Client: East Orange Golf Course

Fall 2023 Report

	9/19/20	10/9/23
Humidity/Air Temperature	40%/62°	45%/60°
Green Temperature	(avg)54.66°	(avg)52°
Fairway Temperature	(avg)62.06°	(avg)56.4°

WATER	Acceptable Range For Water Sample	Sprinkler Head 9/19/20	Sprinkler Head 10/9/23
EC	<2.25 mmhos/cm	0.83	0.92
Sodium		24.68	23.12
Calcium	20 - 60 ppm	101.10	108.86
Magnesium	10 - 25 ppm	32.80	35.25
Potassium	5 - 20 ppm	3.08	1.71
Sulfur	30 - 90 ppm	49.44	48.31
Bicarbonate	<120 ppm	207.64	253.28
Boron	<0.67 ppm	0.12	0.11
Chloride	<177 ppm	128.00	145.70

TEES	Acceptable Range For Standard Soil Sample	7,12avg) 9/19/20	7,12(avg) 10/9/23
Organic Matter (Humus)	2 - 3%	4.03	3.95
Sulfur	50 - 100 ppm	24.00	16.50
Mehlich III - Phosphorus	350 lbs/acre	886.50	1,278.00
Calcium	68%	66.19	70.30
Magnesium	15%	13.61	11.14
Potassium	5%	4.36	6.59
Sodium	<2%	1.02	1.20
Boron	1 - 1.5 ppm	0.60	0.78
Iron	120 ppm	276.50	346.50
Manganese	50 ppm	18.50	18.00

FAIRWAYS	Acceptable Range For Standard Soil Sample	4,7,12(avg) 9/19/20	4,7,12(avg) 10/9/23
Organic Matter (Humus)	2 - 3%	4.96	4.92
Sulfur	50 - 100 ppm	16.67	17.33
Mehlich III - Phosphorus	350 lbs/acre	213.67	215.33
Calcium	68%	59.83	63.48
Magnesium	15%	13.96	14.71
Potassium	5%	2.62	2.52
Sodium	<2%	1.12	1.61
Boron	1 - 1.5 ppm	0.59	0.67
Iron	120 ppm	179.67	186.00
Manganese	50 ppm	30.67	43.00

GREENS	Acceptable Range For Standard Soil Sample	7,12(avg) 9/19/20	7,12(avg) 10/9/23
Organic Matter (Humus)	2 - 3%	3.46	3.38
Sulfur	50 - 100 ppm	18.00	17.50
Mehlich III - Phosphorus	350 lbs/acre	1,001.00	1,163.00
Calcium	68%	75.68	75.26
Magnesium	15%	13.79	13.50
Potassium	5%	2.59	3.44
Sodium	<2%	1.13	1.78
Boron	1 - 1.5 ppm	0.68	0.66
Iron	120 ppm	298.00	377.00
Manganese	50 ppm	14.00	16.50

TEES	Acceptable Range For Saturated Paste Sample	7 9/19/20	7 10/9/23
Nitrate -KBG	5 - 10 ppm	16.10	4.70
Phosphorus	2 - 10 ppm	0.57	2.23
Potassium	40 - 100 ppm	31.00	37.00
Calcium	60 - 200 ppm	63.32	19.42
Magnesium	20 - 70 ppm	14.96	4.47
Sodium	0 - 30 ppm	10.45	7.79
Soluble Salts	<1,920 ppm	308.00	161.00
Bicarbonate	<60 ppm	68.30	56.87
Chloride	<1,000 ppm	37.00	17.00
SAR	<4%	0.31	0.41

FAIRWAYS	Acceptable Range For Saturated Paste Sample	4,7(avg) 9/19/20	4,7(avg) 10/9/23
Nitrate - Ryegrass	5 - 10 ppm	1.75	7.50
Phosphorus	2 - 10 ppm	0.15	0.29
Potassium	40 - 100 ppm	8.42	7.47
Calcium	60 - 200 ppm	39.69	31.22
Magnesium	20 - 70 ppm	11.58	8.71
Sodium	0 - 30 ppm	11.50	12.77
Soluble Salts	<1,920 ppm	234.50	178.00
Bicarbonate	<60 ppm	53.45	35.04
Chloride	<1,000 ppm	44.50	35.50
SAR	<4%	0.42	0.52

GREENS	Acceptable Range For Saturated Paste Sample	7 9/19/20	7 10/9/23
Nitrate - 007 Bentgrass	1-3 ppm	<0.5	3.80
Phosphorus	2 - 7 ppm	0.49	1.00
Potassium	25-40 ppm	17.08	21.65
Calcium	50- 75 ppm	25.46	22.64
Magnesium	15-30 ppm	7.04	5.36
Sodium	0 - 30 ppm	7.07	9.19
Soluble Salts	<1,000 ppm	189.00	146.00
Bicarbonate	<60 ppm	53.69	39.17
Chloride	<200 ppm	16.00	15.00
SAR	<4%	0.32	0.45

SOIL AND WATER CONSULTING

Nutrient Deficiencies

		Ca	Mg	K	Mn
TEE	4	922	104	78	15
TEE	7	2880	240	275	25
TEE	12	3062	332	265	11
FAIRWAY	4	2994	426	113	52
FAIRWAY	7	2780	378	94	25
FAIRWAY	12	2606	362	117	52
GREEN	4	608	88	41	15
GREEN	7	2790	296	140	17
GREEN	12	2256	246	88	16

Calcium can be added to the sand-based tees in the form of gypsum at a rate of 10 pounds of product per 1,000 sq ft.

Magnesium/Potassium can be added to the sand-based tees and greens in the form of 0-0-22 at a rate of 4 pounds of product per 1,000 sq ft.

Potassium can be added to the fairways in the form of 0-0-50 at a rate of 100 pounds of product per acre. (Early Spring?)

Manganese can be added to all greens in the form of Manganese Oxide at a rate of 3 pounds of product per 1,000 sq ft in October, November and December.

Comments and Next Level Cultural Practices

- The 0-0-50 application for fairways could be applied now or wait until early Spring
- Spray weeds/grass on cart paths
- The recent nitrogen application on the fairways did show on the testing and looked helpful during my visit
- Overall, the course was in good condition with no visual scarring from the previous season
- The greens were the best I have seen them! The main goal for 2024 with regards to the greens should be to maintain the fine leaf texture. 007 bentgrass is best performing in the state you have them currently