



**Performance of
bermudagrass
cultivars under
different shade,
irrigation, and
wear treatments**

**STRI Final Report
AU106983 - May 2020**



TIFTUF



*Excluding Western Australia and Northern Territory

TRIAL SUMMARY

A trial was completed at STRI's Redlands research facility on several cultivars of bermudagrass (couchgrasses).

A trial was completed at STRI's Redlands research facility on several cultivars of bermudagrass (couchgrasses). The objectives of this trial were as follows:

1. To determine the shade tolerance of TifTuf compared to Australian industry standard cultivars.
2. To determine the effect of irrigation on TifTuf compared to Australian industry standard cultivars.
3. To determine the wear tolerance of TifTuf compared to Australian industry standard cultivars.



GRASS CULTIVARS INCLUDED IN THIS TRIAL

CULTIVAR	GRASS SPECIES
TifTuf	Cynodon dactylon x Cynodon transvaalensis
TifSport	
Santa Ana	
Legend	Cynodon dactylon
Wintergreen	
Grand Prix	
OzTuff	
Agridark	

TIMELINE

- May 2019
 - Shade stress applied
- Mid May 2019
 - Irrigation stress initiated
- May - early July
 - Wear test #1
- Late July - August
 - Wear test #2
- October - November
 - Wear test #3

TRIAL METHOD

Site: STRI's Redlands research facility , Cleveland Brisbane.

Soil: Natural podzolic Redland soil (Krasnozem red loam to clay loam)

Timing: 7 months from 5 May 2019

Experimental design: The trial was laid out in a randomized split block with 4 replicates of each of the 8 cultivars.

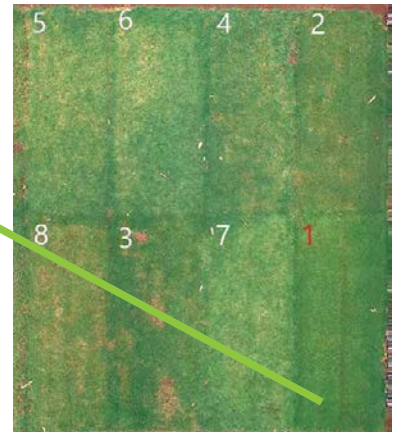
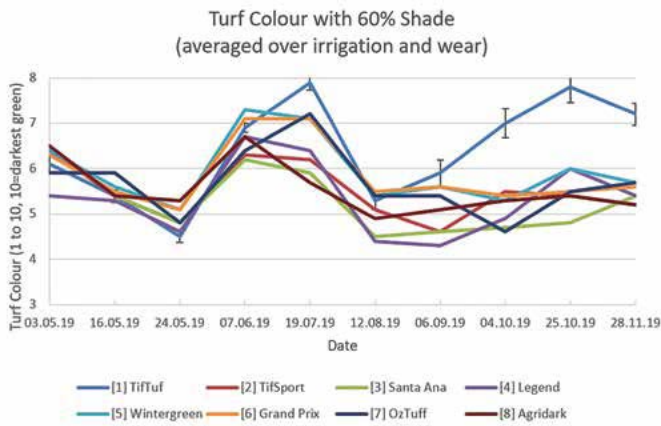
STRESS FACTORS INCLUDED IN THIS TRIAL

SHADE	IRRIGATION	WEAR
60% Shade	Deficit Irrigation	No Wear
Full Sun	Standard Irrigation	With Wear

SHADE

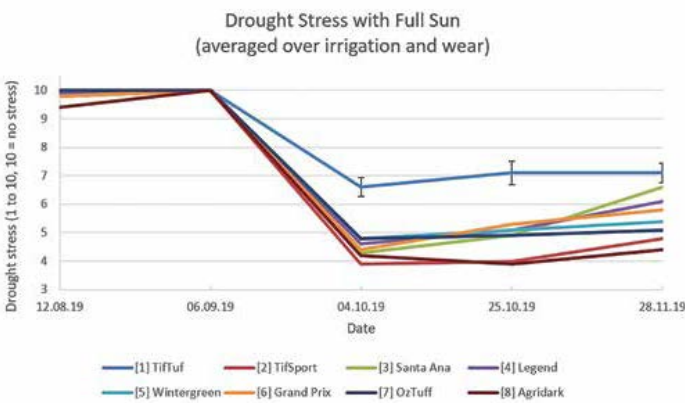
TURF COLOUR

Turf colour of different cultivars under 60% shade averaged over the effects of irrigation and wear (the error bars on TifTuf line represent the LSD for that assessment date).



DROUGHT STRESS WITH FULL SUN

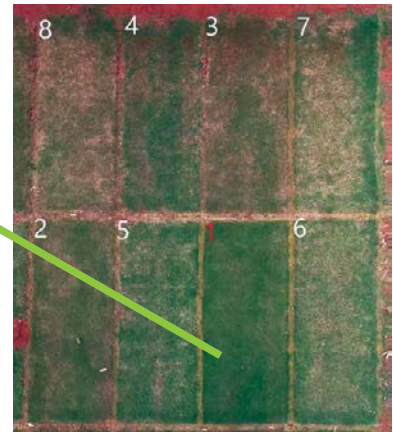
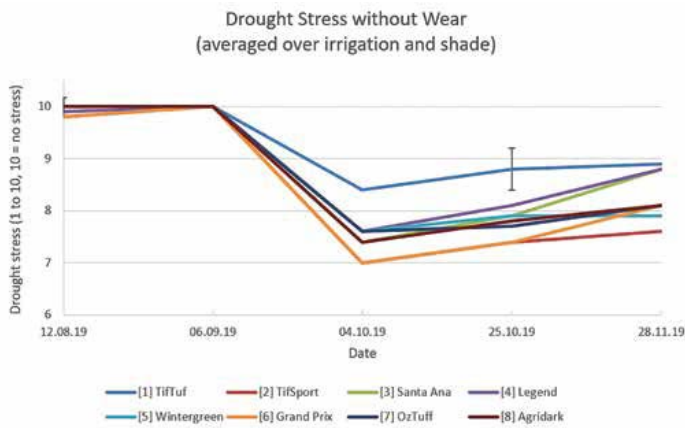
Drought stress of different cultivars under full sun condition averaged over the effects of irrigation and wear (the error bars on TifTuf line represent the LSD for that assessment date).



WEAR

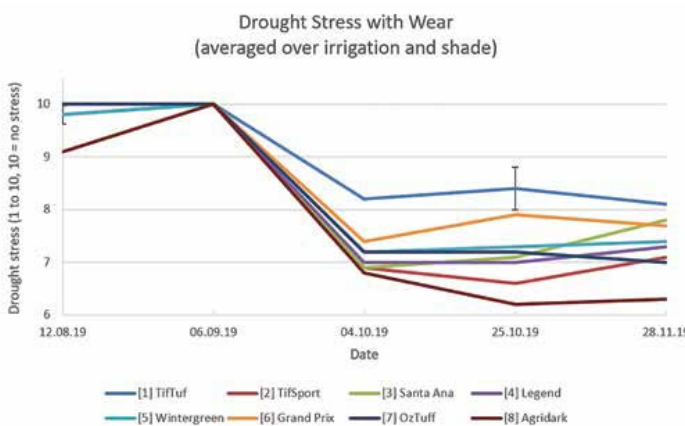
DROUGHT STRESS WITHOUT WEAR

Drought stress of different cultivars without wear averaged over the effects of shade and irrigation (the error bars on TifTuf line represent the LSD for that assessment date).



DROUGHT STRESS WITH WEAR

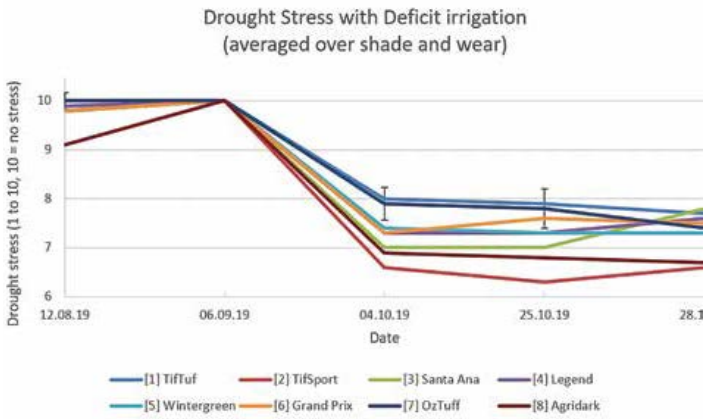
Drought stress of different cultivars with wear averaged over the effects of shade and irrigation (the error bars on TifTuf line represent the LSD for that assessment date).



IRRIGATION

DROUGHT STRESS WITH DEFICIT IRRIGATION

Drought stress of different cultivars under deficit irrigation averaged over the effects of shade and wear (the error bars on TifTuf line represent the LSD for that assessment date).



DROUGHT STRESS WITH STANDARD IRRIGATION

Drought stress of different cultivars under standard irrigation averaged over the effects of shade and wear (the error bars on TifTuf line represent the LSD for that assessment date).

