

Water Requirement
Sanya Olympic Garden - Sanya, China

No.			Average												Total	Ave.	
			January	February	March	April	May	June	July	August	September	October	November	December			
1	Temp. - Min.	c	15	16	18	22	25	26	26	25	24	22	19	16			
2	Temp. - Max.	c	23	23	26	29	32	32	32	31	31	29	27	24			
3	Humidity	%	76	83	75	80	79	82	80	83	80	79	71	71			
4	Wind	km/hr	1.6094	14.8	13.0	13.0	13.0	13.0	11.1	11.1	13.0	11.1	14.8	14.8			
5	Wind	M/Hr															
6	Sunshine	%															
7	Sunshine		700.0	700.0	700.0	600.0	600.0	600.0	600.0	650.0	700.0	700.0	700.0	700.0			
8	WS ET ¹	mm	6.32	5.92	6.74	6.29	6.83	6.60	6.69	6.94	7.31	7.27	7.27	6.73			
9	Crop Coefficient (Warm Season)		0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80			
10	Adjusted ET (Crop)		5.06	4.74	5.39	5.03	5.46	5.28	5.35	5.55	5.85	5.82	5.82	5.38			
11	Scheduling Coefficient (Add)	20%	1.26	1.18	1.35	1.26	1.37	1.32	1.34	1.39	1.46	1.45	1.45	1.35			
12	ET/Day (Applied)	mm.	25.4	6.32	5.92	6.74	6.29	6.83	6.60	6.69	6.94	7.31	7.27	7.27	6.73		
13	ET/Day (Applied)	in.	0.03937	0.25	0.23	0.27	0.25	0.27	0.26	0.26	0.27	0.29	0.29	0.29	0.26		
14	ET/Month (Applied)	in.	0.03937	7.7	6.5	8.2	7.4	8.3	7.8	8.2	8.5	8.6	8.9	8.6	8.2	97.0	8.1
15	ET/Month (Applied)	mm		195.9	165.8	208.9	188.7	211.7	198.0	207.4	215.1	219.3	225.4	218.1	208.6	2463.0	205.2
16	Rainfall - Month	mm		8	13	18	28	66	135	119	229	175	114	25	5	934.7	77.9
17	Excess Rainfall ²	mm		0.0	0.0	0.0	0.0	0.0	0.0	0.0	-13.46	0.0	0.0	0.0	0.0	-13.5	-1.1
18	Available Rainfall	mm		8	13	18	28	66	135	119	215	175	114	25	5	921.3	76.8
19	ET Less Rainfall (Mo.)	mm		188	153	191	161	146	63	88	0	44	111	193	204	1541.7	128.5
20	ET Less Rainfall (Mo.)	In.		7.4	6.0	7.5	6.3	5.7	2.5	3.5	0.0	1.7	4.4	7.6	8.0	60.7	5.1
21		m ²		31	28	31	30	31	30	31	31	30	31	30	31	365	
22	Irrigated Area	m ³	410,668	77,329	62,857	78,503	66,019	59,830	26,028	36,143	0	18,086	45,613	79,136	83,591	633,135	52,761
23		m ³														0	0
24		m ³														0	0
25	Total Irrigation Per Month Minus Rain	m ³	410,668	77,329	62,857	78,503	66,019	59,830	26,028	36,143	0	18,086	45,613	79,136	83,591	633,135	52,761
26	Total Irrigation Per Month Minus Rain	ltr.	1000	77,328,786	62,856,845	78,503,297	66,018,989	59,830,222	26,028,138	36,142,891	0	18,085,819	45,612,896	79,135,725	83,591,473	633,135,082	52,761,257
27	Total Irrigation Per Day Minus Rain	m ³		2,494	2,245	2,532	2,201	1,930	868	1,166	0	603	1,471	2,638	2,696		0
28	Total Irrigation Per Day Minus Rain	ltr.	1000	2,494,477	2,027,640	2,532,364	2,129,645	1,930,007	839,617	1,165,900	0	583,414	1,471,384	2,552,765	2,696,499		0
29																	
30	Total Irrigation Per Month No Rain	m ³	1,000	80,458	68,072	85,805	77,493	86,951	81,312	85,168	88,351	90,059	92,552	89,567	85,678	1,011,467	84,289
31	Total Irrigation Per Month No Rain	ltr.	1000	80,458,076	68,072,329	85,804,974	77,493,053	86,950,737	81,312,266	85,168,438	88,351,115	90,059,494	92,552,249	89,566,693	85,677,667	1,011,467,092	84,288,924
32	Total Irrigation Per Day No Rain	m ³		2,595	2,431	2,768	2,583	2,805	2,710	2,747	2,850	3,002	2,986	2,986	2,764		2,769
33	Total Irrigation Per Day No Rain	ltr.	1000	2,595,422	2,431,155	2,767,902	2,583,102	2,804,862	2,710,409	2,747,369	2,850,036	3,001,983	2,985,556	2,985,556	2,763,796		2,768,929
34	Total Irrigation Per Day Peak	m ³										3,002					
35	Total Irrigation Per Day Peak	ltr.	1000									3,001,983					

GOLF	10000 m3	410668.01
Sanya, China	2.471 Acres	
Nicklaus Design	100.00 cm/m	

¹ - Data per Rain Bird Smart Weather Software, 1.05 Crop Coef. X 20% Scheduling Coefficient

² - Above that required for Daily Irrigation

Latitude: 19°1'N, Longitude: 108°37'E, Elevation: 26.0 ft

SUMMARY	Value	NOTES
Peak Daily ET Applied (mm)	7.31	Pump of 409 m3/Hr. = 10 hour window @ 85% efficiency, 511 m3/Hr. = 8 hours
Peak Water Requirement - Daily (m3)	3,002	Recommended Min. Daily Water Requirement
Peak Water Requirement (Less Rainfall) - Monthly (m3)	0	Recommended Min. Monthly Water Requirement
Peak Water Requirement (Less Rainfall) - Annual (m3)	633,135	
Peak Water Requirement (No Rainfall) - Annual (m3)	1,011,467	