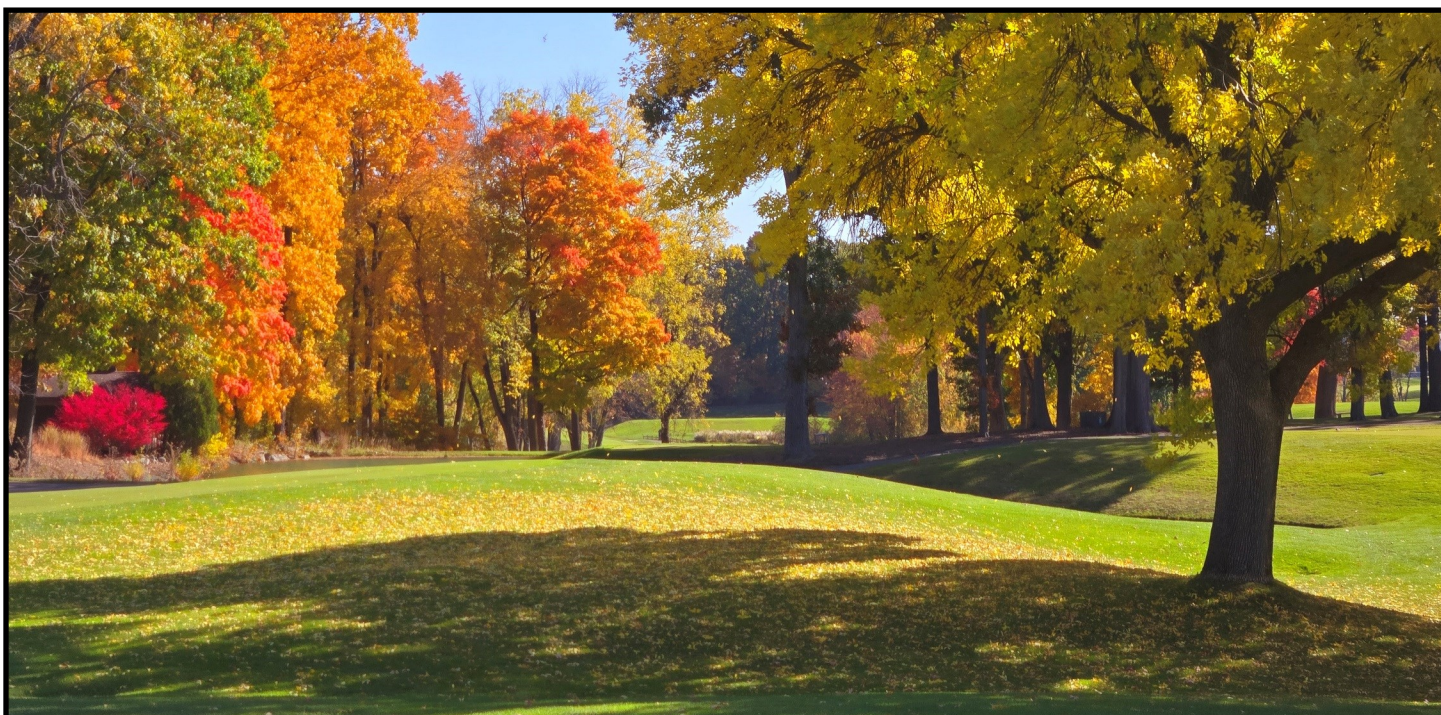


# GROUNDS NEWSLETTER

November 2024

The weather this fall has been fantastic with warm temperatures and sunshine. The golf course is healthy and played well in the months of September and October. The leaves are falling fast but there was a week or two of outstanding color.



As winter approaches we are shifting our focus to promote plant health with increased rates of fertilizer and higher mowing heights on greens, tees, and fairways. Fertilizer and mowing heights will benefit the plant by enhancing the root system and allow for carbohydrates to be stored. The carbohydrates are used for food throughout the winter. Promoting healthy turf this time of year is important for winter survival and also helps the turf handle summer stress next golf season.

Summer turf stress can be caused by numerous factors but two that we watch very closely are the daily low temperature and dew point. Nighttime temperatures near or above 70 degrees and/or dew points above 60 degrees can create challenges. When the dew point is above 60 degrees we typically hear this referred to as a humid day. The higher the number the more humid it is going to feel. Typically, in the summer, high dew points come with high temperatures. The combination of these two factors can lead to problems with golf course conditions and plant health. A list of some of the problems that can be created and how that effects the golf course are below.

- Increased chance for disease.
  - Can cause turf to die creating thin or bare areas on the playing surfaces.
  - Potential for increased cost of plant protectant products.
  - Negative impact on aesthetics of the golf course.
- Additional moisture on the leaf surface and in the soil.
  - It takes longer for the golf course to dry after rain events.
  - Softer and slower playing conditions.
  - Potential for ruts or mud from golf carts.
  - Decreases available oxygen to the root system and creates shorter roots.
- Increased growth rate of the plant.
  - Slower playing conditions.
  - More drastic change in playing conditions from morning to afternoon.
  - Need for increased mowing frequency can cause additional wear to the turf from equipment.
  - Decrease in mower cut quality.
- The leaf blade can get puffy (think about frizzy hair when it is humid).
  - The plant can be damaged by mowing.
  - Can effect the smoothness of ball roll on greens.

The following charts compare the minimum temperature, average dew point, and rain totals for each day in 2024 vs 2023 for the month of June, July, and August. Days with a combination of nighttime temperature near 70 and dew point above 60 degrees are highlighted in red. No need to fully analyze the charts. I will summarize below.

Date	Temp	Dew Point	Rain	Date	Temp	Dew Point	Rain
Jun '24	Min	Avg	Inches	Jun '23	Min	Avg	Inches
1	52	55.3		1	63	58.7	
2	59	60.6	0.25	2	61	54.6	
3	54	58.4		3	63	55	
4	65	63.4		4	57	41.6	
5	61	63.6	0.15	5	56	45.4	
6	60	51.5		6	57	52.1	
7	57	47.9		7	48	41.7	
8	50	52.3		8	50	39.5	
9	55	51.1		9	51	43.8	
10	51	43		10	49	45.9	
11	45	42.3		11	55	54.9	0.15
12	57	53.8	0.11	12	52	46.6	
13	67	63	0.07	13	50	49.9	
14	60	54.9		14	50	51.9	0.08
15	56	52.5		15	51	53.8	0.07
16	63	56.6		16	55	53.4	
17	69	68.9		17	52	51.6	
18	77	69.2		18	52	51.9	
19	76	67.8		19	58	47.1	
20	71	71.1	0.22	20	59	56.8	
21	68	68.3		21	64	57.7	
22	71	67.8		22	62	57	
23	65	65.4	0.76	23	64	58.3	
24	58	58.9		24	67	59.9	
25	65	66.6		25	66	62.5	0.71
26	65	62.1		26	62	63	0.3
27	54	50.6		27	59	57.7	
28	59	58.1		28	54	54.4	
29	68	68.1	0.8	29	63	62.7	
30	56	49.9		30	64	67.4	0.03

We experienced 7 high summer stress days for the turfgrass this year in June. This is rare. The air is typically very dry in June with cooler night temperatures.

Date	Temp	Dew Point	Rain	Date	Temp	Dew Point	Rain
Jul '24	Min	Avg	Inches	Jul '23	Min	Avg	Inches
1	48	47.8		1	67	68.2	0.8
2	54	54	0.07	2	69	68.8	0.83
3	69	63.8		3	66	66.5	
4	65	65		4	63	64	0.5
5	62	63.1		5	68	67.9	
6	63	60.8		6	68	65.7	0.6
7	57	60.2		7	58	56	
8	66	66.7		8	61	59.5	
9	67	67.3		9	55	57.3	
10	66	65.1	1.7	10	57	56.9	
11	60	62.5	0.35	11	63	59.3	
12	64	65.1		12	57	58.5	
13	64	65.8		13	60	59.2	2.5
14	69	68.5		14	60	64.2	
15	66	68.7	1.6	15	68	67.5	0.5
16	67	70.7	0.35	16	63	59.4	
17	62	59.4		17	63	55.52	0.33
18	56	52.96		18	57	55.13	
19	53	54.33		19	57	58.08	
20	56	57.96		20	63	62.68	0.2
21	59	60.83		21	63	60.17	
22	63	61.83		22	62	58.33	
23	58	62.48		23	61	61.45	0.4
24	65	63.11	0.3	24	59	61.75	
25	58	54.58		25	63	63.46	
26	57	57.83		26	66	69.4	
27	58	57.83		27	68	67.94	0.35
28	60	64.5		28	71	70.08	
29	70	70.81		29	69	65.92	
30	69	69	0.8	30	63	54.33	
31	66	68.73		31	56	55.38	

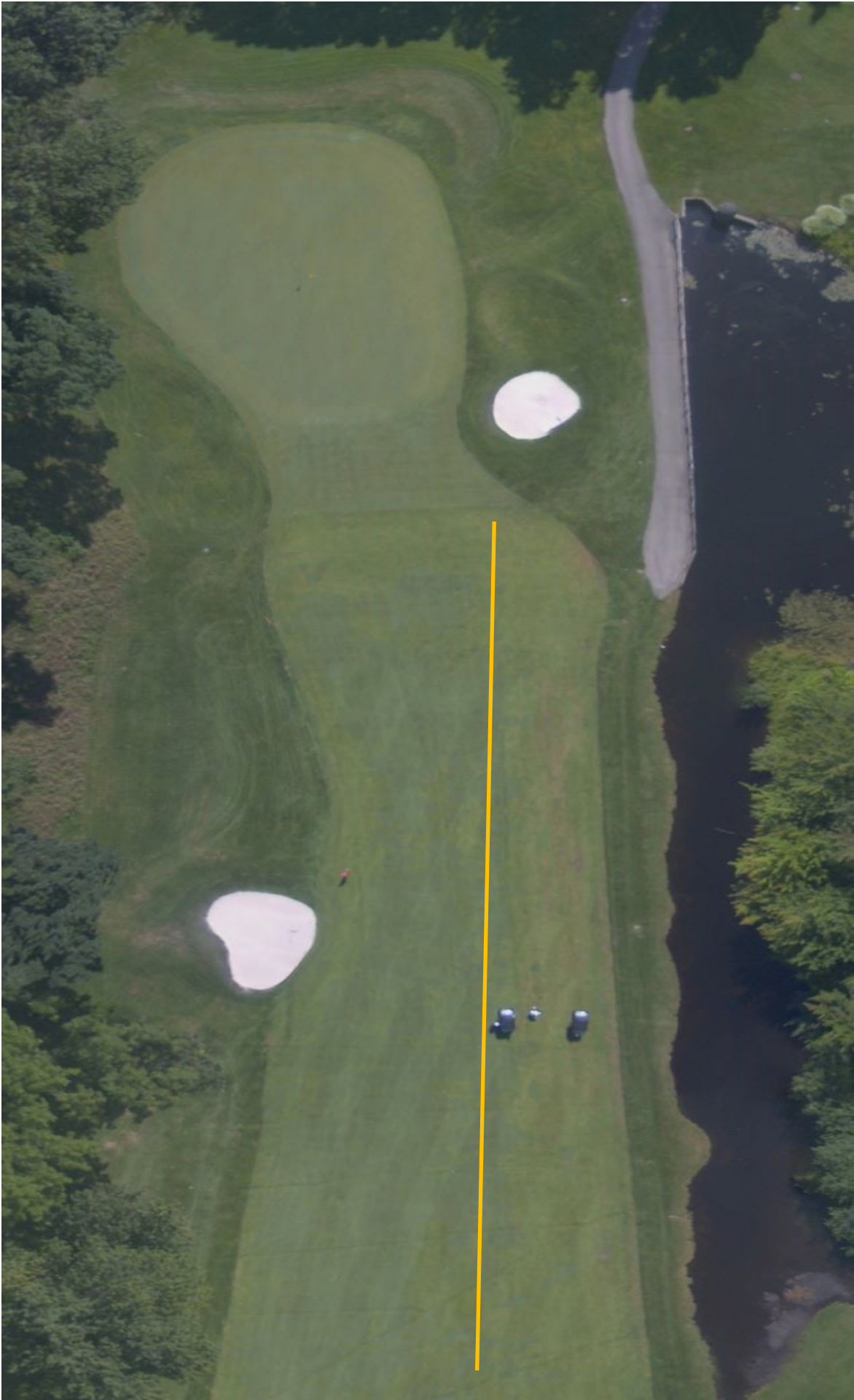
Nighttime temperatures were fairly normal in July but dew points remained high for most of the month.

Date	Temp	Dew Point	Rain	Date	Temp	Dew Point	Rain
Aug '24	Min	Avg	Inches	Aug '23	Min	Avg	Inches
1	69	71.22		1	57	57.46	
2	70	69.9		2	65	61.25	
3	68	65.17		3	63	64.08	
4	64	61.63		4	64	61.67	
5	69	68.68		5	63	61.46	
6	59	59.83	1.2	6	61	60.47	0.45
7	57	57		7	62	60.52	
8	57	58		8	61	61.39	
9	62	54.38		9	62	63.58	
10	56	52.5		10	64	62.33	
11	58	52.92		11	57	62.24	
12	56	58.88		12	66	63.79	0.03
13	59	58.92		13	61	59.75	
14	59	59.08		14	62	62.69	
15	61	61.67		15	62	59.86	1.4
16	66	66.12	0.54	16	52	56.71	
17	67	69		17	61	58.62	0.38
18	66	64.51		18	57	51.08	
19	57	53.29		19	51	54.25	
20	50	48.96		20	63	67.13	
21	49	48.46		21	63	63.54	
22	51	51.42		22	62	57.3	
23	53	54.71		23	66	69.1	
24	59	59.54		24	72	75.8	0.4
25	66	66.13		25	68	69.6	
26	71	67.79		26	62	62.8	
27	74	70.16	0.1	27	52	52.5	
28	71	69.69	0.15	28	51	53.1	
29	66	66.04		29	56	57.9	0.15
30	69	67.9	0.21	30	55	49.9	
31	64	60.8		31	47	48.5	

The middle of August in 2024 did allow for some reprieve. August of 2023 was very mild by historical standards. In total, there were 22 “high summer stress days” in 2024 vs only 10 in 2023.

We survived the summer months fairly well. Greens, tees, and most fairways remained healthy and in good playing condition. The 5th fairway, on the East, took some damage from disease but mostly healed through the month of September. Isolated traffic is an agronomic challenge on this hole. Traffic significantly weakens the turf allowing disease to take hold. When we go through stressful periods of weather it compounds the issue. The photo below is a good example of how traffic gets isolated to the right side of the fairway as carts travel to the cart path. The turf is weak on the right side of the fairway and healthier on the left.





Sometimes nature wins, but our year round cultural programs are very important to combat these stressful periods of weather. Cultural programs consist of things like aerification, verticutting, sand topdressing and mowing heights. We have a few more cultural programs to complete before the ground freezes or snow flies.



On November 14th we will deep tine aerify the East/West greens. Deep tining alleviates compaction, improves rooting by allowing for more oxygen, and improves drainage. We perform this process just before winter to help the greens drain water during freeze thaw cycles. In theory, this will help reduce ice. Deep tining will not prevent ice 100% but it is just one more tool to help.



The next process will be applying a heavy sand topdressing on greens. The sand helps smooth the green surface, helps with drainage, and provides some protection from harsh winter conditions. We do not have an exact date for this application but it needs to occur before the ground freezes or snow. The greens should also be firm enough to allow for the heavy equipment needed to apply the sand.



The final process is covering greens on the East/West with a specialized tarp. We historically cover #1, 3, 6, 10, 11, and 16 green. These greens are either the weakest greens on property or have a history of winter kill. The cover helps the green from drying out when exposed to cold and wind.



We have yet to determined a closing date for the golf courses this year. The date will depend on weather and our opportunity to complete sand topdressing and covering greens. Unfortunately, the application of sand and covers make the greens unplayable but these two processes are very important for the long-term success of the golf course.

We will keep an eye on the weather and post updates when the time comes. For now, I hope you can get out and enjoy the remainder of this season.

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