



Aim: The review of the impact of Oorjit and Prerak (biological products) on plant growth, yield and fibre quality. This was done both with and without fertiliser.

Producer: Coleen Fourie

Location: Groblersdal, LIM

Varieties: PM 3225

Plant Population: Approx 50 000 plants/ha

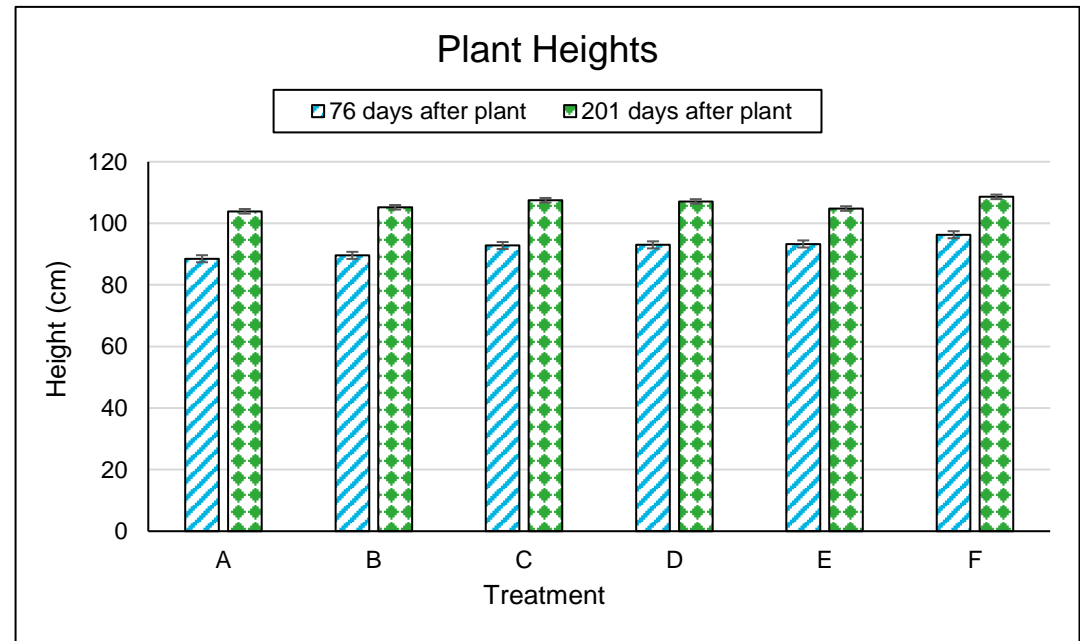
Plot size: 40 m²

Scheme: Dryland

Treatment A	Control
Treatment B	Standard fertiliser recommendation
Treatment C	Prerak (@ 8ml per 1kg seed)
Treatment D	Oorjit (2x sprays @ 625 mL/Ha at 4 and 8 weeks after planting)
Treatment E	Prerak (@ 8ml per 1kg seed) + top dressing
Treatment F	Oorjit (2x sprays @ 625 mL/Ha at 4 and 8 weeks after planting)+ top dressing

Plant height (cm)		
Treatment	76 days after plant	201 days after plant
A	88.5	103.9
B	89.6	105.2
C	92.8	107.5
D	93.0	107.1
E	93.3	104.8
F	96.3	108.6
Average	92.2	106.2

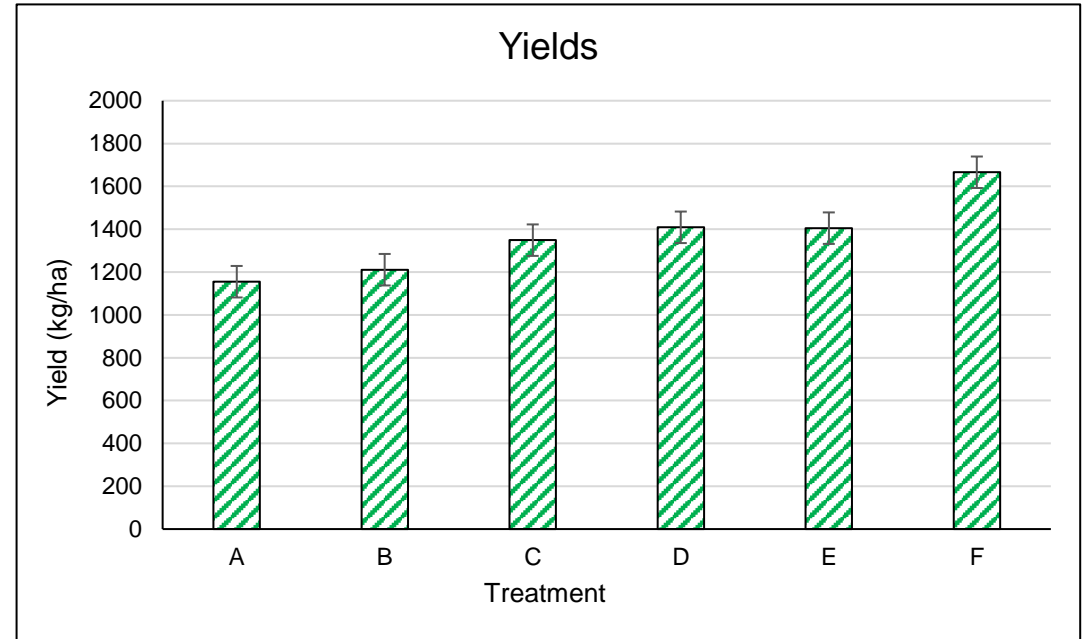
Treatment F achieved significantly taller and more vigorous plants under dryland conditions compared to the untreated control.





Yield and GOT			
Treatment	Yield (kg/ha)	% increase compared to control	GOT (%)
A	1 155	0.0%	42.7%
B	1 211	4.8%	43.1%
C	1 349	16.8%	42.9%
D	1 409	22.0%	42.6%
E	1 405	21.6%	42.2%
F	1 666	44.2%	42.5%
Average	1 366	18.3%	42.6%

Treatment D and E have the second highest yields at 1409 kg/ha and 1405 kg/ha respectively. Treatment F had the highest overall yield of 1666 kg/ha. The average yield was 1366 kg/ha.



Fibre Quality			
Treatment	Staple Length (Inches)	Strength (g/tex)	Micronaire
A	1 1/16"	30.4	4.6
B	1 1/32"	29.9	4.7
C	1"	29.7	4.8
D	1"	29.9	4.6
E	1"	29.6	4.8
F	1 1/32"	29.4	4.8
Average	1"	29.8	4.7

There are no significant differences between any of the fibre quality characteristics. The average length was 1", the average strength was 29.8 g/tex and the average micronaire was 4.7.