

Early sowing of oats for grazing and recovery for hay on grain production

C.D. McLeod, G.L. Bishop, G.A Boundy and A. Flynn

Department of Agriculture, Victoria

An experiment to test the grazing performance and recovery for hay and/or grain production of some oat varieties of a range of maturity types was conducted in 1983. Oats were sown at Ballarat, Bendigo and Wodonga in late February-March. The season was extremely favourable for comparisons between maturity types with above-average autumn rainfall recorded.

Method

Dry matter production was first measured when the slowest growing variety reached a height of 15 cm. Ouadrat samples were cut by hand 2 cm above ground level from each plot at Bendigo and Ballarat. The full plot was cut to the same height with a rotary mower. At Wodonga, each plot was sampled by cutting to a height of 5 cm with a rotary mower when the average height of the varieties was 40 cm.

At Wodonga, grazing of oats is predominantly by dairy cattle and at Ballarat and Bendigo by sheep: the sampling techniques used at the three sites have been selected to simulate this grazing.

Results and Discussion

Each plot was sampled at approximately 4-6 week intervals and after the final sampling (approximately 1 August) the plots were left to regrow and were later harvested for the measurement of hay and/or grain yield.

Table 1 Green Forage, Hay and Grain Production

Maturity Type/Cultivar	GREEN FORAGE (t DM/ha)			HAY PRODUCTION (t/ha)		GRAIN YIELD (t/ha)	
	BALLARAT	BENDIGO	WODONGA	BALLARAT	WODONGA	BENDIGO	WODONGA
Late							
Algeribee	3.21	2.71	1.96	4.47	8.79	1.20	1.90
Blackbutt	3.19	3.39	1.20	11.33	7.04	2.84	2.47
Carbeen	3.28	3.38	1.72	9.96	13.17	2.70	2.44
Esk	3.96	-	-	11.99	-	-	-
Lampton	2.04	-	-	6.36	-	-	-
Nile	3.75	-	-	11.45	-	-	-
Sala	2.75	2.16	2.60	5.41	9.16	0.70	2.51
Mid-season							
Cooba	3.85	2.84	0.87	5.55	14.20	1.90	1.67
Bulban	-	1.92	2.24	-	7.25	0.28	2.69
Early							
Coolabah	3.01	2.50	2.20	6.89	10.60	1.20	3.45
Swan	2.01	1.49	2.35	3.62	7.71	0.15	2.71
L.S.D. (P=0.05)	0.44	0.33	0.61	1.67	-	0.51	1.17

The later maturing varieties were clearly superior in herbage production and recovery for hay and grain production under the cutting conditions at Ballarat and Bendigo. The early and mid-season varieties Swan and Bulban recovered poorly and produced low hay and grain yields.

With the higher cutting height at Wodonga, the relative performance of the varieties was somewhat different. The varieties originally released as dual purpose e.g. Cooba, Coolabah and Carbeen, were the outstanding hay producers. The early and mid-season varieties Bulban, Coolabah and Swan were the higher producers of grain.

At Wodonga, with a cutting height of 5 cm, the highest herbage yields were recorded from the varieties with erect early growth. The full potential of the varieties with prostrate early growth e.g. Carbeen, Cooba, Blackbutt, may not have been realised.