



**Aim:** The review of the efficacy of registered insecticide products on the control of Jassids/Leafhoppers.

**Producer:** Jurie Steyn

**Location:** Makhathini, KZN

**Varieties:** PM 3225

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

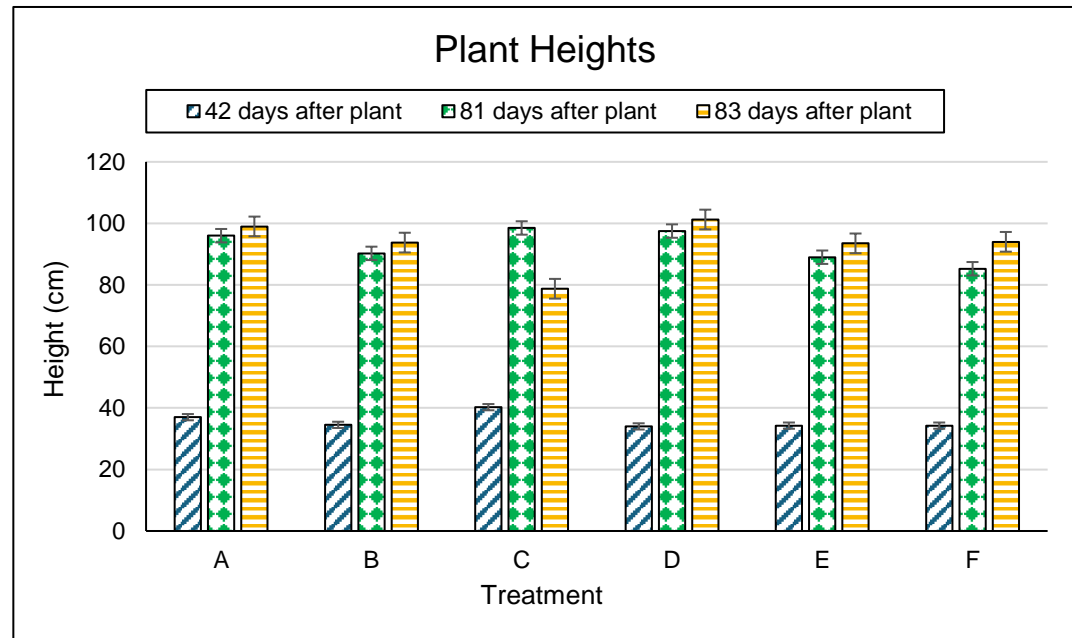
**Plot size:** 36 m<sup>2</sup>

**Scheme:** Semi-Irrigated

	±8 Weeks	±12 Weeks
<b>Treatment A</b>	No seed treatment (control)	No seed treatment (control)
<b>Treatment B</b>	None	None
<b>Treatment C</b>	Acetamiprid (Mulan/Maintain)	Pymetrozine (Chess)
<b>Treatment D</b>	ATP Inhibitor (Pegasus)	Acetamiprid (Mulan/Maintain)
<b>Treatment E</b>	Pymetrozine (Chess)	Cypermethrin
<b>Treatment F</b>	Pymetrozine (Chess)	Pymetrozine (Chess)

Plant height (cm)			
Treatment	42 days after plant	81 days after plant	83 days after plant
A	37.0	96.0	99.0
B	34.5	90.3	93.8
C	40.3	98.5	78.8
D	34.0	97.5	101.3
E	34.3	89.0	93.5
F	34.3	85.3	94.0
<b>Average</b>	<b>35.7</b>	<b>92.8</b>	<b>93.4</b>

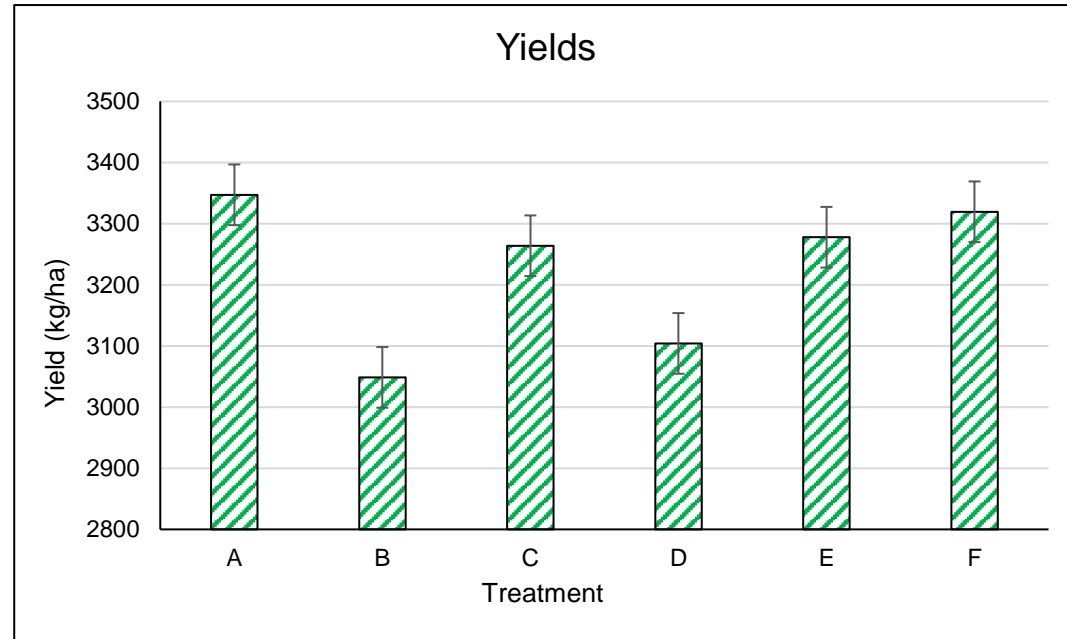
The plant growth after 42 days was an average of 35cm, treatment C was significantly taller at 40cm. At 81 days the average height was 93cm again treatment C was the tallest at 97.5 cm. The trend is the same at 83 days after planting.





Yield and GOT			
Treatment	Yield (kg/ha)	% increase compared to control	GOT (%)
A	3 347	0.0%	47.4%
B	3 049	-8.9%	46.8%
C	3 264	-2.5%	48.1%
D	3 104	-7.3%	46.6%
E	3 278	-2.1%	46.3%
F	3 319	-0.8%	46.3%
<b>Average</b>	<b>3 227</b>	<b>-3.6%</b>	<b>46.9%</b>

The average yield was 3 227 kg/ha, Treatment B and D were 8.9% and 7.3% lower respectively than the control. Interestingly all the treatments had lower yields than the control the least of them being Treatment F.

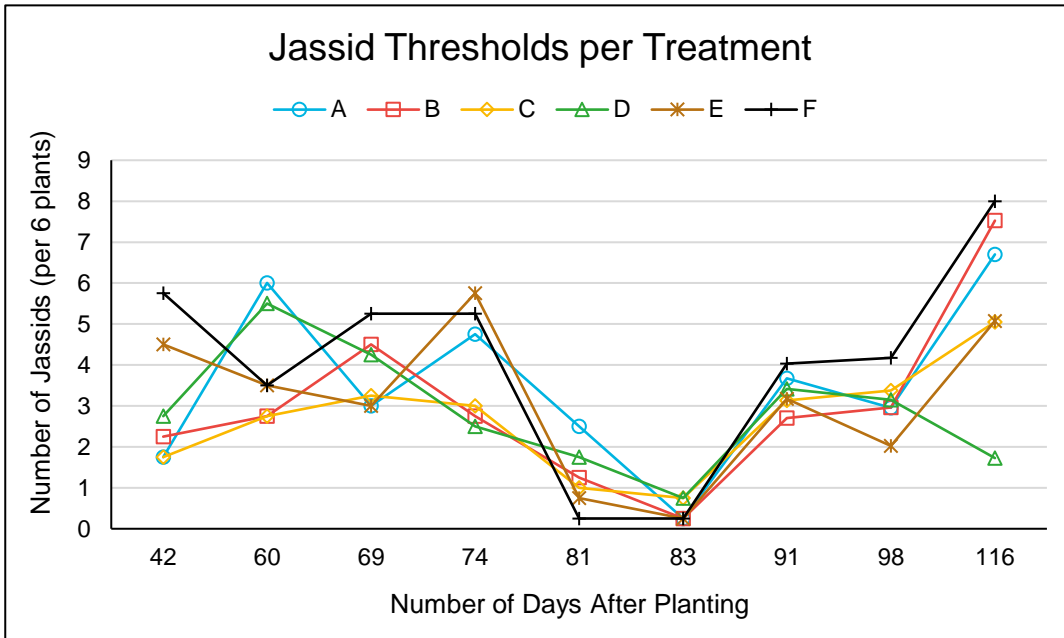


Fibre Quality			
Treatment	Staple Length (Inches)	Strength (g/tex)	Micronaire
A	1 1/32"	29.4	4.1
B	1 1/32"	29.6	4.4
C	1 1/32"	29.0	4.3
D	1 1/16"	29.9	4.5
E	1 1/32"	28.4	4.5
F	1 1/32"	29.5	4.6
<b>Average</b>	<b>1 1/32"</b>	<b>29.3</b>	<b>4.4</b>

The fibre quality characteristics of all the treatments were within range of Paymaster under dryland cotton production conditions. The average length was 1 1/32", the average strength was 29.3 g/tex and the average micronaire was 4.4.



Jassid Thresholds							
Days post planting	Treatment (Counting Average number of Jassids per 6 plants)						Average
	A	B	C	D	E	F	
42	2	2	2	3	5	6	3
60	6	3	3	6	4	4	4
69	3	5	3	4	3	5	4
74	5	3	3	3	6	5	4
81	3	1	1	2	1	0	1
83	0	0	1	1	0	0	0
91	4	3	3	3	3	4	3
98	3	3	3	3	2	4	3
116	7	8	5	2	5	8	6



The Jassid thresholds in the early season did not increase as rapidly as they have in previous seasons making the management of the trials spray program difficult. However it can be seen that there is a significant drop in jassid after treatments in the early season. They do spike quite rapidly towards the end of the season in all treatments except treatment D.