

Various oat seeding rate v yield

Facey Group

Contact: Chloe Turner – agrec@faceygroup.org.au

AIM

To determine yield against various seeding rates for oats.

TRIAL DETAILS

Plot Number	9	AVERAGE
	8	HEAVY
	7	LIGHT
	6	HEAVY
	5	LIGHT
	4	AVERAGE
	3	AVERAGE
	2	LIGHT
	1	HEAVY

Property:	Shaun Wittwer
Plot size & replication:	10m long x various widths – 3 replications
Soil type:	Loam
Crop Variety:	Williams Oats
Sowing Date:	2 nd May 2016
Seeding Rate:	Target rate of 100kg/ha – various actual
Fertiliser (kg/ha):	MAP 50kg, 20 NS, 50L FN, MAP 20kg

METHODOLOGY

This trial came about from a bubble in Shaun's airseeder, which resulted in seeding at three different rates (light, average and heavy) across the paddock. Germination counts were taken on the 22nd June 2016, to determine an approximate seeding rate. Biomass cuts and yield samples will be taken at harvest.

RESULTS & DISCUSSION

As shown in Figure 1, the germination rates were quite distinguishable between each section. The approximate seeding rate was worked using the following formula:

$$\text{Seed rate (kg/ha)} = \frac{[\text{Target plant density (plants/m}^2\text{)} * \text{Average grain weight (mg)}]}{\text{Expected establishment per cent (\%)}}$$

This equalled an approximate seeding rate in the light areas of 67kg/ha, average 99kg/ha and the heavy areas 147kg/ha.

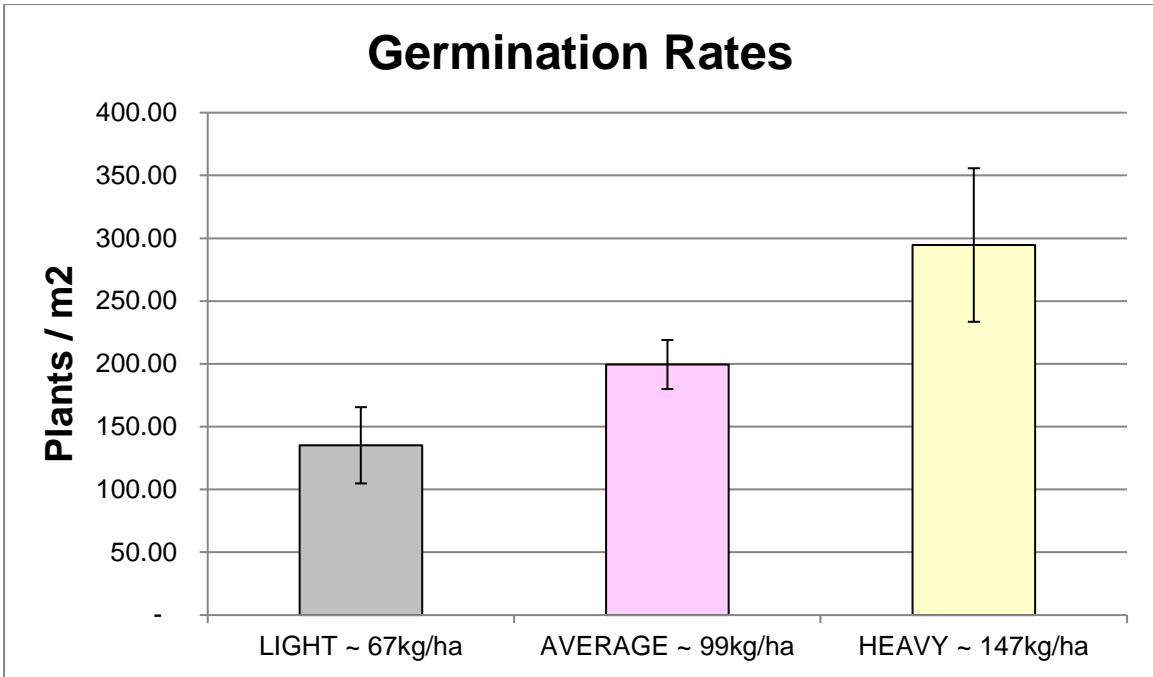


Figure 1: Germination of oats across various seeding rates

Due to the oat crop severely lodging, harvest results were unable to give any determined yield for each seeding rate.

ACKNOWLEDGEMENTS

Shaun Wittwer for providing and managing the trial site.

NOTES
