



**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:** Jurie Steyn

**Location:** Makhathini, KZN

**Varieties:** PM 3225

**Plant Population:** Approx 60 000 plants/ha

**Plot size:** 36 m<sup>2</sup>

**Scheme:** Semi-Irrigated

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

Plant height (cm)			
Treatment	42 days after plant	83 days after plant	92 days after plant
A	31.3	92.5	90.0
B	33.3	93.3	88.8
C	33.8	88.0	81.8
D	31.0	87.3	82.3
E	31.3	93.3	92.0
F	32.5	91.3	90.0
<b>Average</b>	32.2	90.9	87.5

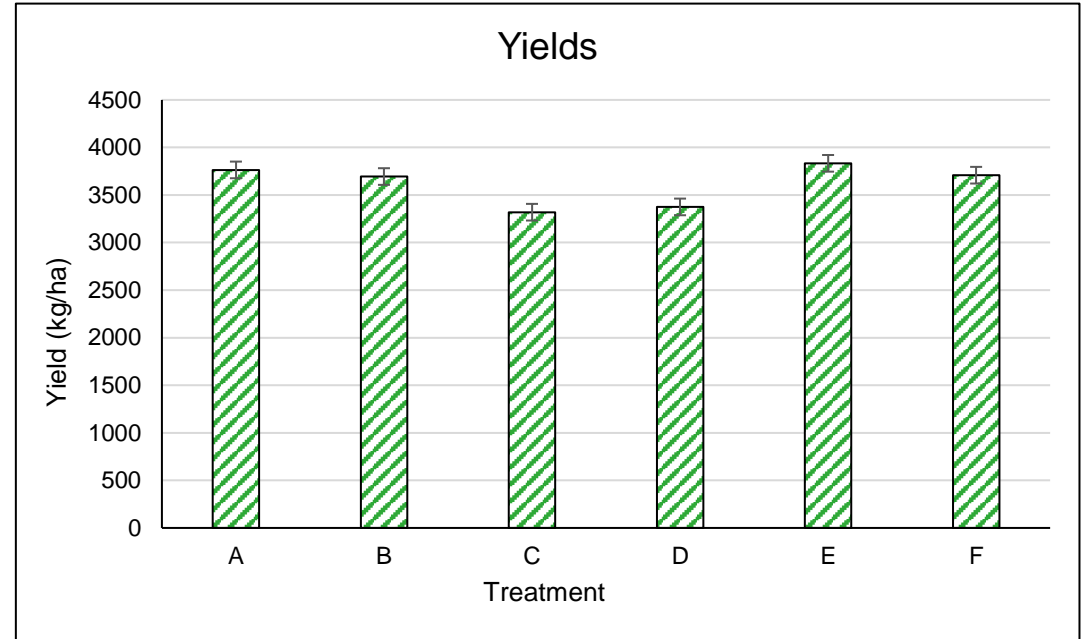
There did not appear to be much difference in plant growth at 42 days after planting. There was vigorous growth between 42 and 83 days after planting, Treatment B and E had the tallest plants.





Yield and GOT			
Treatment	Yield (kg/ha)	% increase compared to control	GOT (%)
A	3 764	0.0%	46.0%
B	3 694	-1.8%	45.7%
C	3 319	-11.8%	45.9%
D	3 375	-10.3%	45.6%
E	3 833	1.8%	45.1%
F	3 708	-1.5%	45.0%
<b>Average</b>	<b>3 616</b>	<b>-3.9%</b>	<b>45.5%</b>

The average yield was 3 616 kg/ha. Treatment E provided the highest yield at 3 833 kg/ha this was only 1.8% above the control. Overall most treatments had lower yields than the control.



Fibre Quality			
Treatment	Staple Length (Inches)	Strength (g/tex)	Micronaire
A	1 1/16"	29.9	4.3
B	1 1/32"	29.8	4.6
C	1 1/16"	28.9	4.5
D	1 1/32"	30.2	4.5
E	1 1/32"	30.3	4.3
F	1 1/32"	29.2	4.7
<b>Average</b>	<b>1 1/32"</b>	<b>29.7</b>	<b>4.5</b>

The fibre quality is as expected for paymaster planted under dryland conditions. There are no significant differences between any of the fibre quality characteristics. The average length was 1 1/32", the average strength was 29.7 g/tex and the average micronaire was 4.5.