

SPRING 2017
Data Collection Report
Soil & Water Consulting



Jumping Brook Country Club



SOIL and WATER CONSULTING

Course Name: Jumping Brook Country Club

Date of Visit: April 19, 2017

	<u>9/23/15</u>	<u>4/23/16</u>	<u>10/11/16</u>	<u>4/19/17</u>
Humidity/Air Temperature	60%/75°	100%/65°	55%/65°	47%/57°
Greens Temperature	(avg) 62.3°	(avg) 58.9°	(avg)60°	(avg)60°

WATER	Acceptable Range For Water Sample	Pond <u>9/23/15</u>	Sprinkler head <u>4/23/16</u>	Pond #11 <u>10/11/16</u>	Green #6 <u>4/25/17</u>
EC	<2.25 mmhos/cm	0.23	0.28	0.16	0.16
Sodium		10.23	29.05	19.04	17.21
Calcium	20 - 60 ppm	29.99	15.21	8.93	8.27
Magnesium	10 - 25 ppm	2.45	3.17	2.00	1.87
Potassium	5 - 20 ppm	3.17	3.85	3.54	2.55
Sulfur	30 - 90 ppm	10.55	33.30	17.87	14.22
Bicarbonate	<120 ppm	97.45	21.60	30.24	44.29
Boron	<0.67 ppm	<0.05	<0.50	<0.05	<0.05
Chloride	<177 ppm	11.57	38.30	19.06	18.72



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GREENS	Acceptable Range For Standard Soil Sample	1,2,8,12,17 (avg) 9/23/15	3,6,10,13,18 (avg) 4/23/16	4,7,9,11,15(avg) 10/11/16	5,13,14,16avg) 4/19/17
Organic Matter (Humus)	2 - 3%	4.19	4.49	3.65	3.59
Sulfur	50 - 100 ppm	41.80	26.80	85.20	16.25
Mehlich III - Phosphorus	350 lbs/acre	1,247.60	1,430.80	1,218.60	1,320.00
Calcium	68%	71.36	71.26	73.88	75.31
Magnesium	15%	10.98	9.84	12.02	10.54
Potassium	5%	4.16	3.69	4.18	4.03
Sodium	<2%	1.42	1.86	1.69	1.72
Boron	1 - 1.5 ppm	0.70	0.59	0.59	0.58
Iron	120 ppm	362.20	374.00	361.00	415.25
Manganese	50 ppm	10.40	8.00	9.60	11.50

GREENS	Acceptable Range For Saturated Paste Sample	1,2,8,12,17 (avg) 9/23/15	3,6,10,13,18 (avg) 4/23/16	4,7,9,11,15 (avg) 10/11/16	CPG, 5, 13,14,16 (avg) 4/19/17
Nitrate - Bentgrass/Poa	1-3 ppm	12.74	<0.5	1.24	<0.92
Phosphorus	2 - 7 ppm	1.76	2.86	2.59	2.89
Potassium	25-40 ppm	47.21	26.34	21.33	16.28
Calcium	50- 75 ppm	55.98	24.86	13.60	14.41
Magnesium	15-30 ppm	11.26	5.22	3.32	3.41
Sodium	0 - 30 ppm	17.36	8.86	8.37	5.40
Soluble Salts	<1,000 ppm	391.60	165.60	123.00	106.60
Bicarbonate	<60 ppm	23.43	34.17	43.44	59.06
Chloride	<200 ppm	27.40	6.20	14.00	9.60
SAR	<4%	0.56	0.42	0.53	0.33

GREENS	Acceptable Range For Tissue Sample	1,2,8,12,17(avg) 9/23/15	3,6,10,13,18 (avg) 4/23/16	4,7,9,11,15 (avg) 10/11/16	CPG,5,13,14,16 (avg) 4/19/17
Nitrogen	3.0%-6.5%	5.69	4.21	5.75	4.32
Phosphorus	0.2%-0.55%	0.74	0.69	0.70	0.53
Potassium	0.86%-2.55%	3.07	2.98	2.86	2.81
Calcium	0.21%-0.50%	0.48	0.59	0.33	0.49
Magnesium	0.09%-0.22%	0.14	0.21	0.17	0.15
Sulfur	0.23%-0.39%	0.49	0.52	0.49	0.46
Boron	5-24 ppm	7.26	11.10	4.12	12.08
Iron	99-500 ppm	219.40	472.80	144.20	202.00
Manganese	30-160 ppm	81.00	260.20	79.72	141.80
Copper	9-40 ppm	19.74	16.62	17.54	17.96
Zinc	5-60 ppm	65.42	64.92	64.80	84.96
Aluminum	63- 408 ppm	303.40	220.20	54.94	65.20
Sodium	506- 2264 ppm	390.20	203.40	436.20	218.80



RECOMMENDATIONS



Thoughts on the course visit

I had a chance to play the front nine the day of my visit. The course was in good shape considering the heavy rains we have had this Winter. The temperatures have still been cool for the most part and if it has been a little warmer, the overcast skies haven't helped much. It is not a surprise that you have seen some disease on the greens. Many courses in NJ have seen something this Spring. I believe a combination of a warmer than usual February and then rainy weeks have lead to that. I think that as the weather stays consistently in the 70's and it is sunny it should disappear. However, I think that if you applied the 2 recommendations I have made that the color will be so good that it would mask the discoloration of the disease.

Overall, the data is good, but the availability (Saturated Pastes data) is very low. With the rains there was a lot of leaching so you should consider doing more than you might normally do to keep things caught up. We have discussed this before I am sure, but no Phosphorus is needed on these greens! There is an excessive amount-most of it found naturally in these soils I bet.

The Clubhouse Putting green is a completely different "animal" than what is on the course. It is deficient in phosphorus, for example, and the rest of the minerals are minimal. When you couple that with a 7.1 pH, not much of the little that is in the soil is plant available. You will see separate recommendations for the CHPG.



Notes from the visit

- Aerification was on March 29th.
- Greens mowing height- 0.125"
- Applied Renovate Plus and 3-3-3 at aerification.
- Started Floratine Spray program (New for 2017)
- Cool season Brown patch on greens.
- Color was good!

Fertilizer and Product Recommendations

Greens (One application)

Magnesium- 3 pounds of product per 1,000 square feet. (Pro-Mag)

Manganese- 2 pounds of product per 1,000 square feet (Manganese Sulfate-"Tech-Magnum")

Clubhouse Putting Green (Monthly applications)

Calcium- 5 pounds of product per 1,000 square feet. (Gypsum)

Potassium- 2 pounds of product per 1,000 square feet. (0-0-50)

Magnesium- 3 pounds of product per 1,000 square feet. (Pro-Mag)

Manganese- 2 pounds of product per 1,000 square feet (Manganese Sulfate-"Tech-Magnum") **ONE TIME NOW AND THEN AGAIN IN OCTOBER!**