

10. MFMG Barley Variety Trials

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Two MacKillop Farm Management Group (MFMG) barley variety trials were sown in 2017 at Frances and Sherwood. These trials are conducted annually to enable growers to evaluate a selected number of varieties under specific local conditions. An additional two trials were conducted at Conmurra and Millicent evaluating high yielding varieties for the high rainfall zone. These results are reported in Chapter 7.

General comments around MFMG trial results in 2017

The importance of reviewing long term data when making varietal choices was evident at both Sherwood and Frances. Some varieties yielded well in both 2016 and 2017 demonstrating their ability to perform well under different seasonal conditions in the environments at the respective sites.

The Frances site was sown on 16 May 2017. All varieties except Westminster were F1 classification. Of the malting/food grade varieties evaluated, Buloke, Compass and Commander were

below the required receivable standards for hectolitre weight of 65 kg/hL whilst Westminster protein level was outside the receivable standard of 9.0 % to 12.0 % for MALT1 and would have been MALT COMP. Rosalind, a new feed barley, has the potential to yield well in high rainfall environments. As in 2016, Rosalind was the highest yielding (6.18 t/ha) but in 2017 yields did not differ significantly between varieties at Frances (Table 1).

Table 1: MFMG 2017 Frances Barley Variety Trial Grain Yield and Quality.

Variety	Yield t/ha	% site mean	1000 grain weight (g/1000 seeds)	Test Weight (kg/hL)	Plump Grain	Screenings (% < 2.2 mm)	Protein (%)
Buloke	4.53	87	43.6	64	72.1	5.4	11.8
Commander	5.31	103	40.1	63	81.7	4.4	11.5
Compass	5.24	101	44.4	63	89.3	2.1	11.0
Rosalind	6.18	119	41.2	64	84.2	3.0	11.6
Spartacus CL	4.72	91	39.4	67	87.8	2.3	12.0
Westminster	5.09	98	42.7	66	82.9	3.5	12.2

Site mean	5.18
P Value (0.05)	0.12
I.s.d	NS
CV (%)	6.6

NS = Not Significant

The Sherwood site was sown on 19 May. Yields ranged from 3.10 to 4.74 t/ha (Table 2) and were reduced overall compared to the 2016 season where more favourable growing conditions prevailed throughout the season. All varieties were feed quality due to the high protein levels. RGT Planet, a new variety evaluated for the first time at Sherwood, showed its potential being the highest yielding variety (4.74 t/ha) outperforming all other varieties.

Rosalind, a new feed barley, that has demonstrated broad adaption, followed closely yielding 4.16 t/ha.

Compass and Spartacus CL have recently received malt accreditation in March 2018; as segregation is an issue for malting barley it is important growers ascertain if the variety chosen is able to be stored and marketed in your area.

Table 2: MFMG 2017 Sherwood Barley Variety Trial Grain Yield and Quality.

Variety	Yield t/ha	% Site Mean	1000 grain weight (g/1000 seeds)	Test Weight (kg/hl)	Plump Grain	Screenings (% < 2.2 mm)	Protein (%)
Buloke	3.92	103	43.6	67	86.7	1.6	12.8
Commander	3.65	96	42.0	66	90.2	2.4	13.6
Compass	3.10	82	46.4	66	93.0	0.9	12.7
Hindmarsh	3.72	98	35.7	67	78.7	5.5	15.2
RGT Planet*	4.74	125	45.2	65	90.2	1.3	12.2
Rosalind	4.16	110	42.7	68	92.3	1.1	13.0
Scope CL	3.79	100	45.8	67	87.5	1.6	12.9
Spartacus CL	3.24	85	36.7	67	81.2	3.0	14.1
Westminster	3.81	100	43.1	67	91.0	1.3	12.5

Site mean	3.79
P Value (0.05)	<.001
I.s.d	0.373
CV (%)	4.7

* Undergoing Malt Accreditation



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