



Client: Tucson Country Club
Summer 2024 Report

	<u>6/7/22</u>	<u>6/20/23</u>	<u>7/1/24</u>
Humidity/Air Temperature	20%/103°	10%/104°	50%/95°
Greens Temperature	(avg)88.55°	n/r	(avg)85.5°
Fairway Temperature	(avg)87.1°	(avg)82.3°	(avg)87.5°

WATER	Acceptable Range For Water Sample	Hole #6 <u>6/7/22</u>	Hole #2 Pond <u>6/20/23</u>	Hole #3 <u>7/1/24</u>
EC	<2.25 mmhos/cm	0.32	0.38	0.31
Sodium		39.15	56.26	31.98
Calcium	20 - 60 ppm	24.15	20.71	23.97
Magnesium	10 - 25 ppm	1.74	2.69	1.92
Potassium	5 - 20 ppm	1.37	1.88	3.20
Sulfur	30 - 90 ppm	23.91	33.41	22.54
Bicarbonate	<120 ppm	140.38	139.42	120.23
Boron	<0.67 ppm	0.07	0.07	<0.05
Chloride	<177 ppm	13.45	28.08	19.57



SOIL AND WATER CONSULTING

TEE	Acceptable Range For Tissue Sample	12 <u>7/1/24</u>
Nitrogen	2.49%-4.56%	3.15
Phosphorus	0.26%-0.38%	0.39
Potassium	0.95% - 1.97%	2.36
Calcium	0.50%-0.90%	0.51
Magnesium	0.13%-0.16%	0.15
Sodium	622-1709 ppm	1,446.30

FAIRWAY	Acceptable Range For Tissue Sample	12 <u>7/1/24</u>
Nitrogen	2.49%-4.56%	2.64
Phosphorus	0.26%-0.38%	0.43
Potassium	0.95% - 1.97%	2.05
Calcium	0.50%-0.90%	0.47
Magnesium	0.13%-0.16%	0.11
Sodium	622-1709 ppm	1,760.60

GREENS	Acceptable Range For Tissue Sample	3,12 (avg) <u>7/1/24</u>
Nitrogen	3.0%-6.5%	3.76
Phosphorus	0.2%-0.55%	0.81
Potassium	0.86%-2.55%	3.05
Calcium	0.21%-0.50%	0.71
Magnesium	0.09%-0.22%	0.36
Sodium	506- 2264 ppm	1,242.20

TEES	Acceptable Range For Alkaline Soils Sample	3,12(avg) 6/14/21	3,12(avg) 7/1/24
Organic Matter (Humus)	2 - 3%	3.45	2.93
Sulfur	12 - 16 ppm	43.00	41.50
Olsen - Phosphorus	13 - 20 ppm	11.00	5.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	4,445.00	3,258.00
Magnesium	>7% base saturation or at least 200 lbs/acre	13.12%/479	9.52%/251
Potassium - TEC of 0 - 35	100 ppm	273.50	242.50
Manganese	>50 ppm	65.00	53.00

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	3,12(avg) 6/14/21	3,12(avg) 7/1/24
Organic Matter (Humus)	2 - 3%	5.08	2.00
Sulfur	12 - 16 ppm	63.50	19.50
Olsen - Phosphorus	13 - 20 ppm	15.50	15.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	5,274.00	3,269.00
Magnesium	>7% base saturation or at least 200 lbs/acre	13.6%/587	8.25%/210
Potassium - TEC of 0 - 35	100 ppm	332.50	258.50
Manganese	>50 ppm	40.00	58.50

GREENS	Acceptable Range For Alkaline Soils Sample	3,12(avg) 6/14/21	3,12(avg) 7/1/24
Organic Matter (Humus)	2 - 3%	1.26	0.63
Sulfur	12 - 16 ppm	27.50	11.50
Olsen - Phosphorus	13 - 20 ppm	13.00	8.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	2,589.00	1,632.00
Magnesium	>7% base saturation or at least 200 lbs/acre	16.81%/416	16.27%/227
Potassium - TEC of 0 - 35	150 ppm	347.50	145.00
Manganese	>50 ppm	73.00	12.00

TEE	Acceptable Range For Saturated Paste Sample	3 6/14/21	3 7/1/24
Nitrate - Bermudagrass	5 - 10 ppm	23.30	16.80
Phosphorus	2 - 10 ppm	0.76	0.84
Potassium	40 - 100 ppm	21.24	22.84
Calcium	60 - 200 ppm	55.13	51.68
Magnesium	20 - 70 ppm	7.60	7.19
Sodium	0 - 30 ppm	163.41	83.60
Soluble Salts	<1,920 ppm	614.00	531.00
Bicarbonate	<60 ppm	121.45	109.72
Chloride	<1,000 ppm	99.00	54.00
SAR	<4%	5.47	2.89

FAIRWAY	Acceptable Range For Saturated Paste Sample	3 6/14/21	3 7/1/24
Nitrate - Bermudagrass	5 - 10 ppm	27.60	27.30
Phosphorus	2 - 10 ppm	3.07	1.42
Potassium	40 - 100 ppm	24.72	22.69
Calcium	60 - 200 ppm	53.11	46.62
Magnesium	20 - 70 ppm	8.02	6.91
Sodium	0 - 30 ppm	215.07	56.55
Soluble Salts	<1,920 ppm	719.00	410.00
Bicarbonate	<60 ppm	96.49	71.50
Chloride	<1,000 ppm	137.00	19.00
SAR	<4%	7.27	2.04

GREENS	Acceptable Range For Saturated Paste Sample	3,12(avg) 6/14/21	3,12(avg) 7/1/24
Nitrate - Bentgrass/Poa	1-3 ppm	7.00	7.90
Phosphorus	2 - 7 ppm	3.15	2.67
Potassium	25-40 ppm	21.45	14.77
Calcium	50- 75 ppm	30.05	21.19
Magnesium	15-30 ppm	5.13	5.97
Sodium	0 - 30 ppm	129.98	37.23
Soluble Salts	<1,000 ppm	481.00	348.00
Bicarbonate	<60 ppm	62.60	124.21
Chloride	<200 ppm	110.50	20.50
SAR	<4%	5.74	1.85

Nutrient Deficiencies

		P	Mn
TEE	3	7	55
TEE	12	3	51
FAIRWAY	3	24	42
FAIRWAY	12	6	75
GREEN	3	6	13
GREEN	12	10	11

Phosphorus can be added in the form of 11-55-00 at a rate of 3 pounds of product per 1,000 sq ft in August and September

Manganese can be added in the form of Manganese Oxide or Sulfate at a rate of 3 pounds of product per 1,000 sq ft in October through March 2025

Comments and Next Level Cultural Practices

- The Bermudagrass was the best it has been since I have been visiting there. Not overseeding and a quick start to the monsoon season certainly helped.
- Desert Control Nano particle clay was applied to #13 new tees the day of my visit.
- With a course wide app of 15-15-15 available in storage, I would recommend that application on rough and tees.
- Ball marks seemed worse on Pure Distinction Greens. There may be more ball marks overall, due to sodding greens, but the Dominator Greens seem to repair faster in the heat.