



## Seed Mix trial 2019 Harvest 1 & 2

### Observations & Results

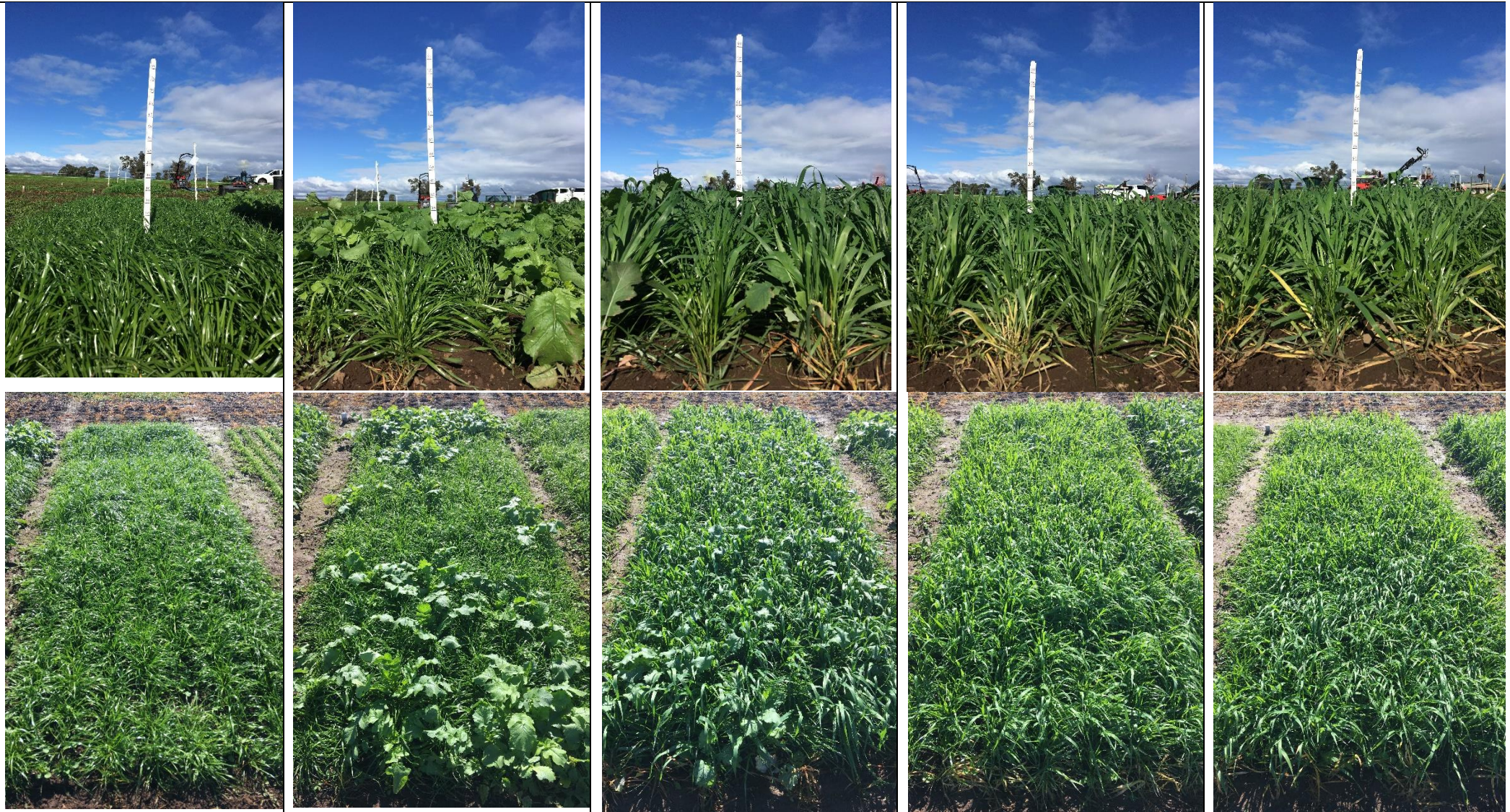
All the mixed forages grew well early in the season (Macro-Figure 1 & 2) and persisted to Harvest 2. Overall, there are significant differences of dry matter (DM) yield between seed mixes at Harvest 1 on 8 July 2019, while these differences vanish at Harvest 2 on 8 August (Figure 3 & 4). At Harvest 1, the mixed seeds from Landmark, PGG Wrightson, and Heritage yield statistically higher than the control group (Figure 3). Although the forage brassica developed tubers, the seed mix from Irwin Hunter yields no difference to control group. Interestingly, the seed mix reaching the highest yield at Harvest 1 has a similar 'recipe' as last year's treatment, including 25 kg/ha of ryegrass and 50 kg/ha of oats as the main composition of the batch, plus Persian clover and forage brassica this year. At Harvest 1, the difference in DM production between the best treatments and the control was around 440 kg DM/ha (Figure 3). Also at Harvest 1, the yield of control in the Seed Mix trial (25 kg/ha, mid-season tetraploid) was similar to that variety in the WASP trial sown at 35 kg/ha. At Harvest 2, the DM yields had no difference between treatments, and the slightly higher mean value of the seed mix from Irwin Hunter was likely due to the tuber from forage brassica (Buster) again (Figure 4).

Cumulative yields from the four seed mix groups are similar and better than the control group (Figure 5). Daily growth rate between Harvest 1 and 2 (60 – 67 kg DM/ha/day) has no significant difference between any mixed seeds and the control group (Figure 6).

A feed quality test is planned to take place close to the end of the season, to reveal if there are any significant difference of feed value between these seed mixes.







Plot 32, Control

Plot 31, Irwin & Hunter

Plot 30, Landmark

Plot 29, PGG Wrightson

Plot 28, Heritage

Macro figure 1. Seed Mix trial 2019 plant growth stage at Harvest 1 at Dardanup Western Australia on 8 July 2019. Plots in images from Replicate 4.





Plot 13, 14, 15, Landmark, Irwin & Hunter, Control (left to right in the front row)

Plot 15, 16, 17, Control, Heritage, PGG Wrightson (left to right in the front row)

*Macro figure 2. Seed Mix trial 2019 plant growth stage at Harvest 2 at Dardanup Western Australia on 8 August 2019. Plots in images from Replicate 1.*

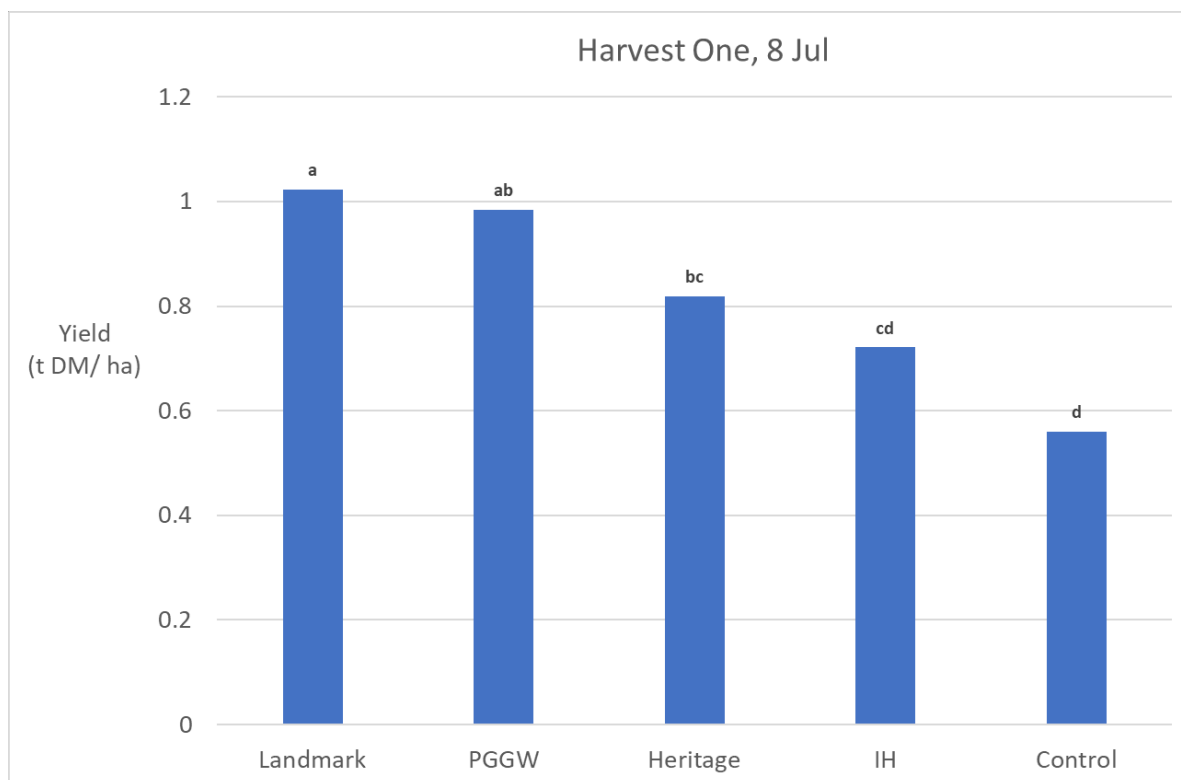


Figure 3. Seed Mix Trial 2019 DM yield from Harvest 1 on 8 Jul at Dardanup, Western Australia.

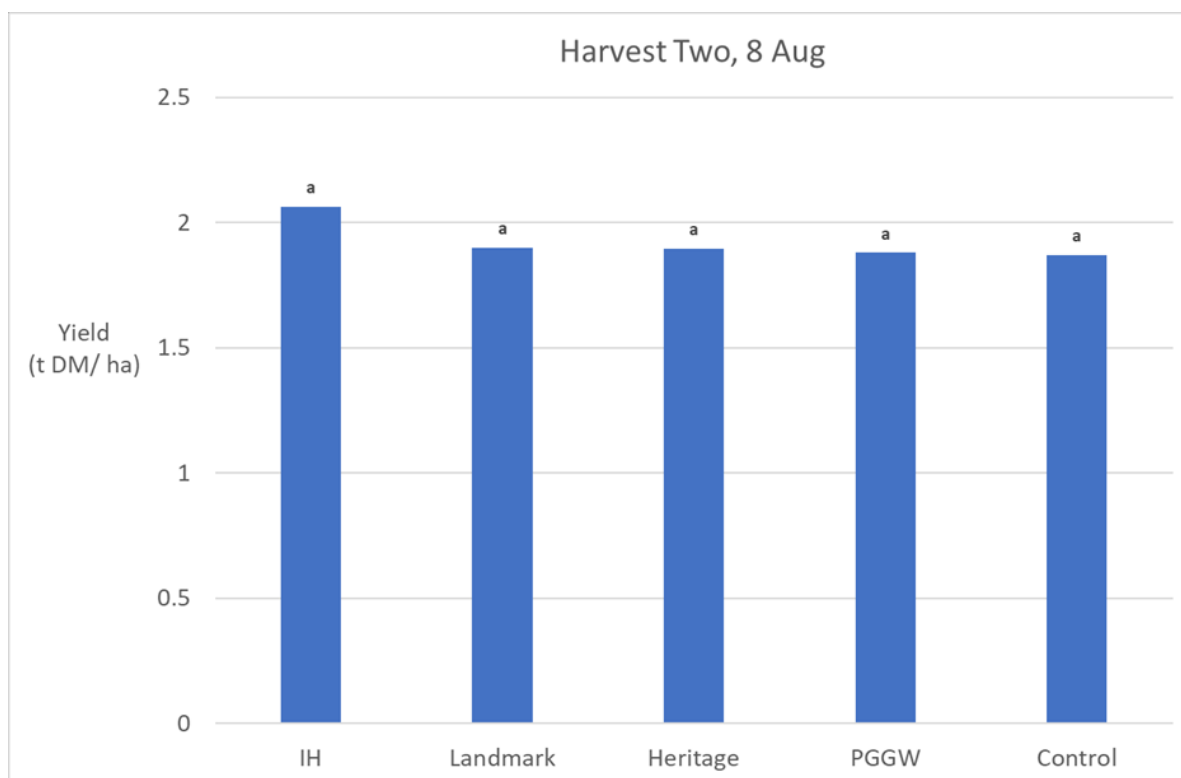


Figure 4. Seed Mix Trial 2019 DM yield from Harvest 2 on 8 Aug at Dardanup, Western Australia.

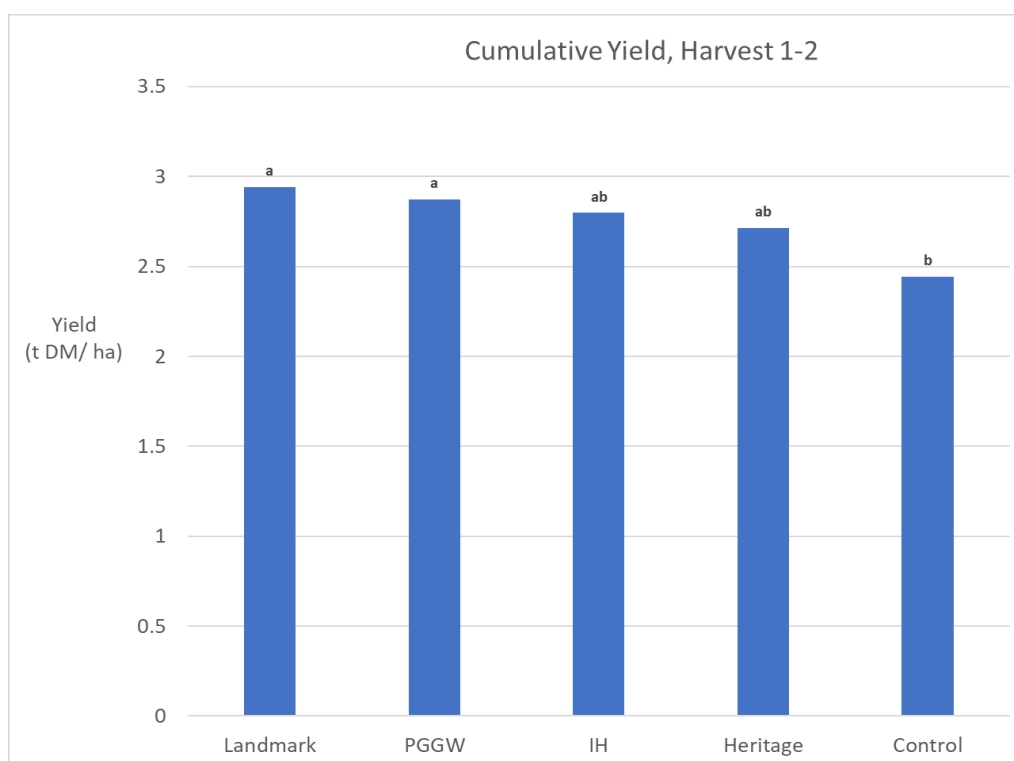


Figure 5. Seed Mix Trial 2019 cumulative DM yield from Harvest 1 and 2 at Dardanup, Western Australia.

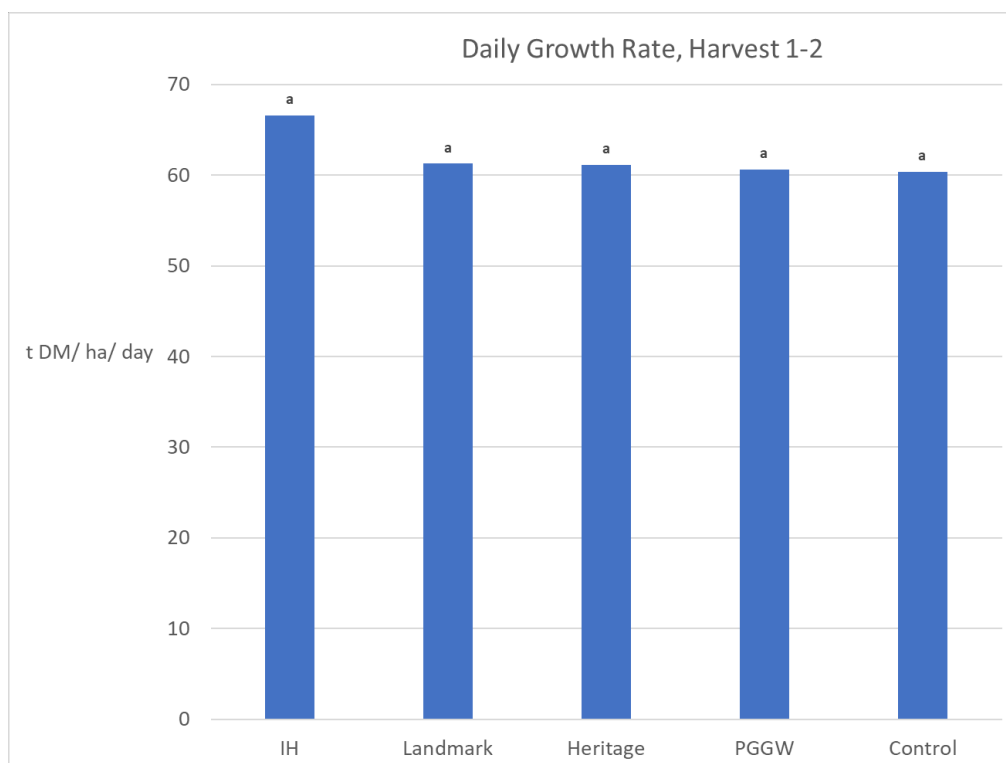


Figure 6. Seed Mix Trial 2019 daily growth rate between Harvest 1 and 2 at Dardanup, Western Australia.



Department of  
Primary Industries and  
Regional Development

## Appendix

The trial management and harvest protocol and times were the same as those used for the WASP (WA Seed Performance) trial. Exceptions of the trial management than the WASP trial are that no broadleaf selective herbicide was applied before Harvest 2 and the trial area was not rolled flat before Harvest 1 to prevent damage to plants (Table 2).

*Table 2. Seed Mix 2019 trial site early season diary abstract.*

Date	Action	Comment
7 May	Spraying	2L glyphosate to control weed, 1L chlorpyrifos to control insect pests
8 May	Seeding	Seeding with fertilizer, 180 kg/ha CropBuilder9
18 June	Fertilizing	100 kg/ha Superphosphate SR, 50kg/ha Muriate of Potash, 130 kg/ha urea
21 June	Site Management	Define plot size to 4 m in length and spray plot edges with 2% glyphosate
5 July	Pest control	Apply snail and slug bait pallet Metarex (50 g/kg Metaldehyde), rate: one hand full per plot (sufficient amount)
8 July	Harvest 1	
9 July	Fertilizing	As above
23 July	Spraying	Spraying weed in blank/buffer area with 2% glyphosate
8 Aug	Harvest 2 Fertilizing	31 days from Harvest 1. Diploid reaching 2.2 leaves, tetraploid reaching 2 leaves, forage crops recovers well from Harvest 1. 100 kg/ha Single Phosphate, 50 kg/ha Muriate of Potash, 130 kg/ha urea
9 Aug	Pest control, Site management	Apply snail and slug bait pallet METAREX (50g/kg Metaldehyde); Measure plot length for yield calculation
12 Aug	Spraying	Broadleaf selective herbicide, 5 L/ha Kamba M & Ravage (340 g/L MCPA, 80 g/L Dicamba)

