

3rd evaluation and results

No Mowing Trial Pitt Town

Introduction

At the conclusion of the second trial stage all plots at the Pitt Town site were let go and not mown or maintained for a 20 week period between 15th January 2007 and 7th June 2007. The purpose of this trial is to observe which varieties would easily get out of control, become invasive and unmanageable if they were not maintained for a period of time. This trial will provide real data on which varieties perform the best under these conditions requiring the least amount of maintenance, attention and could be left for a long period while still having an adequate quality lawn.

General Information and Results

On the 7th June 2007 all plots had been left untouched for 20 weeks and 3 days, this period of time was sufficient enough for the purpose of the trial, so that each individual plot could reach a growing height suitable to measure and average the differences between each variety tested. A and B plots for each variety had 10 random readings taken from each plot to give an overall average for each variety. All plots received moderate, sensible to sufficient irrigation over this period.

Following is Table 1 which shows the measurements collected on the A plots at the Pitt Town site. All measurements are in mm

Readings	Kikuyu 1A	Kikuyu11A	Kikuyu 15A	Palmetto 2A	Palmetto12A	Palmetto 16A	Sir W 3A	Sir W 7A	Sir W 17A
1	298	411	499	138	117	88	158	214	156
2	296	312	498	98	118	110	195	173	188
3	296	305	512	118	129	145	163	184	210
4	320	338	522	112	119	140	255	173	200
5	325	402	433	142	136	110	165	175	145
6	310	456	445	164	88	109	185	168	168
7	288	489	460	162	110	113	228	183	178
8	298	414	553	138	108	99	179	175	205
9	268	398	449	132	120	108	140	148	209
10	345	407	481	148	148	125	198	153	134
Average	304.4	393.2	485.2	135.2	119.3	114.7	186.6	174.6	179.3

Readings	Smaster 4A	Smaster 8A	Smaster 18A	Greenlees 5A	Greenlees 9A	Greenlees 13A	Empire 6A	Empire 10A	Empire 14A
1	173	160	150	270	263	295	108	106	91
2	188	123	222	284	215	281	108	119	91
3	158	142	255	216	220	225	111	127	92
4	178	144	241	160	204	167	124	139	100
5	188	156	220	162	243	138	134	138	100
6	185	168	230	181	135	182	117	129	102
7	167	154	220	195	143	189	119	102	109
8	183	178	146	238	152	258	123	113	111
9	194	147	148	247	200	222	119	110	119
10	184	153	190	238	243	220	93	183	130
Average	179.8	152.5	202.2	219.1	201.8	217.7	115.6	126.6	104.5

Following is Table 2 which shows the measurements collected on the B plots at the Pitt Town site. All measurements are in mm.

Readings	Kikuyu 1B	Kikuyu 11B	Kikuyu 15B	Palmetto 2B	Palmetto 12B	Palmetto 16B	Sir W 3B	Sir W 7B	Sir W 17B
1	278	655	609	88	119	80	129	166	88
2	286	648	633	88	168	88	153	137	162
3	278	465	630	78	144	105	173	157	148
4	305	636	648	74	128	130	141	173	150
5	260	564	655	86	90	110	127	195	158
6	280	558	644	85	80	110	116	160	150
7	265	493	520	70	110	109	125	132	125
8	268	412	535	72	108	109	155	148	112
9	276	541	580	60	120	98	155	155	122
10	258	500	600	55	148	110	190	139	159
Average	275.4	547.2	605.4	75.6	121.5	104.9	146.4	156.2	137.4

Readings	Smaster 4B	Smaster 8B	Smaster 18B	Greenlees 5B	Greenlees 9B	Greenlees 13B	Empire 6B	Empire 10B	Empire 14B
1	123	128	190	270	210	248	114	109	118
2	185	159	150	284	208	229	97	127	137
3	186	144	110	216	127	147	124	137	112
4	257	128	113	160	116	186	114	133	123
5	204	169	130	162	149	188	110	116	136
6	170	186	112	181	169	220	118	110	99
7	159	188	146	195	174	227	121	117	88
8	170	202	140	238	148	223	117	125	99
9	177	112	138	247	149	199	128	137	101
10	94	159	107	238	208	198	131	139	111
Average	139.6	157.5	133.6	219.1	165.8	206.5	117.4	125	112.4

Table 3 includes the averages of the 3 individual A and B plots for each variety. It also includes an average of the A and B plots combined. All measurements are in mm.

Varieties	Fert A Plots	Unfert B Plots	Average of A+B combined
Kikuyu	394.3	476	435.15
Palmetto	123.1	100.6	111.85
Sir Walter	180.2	146.6	163.4
Smaster	178.2	143.6	160.9
Greenlees	212.9	197.1	205
Empire	115.6	118.3	116.95

During observations and recording of measurements on this trial we found that the Kikuyu in the Fertilised A plots was actually on average a lower height than the non fertilized B plots. This is because the fertilized plots grew a lot quicker and became softer causing the leaf to fall over and not be upright, whereas the leaf on the non fertilised B plots were not soft but were upright so they stayed at a taller height. It was also noted that Empire had a slightly lower growth rate in the fertilized A plots compared with the non fertilized B plots. This result is most likely due to the slow release fertiliser being applied over 6 months prior to the trial beginning. As a result the effect of the fertilizer had most likely worn off quicker on the Empire and had no significant difference between the non fertilised plots and the fertilized plots. Other varieties such as the Greenlees, Shademaster, Sir Walter and Palmetto showed that the average growth was taller when fertilised with a slow release fertilizer prior to performing no mowing.

As the results show Kikuyu by a long way was the fastest growing variety with the tallest growth, followed by Greenlees Couch and then Sir Walter and Shademaster. Empire and Palmetto were significantly the best 2 varieties in this situation where no mowing was performed.

When observing the plots we did find that the Empire had the most even growth with higher uniformity followed closely by Palmetto. Compared to the other varieties in the trial Kikuyu was the most rampant and out of control by a significant amount.

Conclusion

In conclusion it is clear that Palmetto and Empire are the 2 best turf varieties in this trial for low maintenance and having significantly less growth when left for periods of time without any mowing or maintenance.

The results show us that if you have periods of no mowing for short or longer periods either with a home lawn or lawn for commercial use it would be more sensible to use either Empire or Palmetto turf varieties. For home lawns Empire or Palmetto would be the obvious choice. If you are going away on holidays or simply you can not mow your lawn for whatever reason Empire and Palmetto will grow to the shortest heights with the best quality, making them both more manageable when you return to mowing again. The results show that generally it is better not to fertilise your lawn prior to going away when no mowing can be performed due to the higher growth rates.

For commercial use of turf for roadsides, factories, large amenity areas, large banks and hard to mow areas the best choice would be Empire Turf. Empire keeps the most even, uniform growth and will only grow to an average height of 10-12cm when not mown for periods of time. Empire is great for commercial applications where erosion or damage may occur as it has very good erosion control capabilities. (Please see plant and turf erosion control paper www.ozbreed.com.au/Erosion_Research.html). Empire also has very good drought survivability and is ideal for these low maintenance commercial applications where maintenance is very low.

If other varieties were to be used for residential or commercial applications in this way namely Kikuyu, Greenlees, Sir Walter and Shademaster they would grow too tall, require too much maintenance and become somewhat invasive and a lot harder to manage. Empire and Palmetto can be left a lot longer without any maintenance or mowing without becoming too tall, untidy and invasive into other unwanted areas.