

	<u>7/26/23</u>	<u>7/31/24</u>
Humidity/Air Temperature	50%/80°	71%/88°
Green's Soil Temperature	(avg)74°	(avg)82°

WATER	Acceptable Range For Water Sample	Hole #9 <u>7/26/23</u>	Hole #14 <u>7/31/24</u>
EC	<2.25 mmhos/cm	0.32	0.24
Sodium		25.21	20.21
Calcium	20 - 60 ppm	23.60	15.88
Magnesium	10 - 25 ppm	6.62	4.62
Potassium	5 - 20 ppm	2.87	2.42
Sulfur	30 - 90 ppm	7.00	9.54
Bicarbonate	<120 ppm	96.25	68.53
Boron	<0.67 ppm	0.08	<0.05
Chloride	<177 ppm	43.40	37.96



GREENS	Acceptable Range For Standard Soil Sample	3,14(avg) <u>7/26/23</u>	3,14(avg) <u>7/31/24</u>	6 <u>7/26/23</u>	6 <u>7/31/24</u>	9 <u>7/26/23</u>	9 <u>7/31/24</u>
Organic Matter (Humus)	2 - 3%	2.96	2.72	0.86	0.87	1.81	1.27
Sulfur	50 - 100 ppm	15.50	17.50	6.00	5.00	7.00	7.00
Mehlich III - Phosphorus	350 lbs/acre	1,083.00	1,154.00	151.00	133.00	311.00	348.00
Calcium	68%	74.55	71.80	67.36	71.37	71.64	69.07
Magnesium	15%	10.99	10.18	15.50	9.48	13.44	10.52
Potassium	5%	2.09	2.31	2.75	3.52	3.38	3.63
Sodium	<2%	2.39	1.72	3.41	3.07	2.45	2.69
Boron	1 - 1.5 ppm	0.67	0.67	<0.20	0.25	0.37	0.42
Iron	120 ppm	371.50	396.00	103.00	95.00	225.00	256.00
Manganese	50 ppm	17.50	16.00	10.00	10.00	11.00	9.00

	Green #2 Below 0"	Green #4 0- 8"	Green #14 0- 4"	Green #14 Below 4"	Greens Topdress Sand	USGA Recommendations
Clay	1.50	0.20	0.20	22.70	0.20	<= 5.0%
Silt	3.00	2.30	0.20	5.10	0.70	<= 3.0%
Sand	94.70	95.70	95.80	68.50	99.10	94 - 100%
Gravel	0.80	1.80	3.80	3.70	0.00	
Organic Material	0.84	1.47	2.95	3.19	<0.10	
Sieve #:						
Fine Gravel 10	0.80	1.80	3.80	3.70	0.00	2.0mm <= 3.0%
Very Coarse Sand 18	2.50	5.40	3.50	6.90	0.30	2.0mm + 1.0mm <= 10%
Coarse Sand 35	18.00	22.20	25.00	16.90	26.40	
Medium Sand 60	47.40	44.10	47.40	24.30	50.70	0.5mm + 0.25mm >= 60%
Fine Sand 100	17.80	18.70	16.10	11.00	18.60	0.15mm <= 20%
Very Fine Sand 140	5.40	4.10	2.50	8.60	2.90	0.106mm + 0.053mm <= 5.0%
Very Fine Sand 270	3.70	1.30	1.40	0.80	0.20	
Infiltration Rate in/hr	6.60	1.7"	n/r	<0.5"	23.0"	Greater than 6" per hour
Coefficient of Uniformity	3.32	2.72	2.47	7.43	2.38	1.8 to 3.5 for peat and sand mixes

Green #2



Nutrient Deficiencies

		Mg	K	Mn
GREEN	3	274	88	16
GREEN	6	58	35	10
GREEN	9	98	55	9
GREEN	14	184	78	16

Magnesium can be added in the form of Pro-Mag 36 at a rate of 3 pounds of product per 1,000 sq ft at aerification on greens 6 & 9.

Potassium can be added in the form of 0-0-50 at a rate of 2 pounds of product per 1,000 sq ft for the next two months.

Manganese can be added in the form of Manganese Oxide at a rate of 3 pounds of product per 1,000 sq ft in September through Winter. (if ground is not frozen)

Comments and next Level Cultural Practices

- The Green #2 core sample does seem like #4 in that it there is not distinct layering in the profile. For example, Green #14 does have that native soil layer at about 4" deep in the green. When we go over the report, I want to make sure I am grouping the greens correctly with regards to their physical make up.
- The water sample was like the same time last year and after a year and a half, the chemistry of the water is good. There is low sodium, bicarbonates and chloride. Those seem to be the most detrimental to turf. I don't see anything on the course that the water is a concern.
- I have showed the deficiencies in the chart above. Manganese will be an ongoing job until you reach 50-80 ppm. However, it can be achieved in a season or two if you can make monthly applications. The potassium levels range from low to moderately low due to different soil types. (some are sandier than others, in the rootzone) On green #6 and #9, magnesium levels are below an acceptable level, in my opinion.

