

2017/18 Summer analysis of perennial grass and summer active grass

35mm in the first week of December 2017, followed by 44mm on the 15th January 2018 allowed the perennial and summer active grasses to germinate and grow well throughout the trial area and surrounding paddocks at East Yuna over summer.

Most notable was the prolific growth of the summer active grass *Paspalidium* on paddocks that had been sown to wheat in 2017. In contrast the paddock used in the trial to investigate the benefits of *Paspalidium* as a year on year grazing option failed to germinate in significant numbers, leaving insignificant feed value and the need to readjust and change the rotation of this paddock to wheat in 2018.

Further work is needed to find if the *Paspalidium* grass requires tillage to activate germination or if other factors such as fertiliser or toxins are responsible. Given that this paddock has been in a wheat- pasture rotation for the 5 years previous, and has shown increased population of *Paspalidium* in the pasture phase, this is a key finding from this project and will require further work to clarify the reason for poor germination.



HARVESTING PASPALIDIUM MARCH 2018

The photo above shows a dominant stand of the native summer active *Paspalidium constrictum*. This paddock was wheat harvested in November 2017, lightly grazed through January and February 2018, before stock were removed to allow even head emergence for harvest of *Paspalidium constrictum*. The biggest challenge was timing of harvest due to seed drop at maturity. Close monitoring showed the most ideal time was approximately 50% seed drop, this allowed the plant to be dry enough for easy harvesting and harvested seed was dry enough to allow easy drying. Harvester was set with sieves almost fully closed, fan at low speed and concave set according to grass density which in most cases was small clearance. Some problems occurred with patches that were not quite ripe enough with green grass stalling draper mat and it must be noted that auger covers in bin should be removed to allow easy clean out.

Drying of seed was done on a large tarp and turned three times a day to stop sweating and mould. Ideally this would have been done in a fertiliser shed and turned with a loader; however we did not have shed space available.



While this project initially set out to compare native grass to introduced perennial species, we have been fortunate to find that while both systems provide good quality feed, low inputs once established as well as providing excellent cover on these typically wind erosion vulnerable soil types, both should be managed in completely different ways.

Much work has been done on best management of perennial grasses, showing shallow seeding, timely grazing and good management can fill feed gaps, provide excellent cover in vulnerable areas while increasing overall carrying capacity. Growing perennial grasses on these soil types in this environment does not allow for these paddocks to be easily cropped again once this system is in place. With this in mind paddock selection is the key.

On the other hand this project has been able to display that with some encouragement of native grass *Paspalidium constrictum* by removing broadleaf competition & timely grazing, this grass can become a dominant summer active species, which is easy to kill with low rates of Glyphosate, is a prolific grower and seed setter that will provide good cover in a pasture phase leading into a wheat crop. More work is required to display if this grass can be successfully introduced where it is not already present and the best way of doing this. *Paspalidium constrictum* is very sensitive to cold conditions and poses little risk to the cropping system.

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