



The Queensland Cricket trial was established in May 2017 at Allan Border Field to compare new turfgrass varieties under ground management conditions. Pictured middle is the TifTuf wicket, with OZ TUFF on the left and Legend on the right

On the right wicket

Matt Roche from Australian Sports Turf Consultants writes on a two-year trial of new couchgrass varieties by Queensland Cricket to assess their suitability for community clubs.

In May 2017, Queensland Cricket grounds manager Jarrod Bird embarked upon a case study to trial and compare new and improved turfgrass varieties for use on cricket wickets.

The trial, supported by Queensland Cricket, was initiated to help provide independent advice on new turf varieties to community cricket clubs who are re-establishing or building a new cricket wicket or block. Gone are the days of recommending 'common couch' because what that is exactly these days is debatable.

Following input by Australian Sports Turf Consultants (ASTC), Bird chose five different grasses to trial. These included;

- Three green couch (*Cynodon dactylon*) varieties Grand Prix, OZ TUFF and Legend; and
- Two hybrid couch (*C. dactylon* x *C. transvaalensis*) varieties AgriDark and TifTuf.

The trial was established in May 2017 at Allan Border Field in the Brisbane suburb of Albion. The unreplicated trial was established within Ray Lindwall Oval to compare new turfgrass varieties under ground management conditions, while also providing additional centre wicket (not cricket net) practice for elite cricketers that utilise the facility.



Preparation of the final wicket to be planted with OZ TUFF by Queensland Cricket staff in May 2017

The five cricket wickets were constructed by Rick Shenton of Premier Greenkeeping to Queensland Cricket specifications with the exception of not having a road base layer as sandstone was struck during construction. The wicket soil was from Bruce Raleigh of Totally Cricket Wickets (Ebenezer, Qld) which is usually 73-82 per cent clay composition.



OZ TUFF in the foreground and AgriDark far right on 20 September 2018

Preparation of the Grand Prix cricket wicket within the trail on 3 June 2019

The in-field study undergoes the same turf management conditions which would be seen across other cricket facilities (e.g.; mowing, fertilising, irrigation and rolling). The only difference is to when each pitch is prepared for use. At present the blocks are utilised by elite cricketers every two weeks.

FINDINGS

Observations made to date by Queensland Cricket staff on varietal difference during establishment and preparation include;

- **AgriDark:** Was fast to establish, similar to TifTuf. The hybrid variety has shown to produce less thatch than the other varieties trialled, it has improved winter growth and colour, recovered very well in the footmarks and high wear areas and has had very good lateral growth across the wicket soil.
- **Grand Prix:** Was slow to establish like OZ TUFF and does not have strong lateral growth when compared to AgriDark. Recovery was average.
- **Legend:** Was also slow to establish and in need of supplementary fertiliser (hungry) even when all five varieties were fertilised at the same time. Legend also seemed to have different variants throughout the turf and had the appearance of a patchwork quilt.
- **OZ TUFF:** Was slow to establish and produced a high level of thatch. The pitch was not able to be used for a period of six months due to poor establishment and ability for the wicket to be prepared. However, after six months, once the variety was well rooted it performed very well. The variety was heavily scarified in Autumn 2019 and it will be interesting to watch its progress come the 2019/20 summer.
- **TifTuf:** Was fast to establish like AgriDark. The deck containing the TifTuf variety was the first to be prepared as an important trial for its use within The Gabba (2017 season) following the Adele stadium tour and placement of the stage on the field. The variety performed very well yet was slow to recover particularly within the bowler's footmarks.

Queensland Cricket had to undertake some repair work to the AgriDark wicket block shortly after construction due to the depth of the cricket wicket soil in one area. After repair work in September, turf replacement was also undertaken using washed AgriDark supplied by All Turf Solutions.

Bird was surprised that AgriDark was very fast to establish and was ready for preparation within 2-3 weeks and could have been played



on within four. Plugging of AgriDark turf within the bowlers' footmarks has also shown to be successful with the variety. Commonly, other turfgrass varieties do not root or take sufficiently and are quickly torn out.

In June 2019, ASTC collected multiple soil samples from each of the five turfgrass varieties to undertake comparative organic matter testing of samples 0-20mm beneath the surface. In-house testing was conducted by ASTC consultants using the loss on ignition (LOI) method which is by a blast furnace set at 650 degrees Celsius. LOI is a simple industry-accepted method for estimating the content of organic matter and carbonate minerals in the rootzone.

LOI is converted to estimated organic content using the following formulae provided by Ground Science:

$$\text{Estimated organic content (EOC)} = \text{LOI} - ([\text{estimated}] \text{ clay content} \times 0.09)$$

Test results identified from the representative samples collected, the wicket soil, as determined by an estimated clay content of 82 per cent, contained the following amounts of LOI and estimated organic content (EOC) within the turfgrass wickets at the time of testing.

Turfgrass Variety	LOI (%)	EOC (%)
AgriDark	15	8
Grand Prix	15	8
Legend	12	5
OZ TUFF	11	4
TifTuf	15	7

The study has been well received by community cricket clubs and players who use the world-class facilities located at Allan Border Field. It not only supports player development of elite cricketers throughout Australia, it also helps to inform grass root



The trial was initiated to help provide independent advice on new turf varieties to community cricket clubs who are re-establishing or building a new cricket wicket or block

community cricket clubs to help increase club standards for all players.

For further information about this trial please contact Jarrod Bird. For more details on the new couchgrass varieties used, visit www.TurfFinder.com.

Wear tolerance and recovery within the bowlers' footmarks is critical. Photo is of the TifTuf wicket block in early June 2019

