



Client: Los Robles Greens Golf Course
Spring 2025 Report

	<u>3/9/23</u>	<u>3/19/24</u>	<u>4/24/25</u>
Humidity/Air Temperature	50%/65°	50%/71°	65%/68°
Greens Temperature	(avg)45.8°	(avg)58°	(avg)60°
Fairway Temperature	(avg)47.3°	(avg)57°	(avg)60°

WATER	Acceptable Range For Water Sample	Hole #14 3/9/23	Hole #12 3/19/24	Hole #5 4/24/25
pH	6.50	7.23	7.34	8.16
EC	<2.25 mmhos/cm	0.82	0.66	1.08
Sodium		54.59	44.97	81.90
Calcium	20 - 60 ppm	62.23	50.83	58.52
Magnesium	10 - 25 ppm	40.94	28.95	60.79
Potassium	5 - 20 ppm	14.73	4.68	2.64
Sulfur	30 - 90 ppm	203.92	134.88	287.92
Bicarbonate	<120 ppm	207.36	182.74	150.14
Boron	<0.67 ppm	0.12	0.12	0.22
Chloride	<177 ppm	74.55	59.91	104.51

TEE	Acceptable Range For Tissue Sample	5 4/24/25
Nitrogen	3.34%-5.10%	3.92
Phosphorus	0.35% - 0.55%	0.72
Potassium	2.0% - 3.42%	2.53
Calcium	0.25%-0.5%	0.54
Magnesium	0.16%-0.32%	0.38
Sodium	229-1107 ppm	1,517.00

FAIRWAY	Acceptable Range For Tissue Sample	5 4/24/25
Nitrogen	3.34%-5.10%	2.83
Phosphorus	0.35% - 0.55%	0.47
Potassium	2.0% - 3.42%	2.34
Calcium	0.25%-0.5%	0.39
Magnesium	0.16%-0.32%	0.20
Sodium	229-1107 ppm	1,792.20

GREENS	Acceptable Range For Tissue Sample	5,14(avg) 4/24/25
Nitrogen	3.0%-6.5%	3.06
Phosphorus	0.2%-0.55%	0.48
Potassium	0.86%-2.55%	1.66
Calcium	0.21%-0.50%	0.79
Magnesium	0.09%-0.22%	0.35
Sodium	506- 2264 ppm	1,095.35

TEES	Acceptable Range For Alkaline Soils Sample	5 3/14/19	14 4/24/25
Organic Matter (Humus)	2 - 3%	n/r	3.23
Sulfur	12 - 16 ppm	n/r	157.00
Olsen - Phosphorus	13 - 20 ppm	n/r	21.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	n/r	1,888.00
Magnesium	>7% base saturation or at least 200 lbs/acre	n/r	32.83%/810
Potassium - TEC of 0 - 35	100 ppm	n/r	128.00
Manganese	>50 ppm	n/r	16.00

FAIRWAYS	Acceptable Range For Alkaline Soils Sample	5 3/14/19	14 4/24/25
Organic Matter (Humus)	2 - 3%	8.48	9.40
Sulfur	12 - 16 ppm	14.00	147.00
Olsen - Phosphorus	13 - 20 ppm	32.00	19.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	5,018.00	3,842.00
Magnesium	>7% base saturation or at least 200 lbs/acre	30.69%/1,674	31.25%/1,630
Potassium - TEC of 0 - 35	100 ppm	570.00	646.00
Manganese	50-80 ppm	66.00	77.00

GREENS	Acceptable Range For Alkaline Soils Sample	5 3/14/19	5 4/24/25
Organic Matter (Humus)	2 - 3%	0.99	1.38
Sulfur	12 - 16 ppm	7.00	60.00
Olsen - Phosphorus	13 - 20 ppm	9.00	19.00
Calcium - TEC of 6 - 12	1,000 lbs/acre	1,486.00	770.00
Magnesium	>7% base saturation or at least 200 lbs/acre	17.33%/208	38.04%/388
Potassium - TEC of 0 - 35	150 ppm	49.00	89.00
Manganese	50-80 ppm	26.00	130.00



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TEE	Acceptable Range For Saturated Paste Sample	5 3/14/19	5 4/24/25
Nitrate - Bermuda Ryegrass	5 - 10 ppm	n/r	n/r
Phosphorus	2 - 10 ppm	n/r	n/r
Potassium	40 - 100 ppm	n/r	n/r
Calcium	60 - 200 ppm	n/r	n/r
Magnesium	20 - 70 ppm	n/r	n/r
Sodium	0 - 30 ppm	n/r	n/r
Soluble Salts	<1,920 ppm	n/r	n/r
Bicarbonate	<60 ppm	n/r	n/r
Chloride	<1,000 ppm	n/r	n/r
SAR	<4%	n/r	n/r

FAIRWAY	Acceptable Range For Saturated Paste Sample	5 3/14/19	5 4/24/25
Nitrate- Kikuyagrass	10 -15 ppm	32.50	n/r
Phosphorus	2 - 10 ppm	1.67	n/r
Potassium	40 - 100 ppm	39.70	n/r
Calcium	60 - 200 ppm	45.59	n/r
Magnesium	20 - 70 ppm	23.61	n/r
Sodium	0 - 30 ppm	103.68	n/r
Soluble Salts	<1,920 ppm	525.00	n/r
Bicarbonate	<60 ppm	226.96	n/r
Chloride	<1,000 ppm	46.00	n/r
SAR	<4%	3.10	n/r

GREENS	Acceptable Range For Saturated Paste Sample	5 3/14/19	5 4/24/25
Nitrate- Bentgrass/poa	1-3 ppm	4.00	3.40
Phosphorus	2 - 7 ppm	1.94	7.19
Potassium	25-40 ppm	12.19	22.40
Calcium	50- 75 ppm	30.93	33.36
Magnesium	15-30 ppm	8.72	22.76
Sodium	0 - 30 ppm	13.44	50.09
Soluble Salts	<1,000 ppm	242.00	413.00
Bicarbonate	<60 ppm	170.83	84.08
Chloride	<200 ppm	4.00	44.00
SAR	<4%	0.55	1.64

Average OM By Species

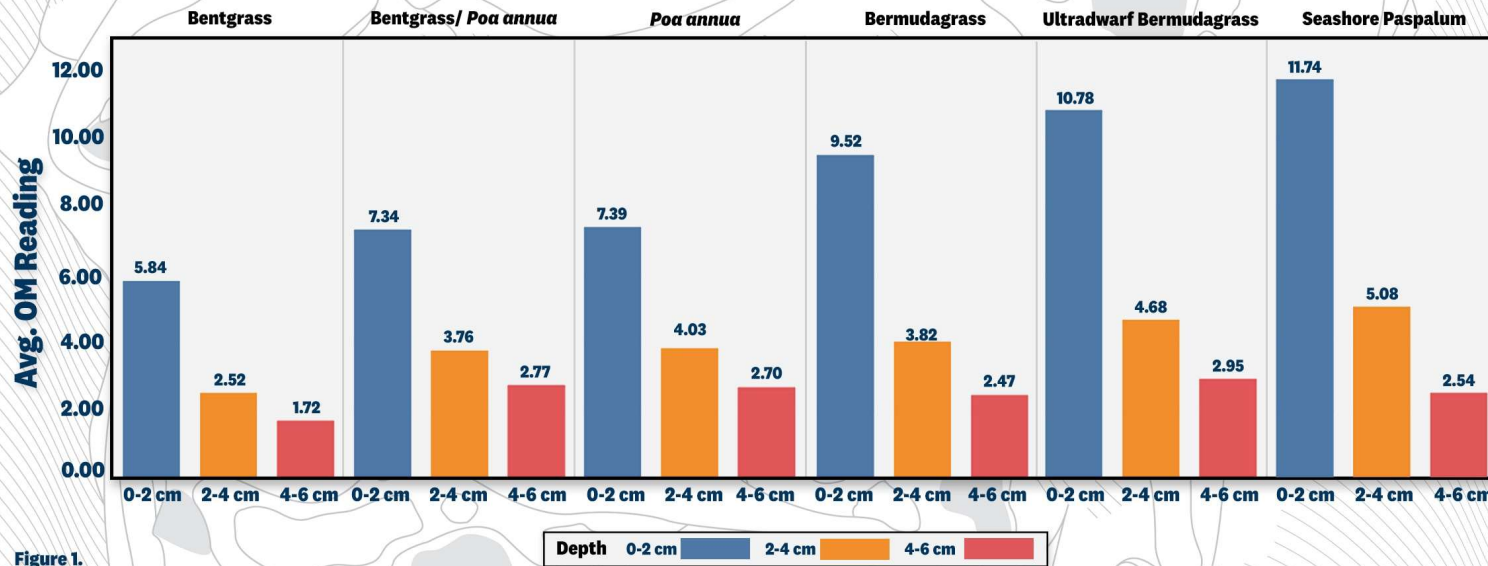


Figure 1.

<https://www.usga.org/content/usga/home-page/course-care/green-section-record/62/issue-22/are-you-managing-putting-green-organic-matter-or-is-it-managing-.html#sectionFilters=research&returnable>

Green #14 (4-2025)		USGA Research <u>National Averages (Bentgrass/poa annua)</u>
Organic Material 0-2cm	8.69	7.39
Organic Material 2-4cm	4.09	4.03
Organic Material 4-6cm	3.22	2.7

No Deficiencies currently

Comments and Next Level Cultural Practices

- Three samples were damaged in transit, so I will make a stop to see you in June to recollect.
- The data I put on this report is accurate. There was no sign of contamination of samples nor did shipping time seem to affect the results.
- The detail work on the course was very good and the fairways looked excellent!
- We should discuss in more detail the HCT injection. I am not sure I see a big enough reduction in bicarbonate levels and the pH has increased year over year.



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