

## Brisbane Parks Trials

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### Introduction

A cooperative trial (Brisbane City Council and Weedbug Services Pty Ltd) was commissioned to compare Brisbane City Council's vegetation control methods and the alternative methods offered by Weedbug Services Pty Ltd.

The results were to be evaluated on the basis of overall cost, turf quality (conversion to good turf grasses) and other factors relevant to the administration of park management.

This case study is made up of extracts from the report issued by:

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(A full copy of the report is available from Weedbug Services Pty Ltd upon request).

### Scope of trials

The trial and evaluation was undertaken at four (4) trial sites, situated in four (4) parks in the Ashgrove area (a suburb of Brisbane). The duration of the trial was set at three (3) years, commencing in November 1996 and concluding in June 1999.

Mr Rollo Waite acted as the consultant agronomist with regard to experiment design, trial plot establishment and measurement of botanical changes over the duration of the trial and compilation of the report. Botanical composition was assessed prior to and during the experiment using the percentage rank technique.

A species list was compiled and divided into desirable species (turf grasses) and undesirable species (weeds and unwanted grasses), namely:

Desirable Species		Undesirable Species	
Blue Couch	<i>Digitaria didactyla</i>	Bahia grass	<i>Paspalum notatum</i>
Green Couch	<i>Cybodon dactylon</i>	Crowsfoot	<i>Eleusine indica</i>
Broad Leaf Mat Grass	<i>Axonopus compressus</i>	Elastic Grass	<i>Eragrostis tenuifolia</i>
		Giant Paspallum	<i>Paspalum urvillei</i>
		Guinea Grass	<i>Panicum maximum</i>
		Kikuyu Grass	<i>Pennisetum clandestinum</i>
		Paspallum or Dallas Grass	<i>Paspalum dilatatum</i>
		Prairie Grass	<i>Bromus catharticus</i>
		Rhodes Grass	<i>Chloris gayana</i>
		Summer Grass	<i>Digitaria ciliare</i>
		Winter Grass	<i>Poa annua</i>

### Treatments and Layout of Trial Sites

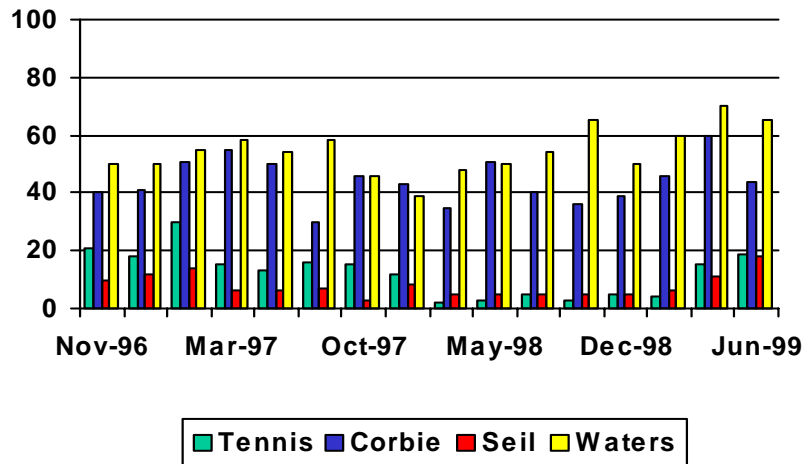
The four (4) parks chosen represented a reasonable diversity of botanical composition with 20 plots marked at each of the parks. This made a total of 80 trial plots, each approximately 15 metres in length by 4 metres wide. Four (4) plots at each park were set up as controls with the remainder receiving various combinations of Weedbug applications and mows.

Sampling was undertaken systematically on set grid positions.

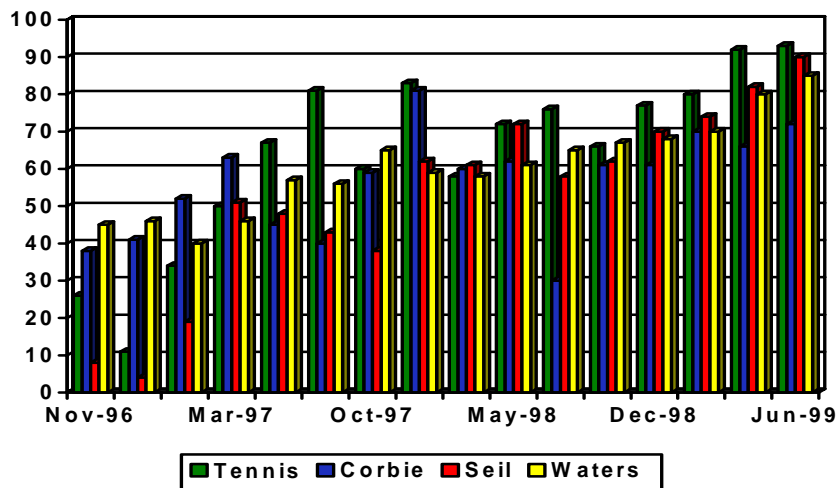
**Summary**

1. The application of Weedbug significantly increased the percentage turf grass over the four (4) Ashgrove parks, from a mean (all plots) of 31% (11/96) to 80% for Weedbug treatments. The percentage turf grass in the control sites has remained at about the same level (35%).

*Percentage Turfgrass (desirable species) at control sites*



*Percentage Turfgrass (desirable species) on sites receiving two (2) Weedbug treatments per annum*



2. There was a strong trend towards a much higher percentage turf grass in the sites that received two (2) Weedbug treatments per year.
3. There was no evidence to suggest that the cutting regime (scheduled and intervention) had affected the percentage of turf grass.

4. The results from the number of intervention cuts (1998-99) show the superiority of treatments continuing to receive two (2) Weedbug applications per year - requiring 50% to 66% less cuts than for the control sites. This is due to the improvement in the status of turf grass in these plots.
5. The data from recordings of height of species supports this result. On the basis of this fairly minimal standard of intervention, the scheduled 16 cuts per annum regime would seem grossly inadequate for untreated parks.

## **Conclusion**

1. All of the evidence from this trial suggests that the continuing application of two (2) Weedbug treatments per year plus control of broadleaf would result in better park maintenance with the scheduled cutting (or some other system).
2. The diminishing quality of parks in SE Qld is due to the presence of undesirable species and the deficiency of the naturalised turf grass to compete.
3. The introduction of Weedbug technology (as an ongoing process and including broadleaf control) offers a solution. The introduction of superior turf grasses, particularly in new parks, is strongly recommended.