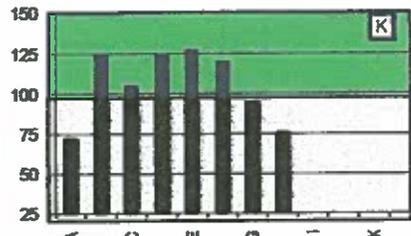
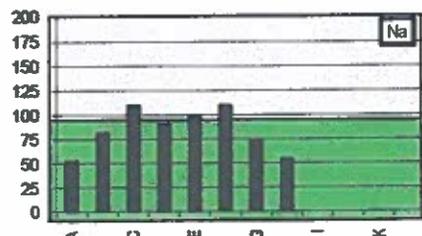
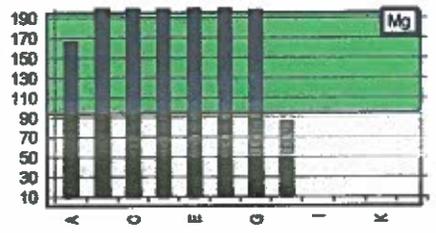
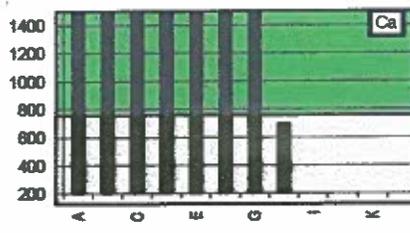
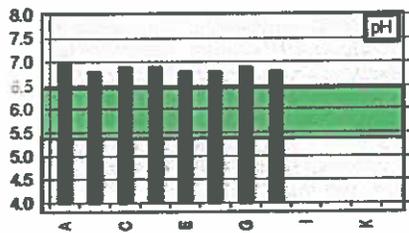
P.O. Box 2508
Bartow, Florida 33831
(863) 533-5579

Buffalo Creek Golf Course
8100-69th St. E.
Palmetto, Fl. 34221

**Soil
Buffalo Creek
Greens**

Date Received: 03/23/10
Date Reported: 03/25/10

LD.		pH	Ca	Mg	Na	K	P	Zn	Mn	Fe	C.E.C.	Calculated Base Saturation (%)			
												Ca	Mg	Na	K
13	A	7.0	1700	166	53	72	96	20	8	5	5.1	82.7	13.3	2.2	1.8
14	B	6.8	1880	200	82	124	118	30	9	7	5.8	80.2	14.1	3.0	2.7
15	C	6.9	2000	226	110	105	126	28	10	6	6.3	79.3	14.8	3.8	2.1
16	D	6.9	2060	220	91	124	135	26	13	7	6.4	80.3	14.1	3.1	2.5
17	E	6.8	2160	226	100	127	139	30	11	6	6.7	80.5	13.9	3.2	2.4
18	F	6.8	1830	210	110	120	130	29	10	6	5.8	78.4	14.8	4.1	2.6
PG	G	6.9	1700	198	73	95	94	26	11	4	5.3	79.5	15.3	3.0	2.3
NG	H	6.8	700	86	55	76	57	6	5	3	2.3	75.4	15.3	5.2	4.2
	I														
	J														
	K														
	L														



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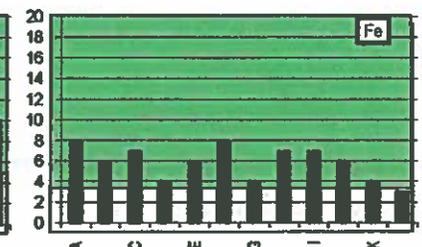
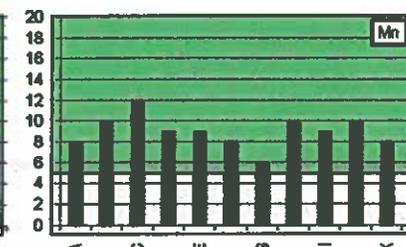
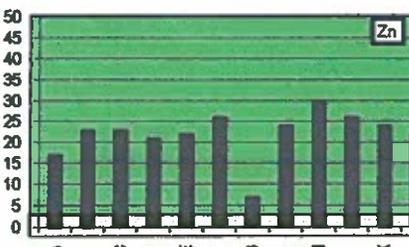
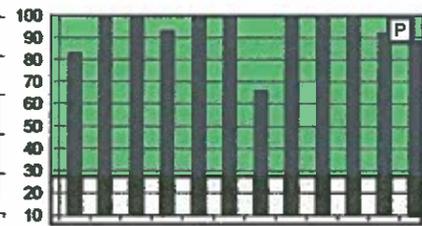
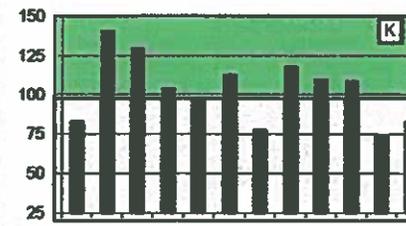
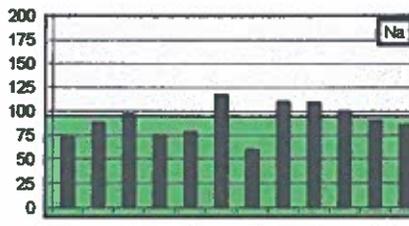
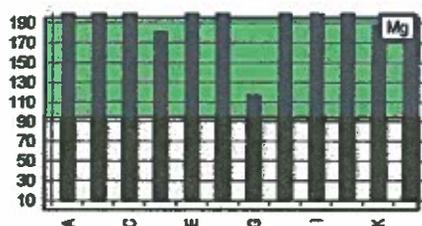
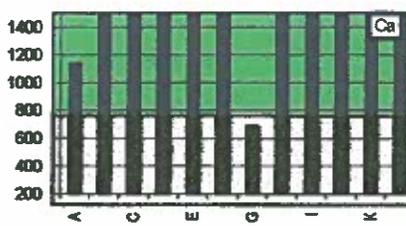
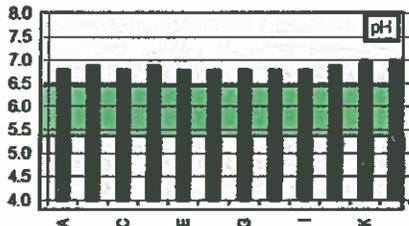
P.O. Box 2508
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(883) 533-5579

Buffalo Creek Golf Course
8100-69th St. E.
Palmetto, Fl. 34221

Soil Buffalo Creek Greens

Date Received: 03/23/10
Date Reported: 03/25/10

I.D.	pH	Ca	Mg	Na	K	P	Zn	Mn	Fe	C.E.C.	Calculated Base Saturation (%)				
											Ca	Mg	Na	K	
1	A	6.8	1140	204	72	83	83	17	8	8	3.9	72.1	21.3	4.0	2.7
2	B	6.9	2450	223	88	141	134	23	10	6	7.4	82.6	12.4	2.6	2.4
3	C	6.8	2290	215	97	130	130	23	12	7	7.0	81.9	12.7	3.0	2.4
4	D	6.9	1660	181	75	104	93	21	9	4	5.2	79.9	14.4	3.1	2.6
5	E	6.8	2300	208	79	98	128	22	9	6	6.9	83.3	12.4	2.5	1.8
6	F	6.8	1940	210	117	113	121	26	8	8	6.1	79.3	14.1	4.2	2.4
7	G	6.8	690	117	60	78	66	7	6	4	2.4	70.8	19.8	5.4	4.1
8	H	6.8	2100	222	110	118	114	24	10	7	6.5	80.1	14.0	3.7	2.3
9	I	6.8	2100	210	109	110	126	30	9	7	6.5	80.8	13.3	3.7	2.2
10	J	6.9	2050	209	100	109	123	26	10	6	6.3	80.8	13.6	3.4	2.2
11	K	7.0	1960	187	90	74	92	24	8	4	5.9	82.2	12.9	3.3	1.6
12	L	7.0	1750	174	86	83	88	22	10	3	5.4	81.2	13.3	3.5	2.0



Analysis is reported as AVAILABLE POUNDS PER ACRE.
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Respectfully submitted,
Dennis Moseley

USGA GREEN SECTION TURF ADVISORY SERVICE REPORT

MANATEE GOLF CLUB Bradenton, Florida



United States Golf Association
Green Section, Florida Region

John H. Foy, Director
P.O. Box 1087
Hobe Sound, FL 33475-1087
(772) 546-2620, FAX (772) 546-4653
E-mail: jfoy@usga.org

Todd Lowe, Agronomist
127 Naomi Place
Rotonda West, FL 33947
(941) 828-2625, FAX (941) 828-2629
E-Mail: tlowe@usga.org

Present on the stop-by visit conducted February 17th, 2011:

Mr. Buddy Keene, Certified Golf Course Superintendent
Mr. Todd Lowe, USGA Senior Agronomist

Statement of Purpose: The purpose of the USGA Green Section is to assist subscribing courses in matters of agronomic management. All recommendations are offered free of bias, since the USGA has no connections or obligations to any manufacturer, supplier, or contractor. Additionally, since "quick fixes" seldom result in permanent improvement, some of the recommendations in this report may not be easy to implement and could take more than a single season to produce the desired results.

OPENING STATEMENTS

The USGA Green Section was created to provide non-biased recommendations for improving golf course conditioning based upon scientific fact. The Turfgrass Advisory Service (TAS) was initiated in 1953, and for over 50 years we have disseminated research findings and provided direct consultation to golf course superintendents and green committees. Our goal is to provide the best possible playing conditions for any particular club based on available budget and member expectations and to recommend necessary cultural practices to make this happen.

It was a pleasure stopping in and visiting with Mr. Buddy Keene as a courtesy, on behalf of the USGA Green Section. The putting greens have become stressed over the past several weeks and several greens have experienced turf thinning. The following report lists the observations and recommendations that were made during the visit and serve merely as a supplement to the existing agronomic programs in place at Manatee Golf Club.

GREENS

The putting greens at Manatee Golf Club consist of Tifdwarf bermudagrass atop a variable sandy rootzone mix. The mix is variable, as the underlying subsoil is quite sandy and porous; but most of the troublesome areas have been sodded in the past and contain various layers of soil and organic matter.



Figure 1. Several putting greens contained thin, weak areas at this time.

Tifdwarf bermudagrass is an outdated bermudagrass variety that performed well in our region since 1965, when standards for putting greens were much lower than they are today. Ultradwarf bermudagrasses like TifEagle, Champion, and Mini-Verde were developed over a decade ago and have provided excellent playing conditions and higher overall standards in our region. It is important to note that most of the local "competitor" clubs have these approved varieties. Maintaining the same standards on Tifdwarf bermudagrass as ultradwarf bermudagrass greens causes greater stress and increases the likelihood of turf thinning. If higher standards (faster putting speeds) are desired on a regular basis, I recommend considering long-range regrassing with an ultradwarf bermudagrass.

Another stress factor that occurs on the putting greens is plant-parasitic nematodes. Putting greens were sampled and many of the thin areas contain high nematode counts that weaken bermudagrass roots during stressful periods. The chemical Curfew (1,3-D) is currently the only effective nematicide for Florida golf courses, and I recommend Curfew be applied to the putting greens each summer. Curfew cannot eradicate nematodes but temporarily reduces nematode populations and improves bermudagrass rooting. Other important cultural practices include raising mowing heights during times of stress and increasing fertilization and irrigation frequency as roots become weakened.

Soil layering from previous sodding practices is also a significant stress factor, as the soil acts as a visible barrier impeding water flow to the rootzone and root penetration. During wet times, these areas remain saturated and hinder root growth, and during dry times, these areas dry out more quickly due to the weakened root system. Increased core aeration is recommended to disrupt soil layering and provide channels for deeper root penetration. Several years ago an excellent core aeration program was implemented with three hollow-tine aerations and two winter "ventings" with solid-tines. Over the past few years, core aeration practices have been reduced to twice yearly with small diameter hollow tines. Organic matter accumulation is a continual struggle on golf courses in our region, and I recommend implementing the previous program of three summer aerations with 5/8-inch hollow tines and two winter ventings each year.



The thin areas will continue to heal now that increased soil temperatures are occurring, but would benefit from dark substances like dyed topdressing sand and dark pigments like PAR or Foursome (see *Liquid Overseed*). Some areas might require plugging with grass from a nursery green and a good rule of thumb is to use plugs when greater than 50% of an area larger than one square foot is bare.



OTHER

It was mentioned that there are only six staff members maintaining nearly 100 acres of turf at Manatee Golf Club and I am surprised and quite pleased to see the level of detail that currently exists with such a small staff. This point is especially significant with Mr. Keene overseeing two golf courses.

CLOSING STATEMENTS

On behalf of the USGA Green Section, it was a pleasure visiting Manatee Golf Club. The USGA Green Section also uses webcasting extensively to share a wide variety of information including turfgrass management, regional updates, turfgrass research, and golf course construction topics. These webcasts are provided free of charge to everyone as a service to the game. A current list of free webcasts and all previously recorded meetings are available at our portal— <https://gsportal.usga.org>.

Since 1921, the USGA Green Section has published information on the proper maintenance and upkeep of golf courses. Published under various titles, the Green Section Record magazine, which many consider the authoritative voice on golf course management, debuted in May 1963. In July 2010, the print publication changed to a weekly digital magazine offering the latest information on golf course management, turfgrass culture, environmental issues, research, and economic sustainability. Subscription is free, and anyone can sign up for The Record by going to http://www.usga.org/course_care/green_section_record/Green-Section-Record/ and click the *Sign Up Here* tab.

The USGA strives to provide golf courses with the most concise, up-to-date information to improve the game of golf and the surrounding environment. Your club's membership in the USGA and support of the Green Section makes this research effort possible. I hope you find the information in this report and the accompanying literature useful to improving golf course playing conditions. Please do not hesitate to call if I can be of any assistance in the future.

Sincerely,

Todd Lowe
Senior Agronomist, Florida Region
USGA Green Section