

Irrigated Oat Population Trial

Durack was sown targeting 160, 200, 240 and 280 plants/m² (72, 89, 107 and 125 kg/ha) assuming 70% establishment. In reality, the populations achieved were 130, 167, 180 and 179 plants/m², or around 50% establishment.

Target Pop'n	Sowing Rate	Actual Population	Yield (t/ha)	Screenings %	Test Wt kg/hl
160 pl/m ²	72 kg/ha	130 pl/m ²	6.29	1.7	57.4
200 pl/m ²	89 kg/ha	167 pl/m ²	6.21	1.6	56.6
240 pl/m ²	102 kg/ha	179 pl/m ²	5.96	1.7	56.2
280 pl/m ²	125 kg/ha	180 pl/m ²	6.44	1.8	56.6
		p	0.527	0.901	0.128
		lsd	NS	NS	NS
		cv%	7.5	19	0.9

The trial results suggest sowing rate had no influence on grain yield of Durack. Unfortunately the target plant populations were not achieved, but it does seem to suggest rather than sowing heavier to increase yield, reduced sowing rates can maintain yield. If the normal establishment rate of 70% was assumed when targeting 130 plants/m², this equates to sowing at 58 kg/ha. However lower sowing rates, while saving seed, can produce a crop that is less competitive with weeds, particularly in the earlier part of the season.