

GRASSING BARE PATCHES DEMONSTRATION

FARM 3 - Allan

June - July 2021

What has happened so far

49 Weeks Later

There has been plenty of continuing rain in June and July. My understanding is this is likely to continue until the beginning of summer due to a negative Indian Ocean dipole. The waters in the eastern Indian Ocean (near Indonesia) are warmer than normal, and the western Indian Ocean (near Africa) are cooler than normal. This causes more moisture-filled air to flow towards Australia that promotes more rainfall to southern parts of Australia including parts of Western Australia, South Australia, Victoria, NSW and the ACT. I believe this has also contributed to a milder winter so far.

While there was no significant growth on the plots over the past two months, I believe that the plots have been able to sustain the vegetation better than the surrounding areas/ paddock. All the plots have good ground cover. The ground cover on Variation 2 plot is high with "mulch" from the green manure crop. The Common Improved plot shows only signs of the jute mesh on the outer perimeter of the plot. Most of the jute mesh has broken down and appears to have composted into the soil.

There are signs of some more grass germination in the Common Improved, Variation 1 and Variation 2 plots which I assume are the native C3 grasses. The crimson clover has also made an appearance in the all three plots. Small amounts of Ryecorn have come up in the Common Improved. I have seen no evidence any cocksfoot germination. Another noticeable aspect between the plots is that moss is only present in both Control A and Control B which I believe is due to the change in Ph created by the original liming.

For all the plots including the controls the ground feels soft / spongy under foot and little effort is required to push wire down 20cm in the moist soil.

With plenty of feed around the farm, the temporary fence seems to continue restricting native animal grazing and I have still not seen any Kangaroos or Wallabies etc on the demonstration plots. Both Control A and Control B are good examples of the benefits of controlling the grazing pressures on an area / paddock from either livestock or native animals.

I have included pictures below to show the original site and the current status of the demonstration plots after 40 weeks as well as the plots after mulching and sowing.

GRASS SEED & SOWING

I chose to use a combination of both exotic and native grass seed. I have used a native grass mix which suit native wildlife combined with Cocksfoot Lazuly.

The native grass seed mix contains

C3 GRASSES

- Native Wheat grass (*Anthosachne scabra*)
- Evans Wallaby grass (*Rytidosperma caespitosa*)
- Oxley Wallaby grass (*Rytidosperma bigeniculata*)
- Burra Weeping grass (*Microlaena Stipoides* var. *Burra*)
- Griffin Weeping grass (*Microlaena Stipoides* var. *Griffin*)
- Common Tussock grass (*Poa labillardieri*)

C4 GRASSES

- Purple Wire Grass (*Aristida personata*)
- Kneed spear grass (*Austrostipa bigeniculata*)
- Scent Top grass (*Capillipedium spicigerum*)
- Silky top Lemon Scented grass (*Cymbopogon obtectus*)
- Silky Bluegrass (*Dichanthium sericeum*)
- Curly Mitchell grass (*Astrebla lappacea*)

BACK GROUND INFORMATION

COMMON IMPROVED PLOT

The Common Improved plot had lime added to the surface and was to be incorporated to a depth of 5cm by hand. My compact soil did not allow for the lime to be incorporated to that depth and was “scratched” into a maximum depth of 2cm. The green manure crop consisting of 90% ryecorn and 10% crimson clover was broadcast across the plot at a rate of 40 grams per m². The Common Improved plot was then covered with jute mesh. The jute mesh as covered with compost obtained from the Queanbeyan Palerang Regional Council waste minimisation centre.

VARIATION 1 PLOT

The Variation 1 plot had lime distributed in the same manner as the Common Improved plot. For this plot mechanical means were used to incorporate the lime. The four tines on a box grader were used to break up the soil to a depth of approximately 10cm. The green manure crop was then broadcast at the same rate of 40 grams per m². The plot was then covered with the compost obtained from the Queanbeyan Palerang Regional Council waste minimisation centre.

VARIATION 2 PLOT

The variation plot 2 was completed a little later (5 days) after the common improved and Variation 1 plots. This variation 2 was without any physical incorporation of the treatments to the plot. The lime was distributed by the same manner as the Common Improved plot and left on the surface and not incorporated. The green manure crop was then broadcast at the same rate of 40 grams per m². The plot was then lightly covered with meadow hay. Pelletised poultry manure (Dynamic lifter) was broadcast on this plot at the same rate as the green manure crop of 40 grams per m². The variation plot 2 was then also covered with the compost obtained from the Queanbeyan Palerang Regional Council waste minimisation centre.

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COMMON CONTROL PLOT



Figure 1 Common Control Plot B – No Treatment September 2020



Figure 2 Common Control Plot A July 2021



Figure 3 Common Control Plot A July 2021 – dry matter count



Figure 4 Common Control Plot B July 2021– No Treatment

COMMON IMPROVED PLOT



Figure 5 Common Improved Plot - No treatment September 2020



Figure 6 Common Improved Plot July 2021



Figure 7 Common Improved Plot July 2021- Crimson clover & Ryecorn



Figure 8 Common Improved Plot May 2021 - Grass germination

VARIATION 1 PLOT



Figure 9 Variation 1 Plot - No treatment September 2020



Figure 10 Variation 1 Plot July 2021



Figure 11 Variation 1 Plot July 2021 - Crimson clover

VARIATION 2 PLOT



Figure 12 Variation 2 Plot - No treatment September 2020



Figure 13 Variation 2 Plot July 2021