

# LSA Turf Establishment Trial

## Finding the best soil and irrigation techniques for establishing new turf







Lawn Solutions Australia (LSA) commissioned soil scientist Dr Mick Battam to conduct a trial to determine the best method of establishing new turf. **The trial was performed near Richmond NSW, with the turf installed in October 2021.**

### Trial Layout

The trial used a latin square experimental layout to examine the impact of soil and syringe watering on the rate of turf establishment of Sir Grange (zoysia), Sir Walter DNA Certified (soft leaf buffalo) and TifTuf Hybrid Bermuda (couch). The trial consisted of 72 plots which included 3 replicates for each treatment.

### What is the fastest way to establish turf?

Turf was established consistently quicker when installed on a base of 150mm or more with some organics incorporated into an 80/20 soil mix. Sir Grange was significantly quicker to establish with organics incorporated, whilst TifTuf was slightly quicker and Sir Walter DNA Certified wasn't affected. Organics refers to recycled soil, compost or cow and other manures. These products are readily available at all soil yards. This particular soil type was 80% sandy loam (80/20) and 20% organics.

	<b>SOIL TYPE 1</b> 150mm or more depth of soil 80:20 loam/organics	<b>SOIL TYPE 2</b> 120mm or less depth of soil 80:20 sand/soil
SIR GRANGE	 31 DAYS TO ESTABLISH	 80 DAYS TO ESTABLISH
SIR WALTER DNA	 33 DAYS TO ESTABLISH	 34 DAYS TO ESTABLISH
TIFTUF	 29 DAYS TO ESTABLISH	 43 DAYS TO ESTABLISH

All photos taken 35 days after turf was installed.

### What was the impact of syringe watering?

Due to its shallow rootzone, new turf is very susceptible to heat injury. Syringe watering involves applying 3-minute watering events at about 1pm and 4pm on hot days to cool the turf so it is less likely to get scorched.

The LSA trial found syringe watering resulted in the turf roots growing more rapidly in the first 4 days after installing the turf. It is recommended on hot days for new turf.



### What was the impact of not mowing?

The cuts on the leaves take several hours to seal after mowing. Until this occurs, the turf is susceptible to drying out. The LSA trial found that not mowing Sir Grange had minimal impact on the rate of turf establishment. However, this may have only occurred because the trial took place in a wet summer. To be safe, it is recommended that turf (especially Sir Grange) is not mown prior to hot weather. If this cannot be avoided, then water the turf after mowing.

### Other benefits of using Soil Type 1

Soil at least 150mm deep also provides a means for minimising the impact of drought. This occurs because soil that is at least 150mm deep typically holds 3 to 5 times the amount of water held in sands.



### So what soil should I use?

If you are installing Sir Grange, it is best to incorporate organics into your sandy profile and ensure you are syringe watering as outlined. 150mm depth of soil should be the minimum. If you have an existing Sir Grange lawn on straight sand, you can incorporate organics as a top dressing. If you are installing TifTuf or Sir Walter DNA Certified, standard 80/20 sandy loam is suitable but for best results incorporating some organics is recommended. Again, a minimum of 150mm soil depth is recommended. Syringe watering is always recommended on hot days.

### Where can suitable soil be purchased?

Your local Lawn Solutions member will be able to direct you to a local soil supplier that has turf underlay mixes which will be perfect for under your new lawn. To get in touch, please give us a call on 1300 883 711 or email [info@lawnsolutionsaustralia.com.au](mailto:info@lawnsolutionsaustralia.com.au)