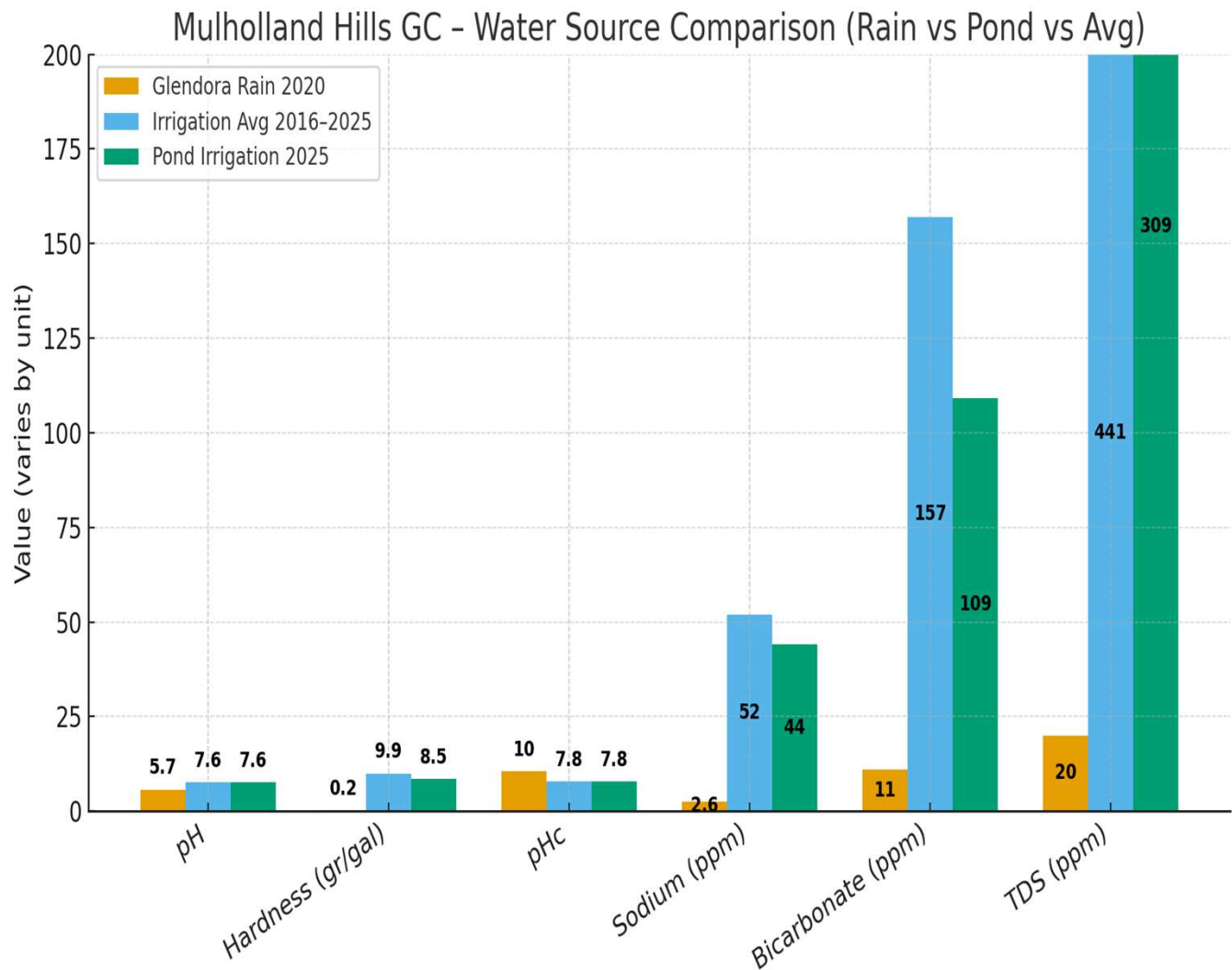




IRRIGATION WATER

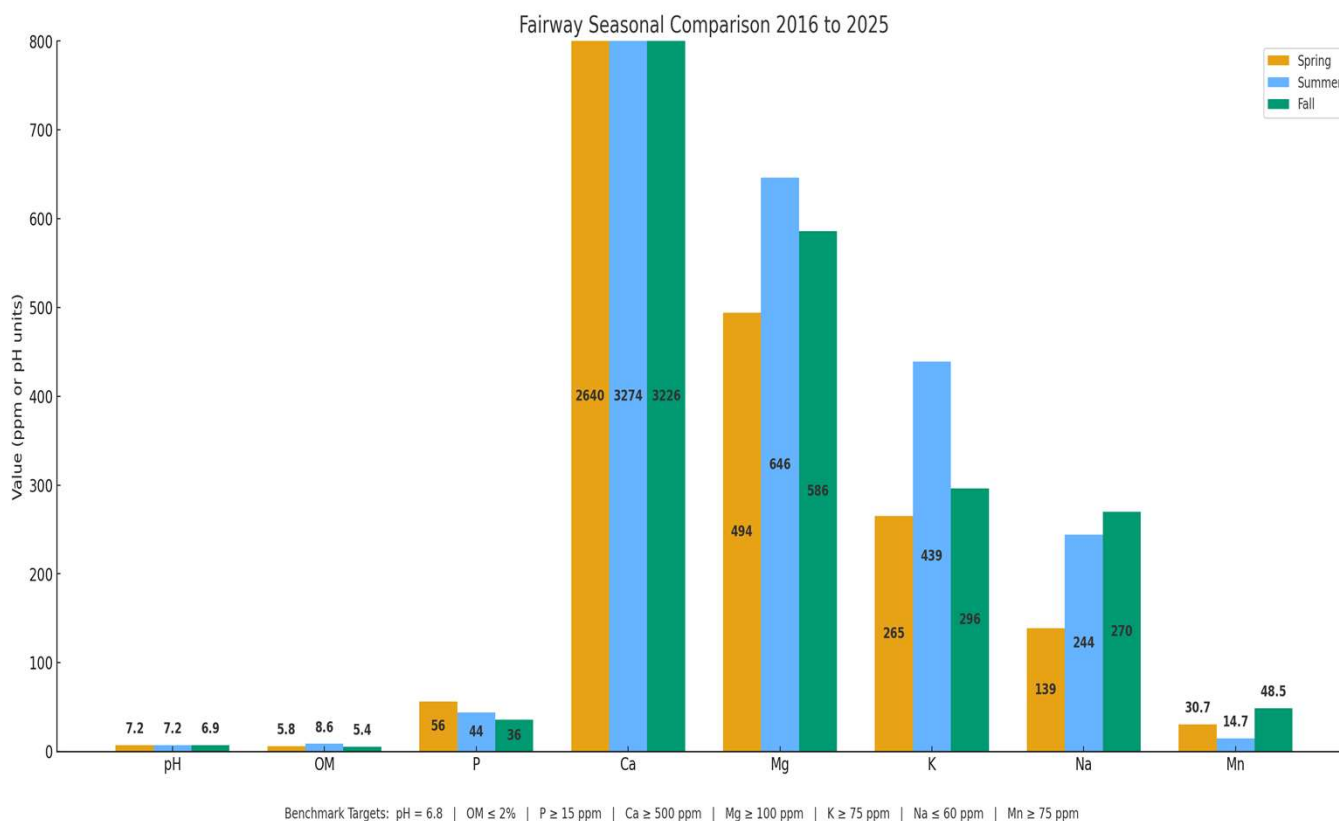


- The best irrigation water any golf course can receive is rain. I have never thought there was a perfect irrigation water and therefore setting acceptable ranges is not quite accurate enough. As this sample is new and the old samples were consistent for your water source, I have compared your water sample to rainwater samples I had collected in Glendora, CA in 2020.
- The “New Pond” water sample may be a little better than the potable water. However, because it is now fed with course and road run-off, seasonal sample collection will be helpful.





FAIRWAYS



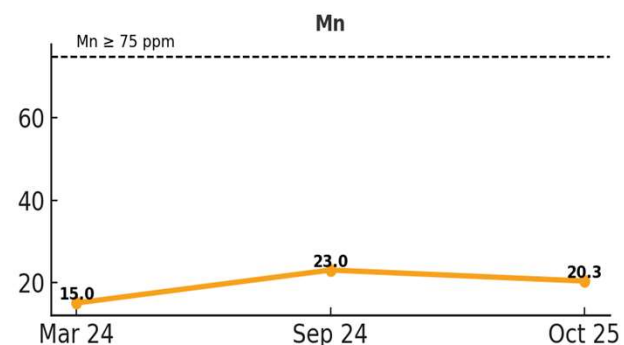
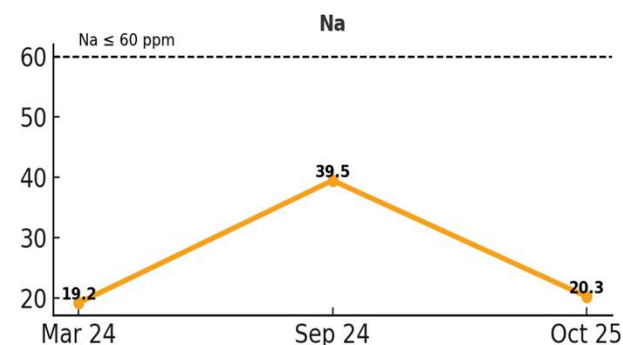
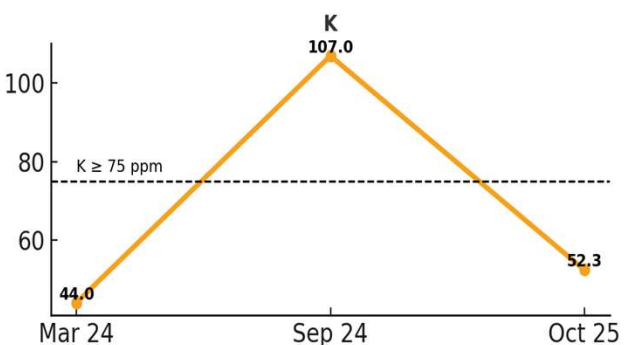
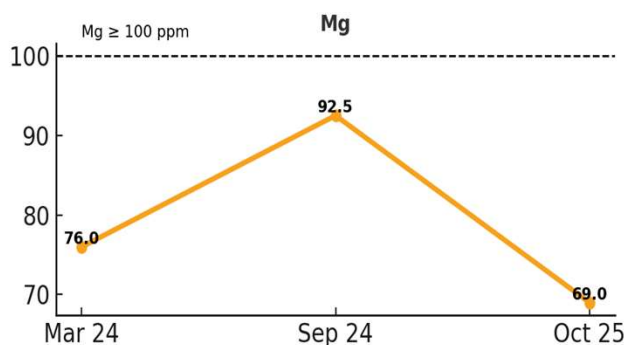
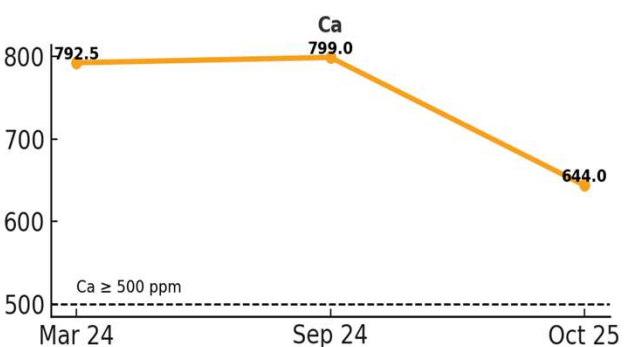
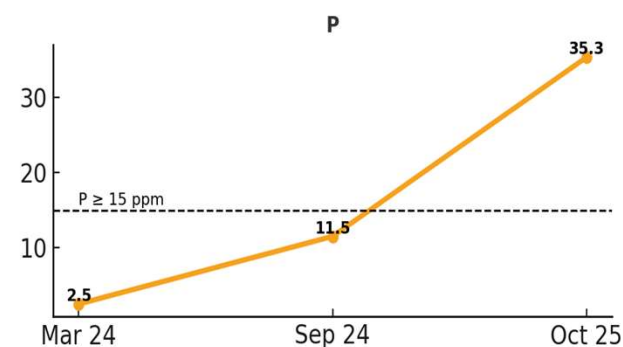
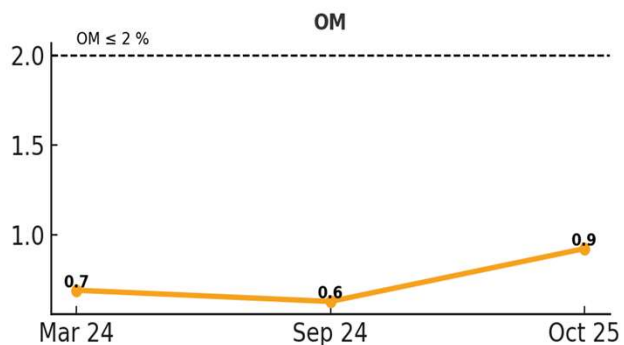
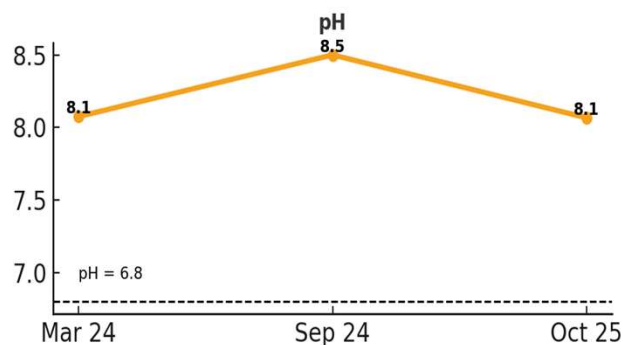
- You asked about fairways during my visit, so I went back over all the fairway samples I have collected through the years. Except for any cultivation that may have happened during the renovation process, the fairways are very stable and are essentially A neutral pH from season to season. That means that most of this nutrition in your heavy mineral soils is available. Although we should get on a routine of monitoring the tees and fairways with the greens, in the past year or so we focused on the green's progression. Certainly, converting to Bermuda will make things even easier growing on the fairways as it is more tolerant than cool season grasses.





GREENS

US OPEN Greens - Seasonal Trends



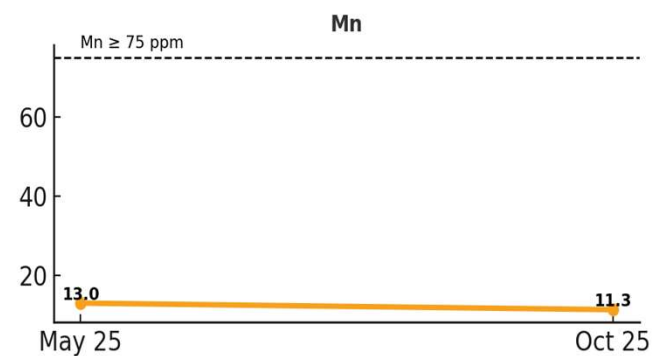
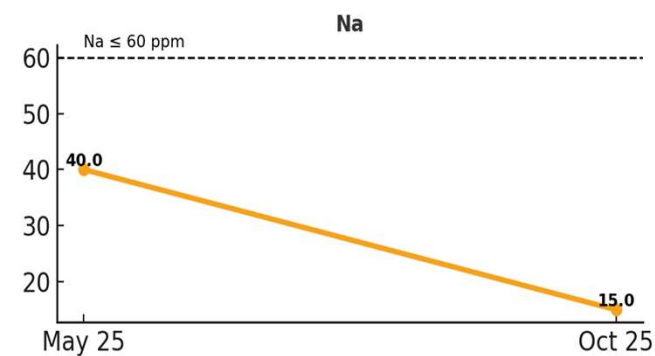
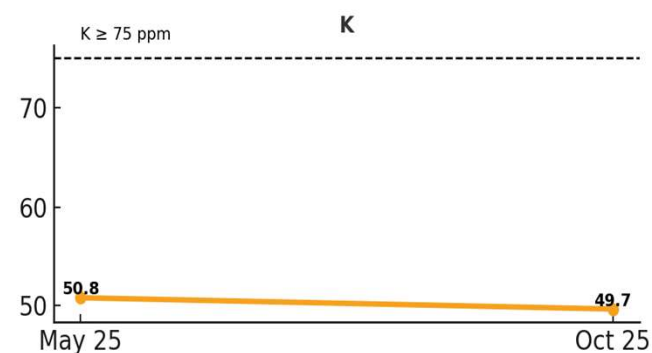
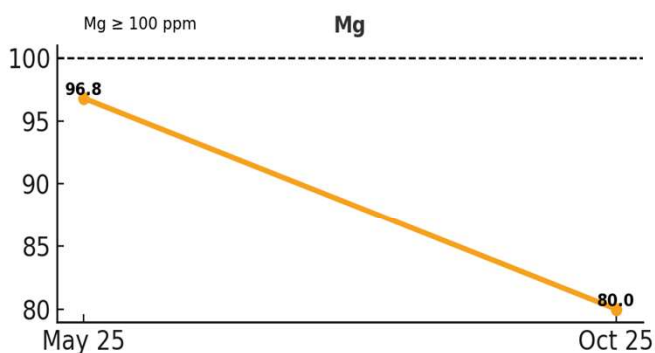
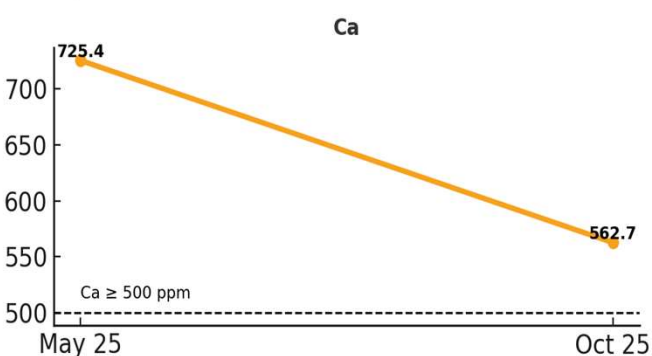
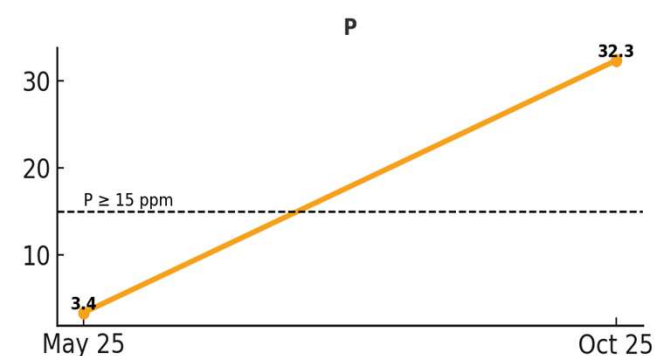
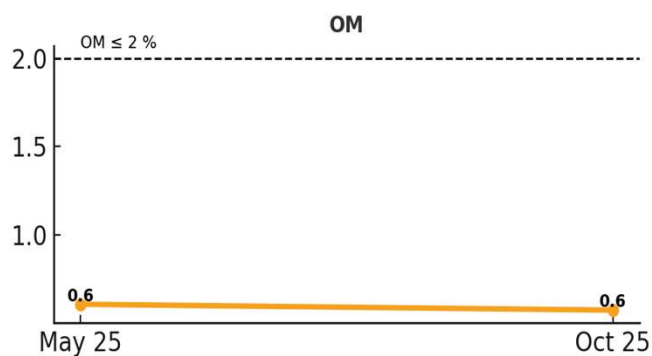
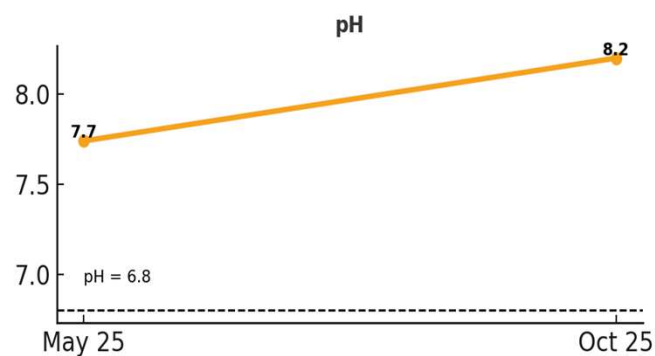
- The US Open Course greens need an application of 0-0-22 and continue to work on elevating manganese levels.





GREENS

WESTERN Greens - Seasonal Trends



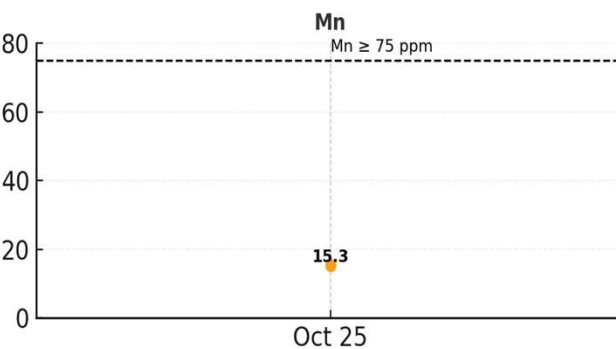
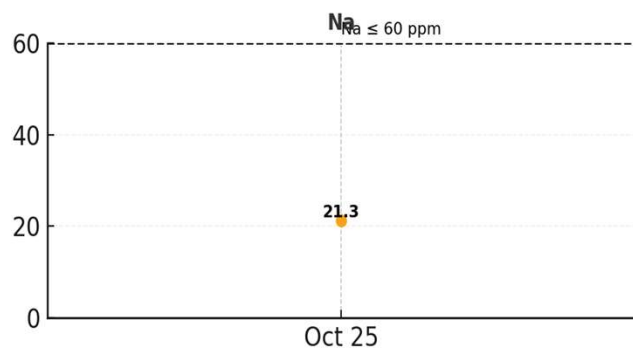
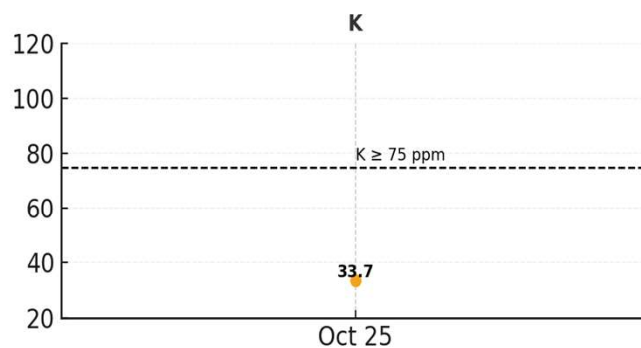
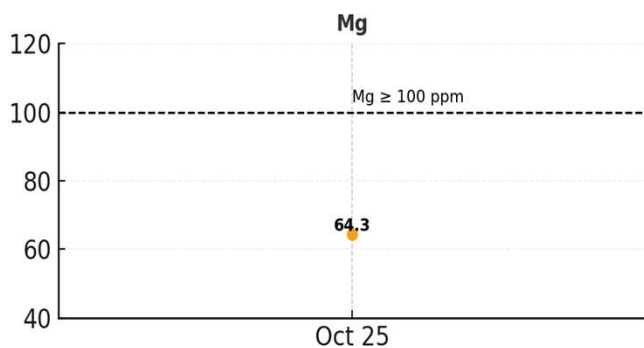
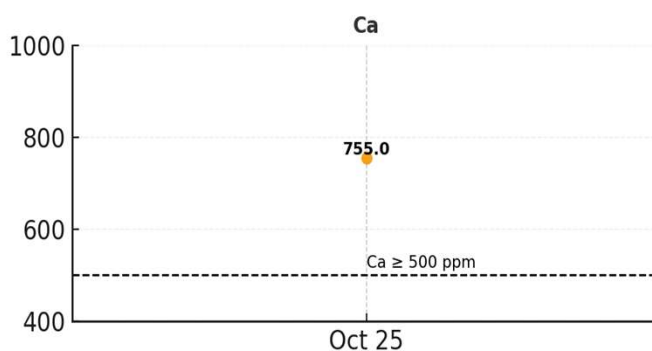
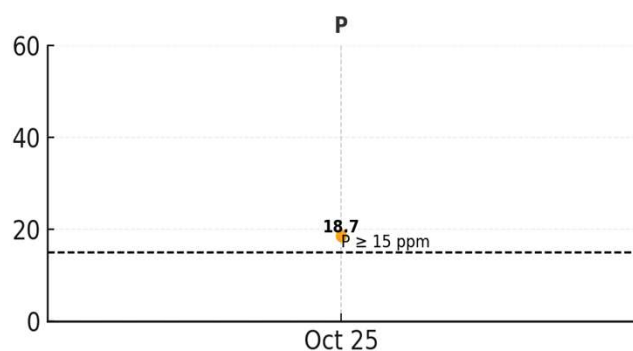
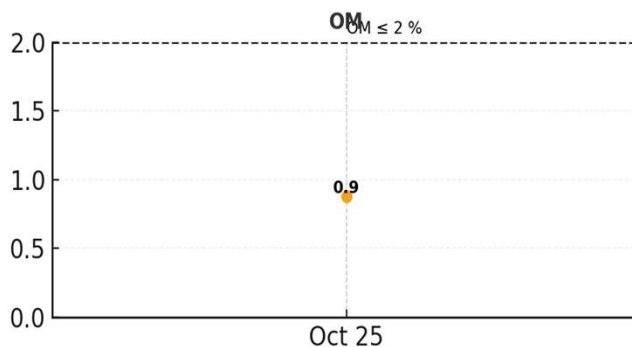
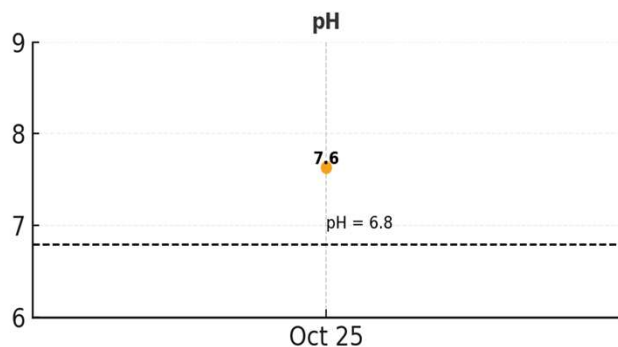
- The Western Course greens need an application of 0-0-22 and continued work increasing manganese levels.





GREENS

MASTERS Greens - Seasonal Trends



- No trends to report yet. The Masters Course greens need an application of 0-0-22 and continued work elevating manganese levels.



SUMMARY

FAIRWAYS – Overall Health Summary

- Calcium levels strong and consistent; structural stability is solid.
- Magnesium and potassium show seasonal swings but remain in workable ranges.
- Organic matter trending slightly high in some years—keep an eye on compaction/aeration needs.
- Sodium creeping upward in fall—worth monitoring to avoid infiltration issues.
- pH generally stable and within workable bounds across all seasons.

GREENS – Overall Health Summary

- pH stable across courses with minimal drift.
- Organic matter levels remain controlled; no major thatch threats.
- Phosphorus fluctuates but stays within functional performance range.
- Calcium and magnesium levels adequate—good structural balance.
- Sodium well-managed and not posing stress risk.
- Micronutrients (like manganese) consistent and healthy.

Soil pH & Nutrient Availability: Quick Guide for Bermuda Fairways (Southern California)

- Neutral pH (6.5–7.0) puts most nutrients in the sweet spot.
- Nitrogen, potassium, calcium, magnesium, and sulfur stay readily available, maximizing fertilizer efficiency.
- Phosphorus availability peaks—less tie-up with iron/aluminum (acidic soils) or calcium (alkaline soils).
- Micronutrients (Fe, Mn, Zn, Cu) remain accessible without drifting into toxicity.
- Bermudagrass responds with stronger color, better density, and improved stress tolerance.
- Microbial activity—especially nitrifiers—runs at high output, boosting conversion of ammonium to nitrate.
- Organic matter breaks down consistently, helping manage thatch levels.
- Balanced Ca/Mg improves soil aggregation → better infiltration and deeper rooting.
- Neutral pH reduces micronutrient lock-up common in higher-pH, irrigation-affected SoCal soils.

Bottom Line:

- Neutral pH gives Bermuda fairways a balanced nutrient profile, efficient fertilizer response, and stronger seasonal performance under Southern California conditions.



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