

Heritage Seeds Forage Trial

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Purpose:	Demonstration to evaluate new forage options against commonly used graze and grain options.
Location:	WMG Main Trial Site, Peter Negus - Dandaragan
Soil Type:	Sandy loam gravel
Growing Season Rainfall (April- October 2013):	530 mm

BACKGROUND SUMMARY

Local growers interested in new forage options compared to commonly grazed crops.

TRIAL DESIGN

Plot size: 1 hectare blocks

Machinery use: Morris 7180 Concept Bar

Repetitions: 1

Treatment rates and dates: Sown 1.5.13 Gusto 120kg/ha, 11.7.13 - NKS 41 100kg/ha, 24.7.13 - 60 UAN. Serradella sown 1.3.13 Super Potash 4:1 150kg/ha top dressed pre sowing
Sprayed area with 25g/ha Broadstrike, 375ml/ha Select (Cypertherum), 2% Hasten

TRIAL LAYOUT	Sowing Rate	Visual*	Pasture Cut 1	Pasture Cut 2
1. Hindmarsh Barley	75kg/ha	7	57.6	146.9
2. Baudin Barley	75kg/ha	6	58.5	179.9
3. Grange Barley	75kg/ha	5	42.3	176.8
4. Dictator II Forage Barley	75kg/ha	1	41.6	181.0
5. Mammoth Forage Oats	50kg/ha	2	56.2	170.5
6. Graza 80 Forage Oats	50kg/ha	4	67.2	139.3
7. Galileo Forage Oats	50kg/ha	3	68.4	190.4
8. Crackerjack Triticale	75kg/ha	14	48.7	144.2
9. Cobra Wheat	75kg/ha	11	41.1	148.8
10. Tetraploid Ryegrass Mix	27.5kg/ha	12	20.2	130.3
11. Diploid Ryegrass Mix	27.5kg/ha	13	31.2	153.3
12. Leafmore Forage Brassica	5kg/ha	15	42.3	103.8
13. Interval Forage Brassica	5kg/ha	16	42.2	109.6
14. Carbine Clearfield Canola	3kg/ha	17	58.3	185.3
15. Carrolup Oats	100kg/ha	10	71.1	173.8
16. Margarita (no Alosca)	15kg/ha	8	160.5	208.7
17. Margarita (Alosca)	15kg/ha	9	162.1	243.2

* Visual assessment 18/6/13 (1 being best) Pasture cut 1 - 21/6/13 Pasture cut 2 - 15/8/13 Pasture cuts dry matter weight in grams

OBSERVATION/ DISCUSSION/ MEASUREMENTS

The dry June slowed growth considerably and resulted in delayed initial grazing.

Grazing date 1 24/6/13 – 2/7/13 (1200 DSE). Grazing date 2 16/8/13 – 27/8/13 (1660 DSE)

As the trial was not continually grazed and subsequently cut for hay visual assessments were made to conclude the following;

Cereals – The wheat and barley matured at similar time to the Dictator 2 forage barley and Crackerjack forage triticale. The Carrolup Oats matured approximately four weeks earlier over the three forage oat varieties again with grazing pressure there would have been significant biomass yield advantages over common oats. None of the common grain varieties regenerated from hay cutting. With prolonged grazing specifically through spring the true forage oat varieties there would have been delayed head emergence providing more feed to livestock.

Brassicas – Both the Interval and Leafmore forage brassicas matured approximately four weeks later than the Carbine Canola as with the forage cereals this would have been prolonged with grazing through late spring and into summer. Both offered significantly more forage yield over the canola with good regeneration when cut.

Pasture species – All the pasture species performed well specifically the Margarita Serradella with the early sowing at the start of March. The annual rye and clover mixes provided good biomass during the season and responded well to both grazing's and hay cutting. The pasture species offered higher quality feed over the brassicas and cereals and were preferentially grazed by the stock.

In summary the trial demonstrated the attributes of true forage varieties in comparison to grain varieties. The practices adopted through graze and grain techniques have been invaluable to WA farmers and the products used in the trial can be adopted to increase production in mixed areas where livestock play an important part in farming systems through increased stocking rates and maintaining existing cropping rates.

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