



Client: Tucson Country Club

Spring 2025 Report

	<u>3/23/23</u>	<u>3/12/24</u>	<u>3/6/25</u>
Humidity/Air Temperature	30%/65°	30%/77°	40%/66°
Greens Temperature	(avg)62.4°	(avg)60°	(avg)60°
Fairway Temperature	(avg)58.75°	(avg)58°	(avg)59°

WATER	Acceptable Range For Water Sample	Hole #1 3/23/23	Hole #9 3/12/24	Hole #15 Pond 3/6/25
EC	<2.25 mmhos/cm	0.30	0.33	0.51
Sodium		28.98	61.18	80.73
Calcium	20 - 60 ppm	30.89	20.63	29.30
Magnesium	10 - 25 ppm	1.98	1.03	1.59
Potassium	5 - 20 ppm	2.06	1.55	2.51
Sulfur	30 - 90 ppm	16.89	19.38	36.31
Bicarbonate	<120 ppm	129.83	169.89	168.39
Boron	<0.67 ppm	<0.05	0.10	0.13
Chloride	<177 ppm	20.25	21.11	59.06



SOIL AND WATER CONSULTING

TEE	Acceptable Range For Tissue Sample	5 3/6/25
Nitrogen	2.49%-4.56%	n/r
Phosphorus	0.26%-0.38%	n/r
Potassium	0.95% - 1.97%	n/r
Calcium	0.50%-0.90%	n/r
Magnesium	0.13%-0.16%	n/r
Sodium	622-1709 ppm	n/r

FAIRWAY	Acceptable Range For Tissue Sample	5 3/6/25
Nitrogen	2.49%-4.56%	n/r
Phosphorus	0.26%-0.38%	n/r
Potassium	0.95% - 1.97%	n/r
Calcium	0.50%-0.90%	n/r
Magnesium	0.13%-0.16%	n/r
Sodium	622-1709 ppm	n/r

GREENS	Acceptable Range For Tissue Sample	5,14(avg) 3/6/25
Nitrogen	3.0%-6.5%	n/r
Phosphorus	0.2%-0.55%	n/r
Potassium	0.86%-2.55%	n/r
Calcium	0.21%-0.50%	n/r
Magnesium	0.09%-0.22%	n/r
Sodium	506- 2264 ppm	n/r

TEES	Acceptable Range For Alkaline Soils Sample	5,14(avg) 3/15/22	5,14(avg) 3/6/25
Organic Matter (Humus)	2 - 3%	3.19	3.31
Sulfur	12 - 16 ppm	20.50	18.50
Olsen - Phosphorus	13 - 20 ppm	9.50	14.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	3,553.00	3,942.00
Magnesium	>7% base saturation or at least 200 lbs/acre	9.26%/249	9.01%/268
Potassium - TEC of 0 - 35	100 ppm	148.50	183.00
Manganese	>50 ppm	38.50	63.00

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	5,14(avg) 3/15/22	5,14(avg) 3/6/25
Organic Matter (Humus)	2 - 3%	3.73	4.42
Sulfur	12 - 16 ppm	18.50	25.50
Olsen - Phosphorus	13 - 20 ppm	11.50	20.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	3,063.00	3,735.00
Magnesium	>7% base saturation or at least 200 lbs/acre	10.25%/254	9.3%/292
Potassium - TEC of 0 - 35	100 ppm	246.00	344.50
Manganese	>50 ppm	26.50	40.50

GREENS	Acceptable Range For Alkaline Soils Sample	5,14(avg) 3/15/22	5,14(avg) 3/6/25
Organic Matter (Humus)	2 - 3%	0.82	0.79
Sulfur	12 - 16 ppm	20.00	7.00
Olsen - Phosphorus	13 - 20 ppm	11.50	7.50
Calcium - TEC of 6 - 12	1,000 lbs/acre	1,906.00	1,973.00
Magnesium	>7% base saturation or at least 200 lbs/acre	12.23%/202	10.57%/134
Potassium - TEC of 0 - 35	150 ppm	288.50	118.50
Manganese	>50 ppm	57.00	11.50

TEE	Acceptable Range For Saturated Paste Sample	14 3/15/22	14 3/6/25
Nitrate - Ryegrass	5 - 10 ppm	<0.5	<0.5
Phosphorus	2 - 10 ppm	2.99	1.67
Potassium	40 - 100 ppm	24.37	17.83
Calcium	60 - 200 ppm	38.61	40.23
Magnesium	20 - 70 ppm	7.05	7.97
Sodium	0 - 30 ppm	77.85	98.29
Soluble Salts	<1,920 ppm	358.00	476.00
Bicarbonate	<60 ppm	155.66	241.77
Chloride	<1,000 ppm	33.00	62.00
SAR	<4%	3.02	3.70

FAIRWAY	Acceptable Range For Saturated Paste Sample	14 3/15/22	14 3/6/25
Nitrate - Ryegrass	5 - 10 ppm	0.70	11.80
Phosphorus	2 - 10 ppm	1.64	4.16
Potassium	40 - 100 ppm	15.81	36.47
Calcium	60 - 200 ppm	51.28	46.86
Magnesium	20 - 70 ppm	8.28	11.00
Sodium	0 - 30 ppm	44.10	148.80
Soluble Salts	<1,920 ppm	320.00	621.00
Bicarbonate	<60 ppm	102.89	206.58
Chloride	<1,000 ppm	35.00	130.00
SAR	<4%	1.51	5.08

GREENS	Acceptable Range For Saturated Paste Sample	5,14(avg) 3/15/22	5,14(avg) 3/6/25
Nitrate - Dominator Bentgrass	1-3 ppm	<0.8	<0.5
Phosphorus	2 - 7 ppm	1.00	0.95
Potassium	25-40 ppm	9.17	8.61
Calcium	50- 75 ppm	16.52	15.34
Magnesium	15-30 ppm	3.52	3.98
Sodium	0 - 30 ppm	53.25	54.10
Soluble Salts	<1,000 ppm	230.75	230.50
Bicarbonate	<60 ppm	104.43	105.94
Chloride	<200 ppm	36.00	35.00
SAR	<4%	3.04	3.23

Nutrient Deficiencies

		P	Ca	Mg	K
GREEN	5	1.05	17.69	4.88	9.73
GREEN	14	0.84	12.99	3.07	7.48

Phosphorus can be added in the form of NatureSafe or Earthworks at the next greens aerification

Calcium can be added in the form of Gypsum at the rate of 10 pounds of product per 1,000 sq ft at the next **2** greens aerification

Potassium/Magnesium can be added in the form of 0-0-22 at the rate of 5 pounds of product per 1,000 sq ft at the next **2** greens aerification

Manganese can be added in the form of Manganese Sulfate or Manganese Oxide at a rate of 3 pounds per 1,000 sq ft at the next greens aerification

Comments and Next Level Cultural Practice

- I highlighted the Saturated Paste deficiencies on the greens. Even though your water is relatively low in sodium, the sodium levels on the greens is more than double all the “good salts”. Although in an acceptable range, bicarbonates are a little high and could use the Gypsum to help neutralize bicarbonates in the soil.
- I used a new tool on the greens to test their stability in the top 1”. The Shear Strength tool measured a 19. Five on this tool would tell us that the greens shouldn’t be open. 19 is a solid number that shows density is good and root mass is holding it all together. I will be using the tool in my travels to fine tune the ranges for different grass and greens-mixes.
- I did The new sand-based tee on #15 so we could see differences compared to your older tees. That tee needs an application of 0-0-22. I would do the same to any new tee that came from the renovation.
- Kent was off that day recovering from recent surgery.

