



2019/20

Locality

Makhathini Rental land

Semi-Irrigated

Row-spacing dryland trial

Project Manager

Jurie Steyn

Layout

Randomized block design

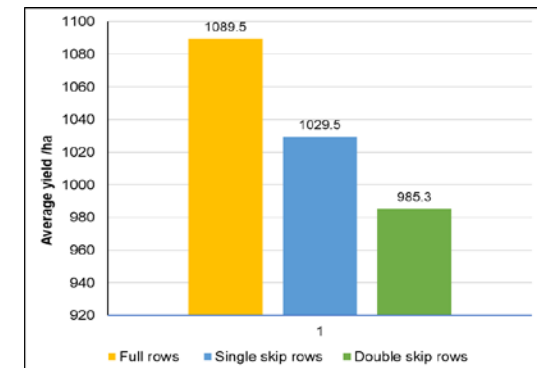
3 Treatments

4 Repetitions

Crop history			
Plant date	08/01/2020		
Previous crop	drybeans	PowerMax	
		03/03/2020	3l/ha
Cultivar	PM3225	19/03/2020	Maxiboost
Plant stand	40000/2680/20000 plants/ha for 3 treatments	Insects	
		21/01/2020	Karate (Grasshoppers)
Rainfall	270mm	10/03/2020	Mospilan & Karate
Fertilizer		18/03/2020	Cormorant & Mecti
		06/04/2020	Karate (Stainers)
Harvest	4 picks 5/05; 16/5; 24/5' 25/06/2020		

Treatments	Full-rows	Single-skip	Double-Skip
Ave yield kg/ha	1 090	1 030	985
Income @ R6/kg	6 537	6 177	5 912
Seed costs (Rands/ha)	720	486	360
Labour planting (R/ha)	1 000	666	500
Total Spraying cost (R/ha)	900	600	450
Chemicals (R/ha)	800	528	400
Labour harvesting (R189 x R2/kg)/ha	2 178	2 058	1 970
Total input costs (R/ha)	5 598	4 338	3 680
Net income (R/ha)	939	1 839	2 232
For 20 ha : Net income (R/ha):	18 780	36 780	44 630

Cultivars	Treatments	GOT (%)	Length (UHML)	Length in inches (pulled by hand)	Strength (gms/tex)	Micronaire
Repeat 1	Full rows	43%	0.98	31/32	31.63	5.2
	Single skip	42%	0.97	31/21	30.22	4.7
	Double skip	43%	1.03	1"1/32	32.75	4.8
2	Full rows	43%	0.98	31/32	31.56	5.3
	Single skip	45%	0.99	1"	32.73	4.9
	Double skip	45%	1.06	1"1/16	32.64	4.5
3	Full rows	46%	0.99	1"	30.78	5.3
	Single skip	42%	0.99	1"	31.27	4.9
	Double skip	44%	1.10	1"3/32	33.68	4.3
4	Full rows	45%	0.94	15/16	31.02	5.2
	Single skip	46%	1.02	1"1/32	30.87	4.6
	Double skip	45%	1.06	1"1/16	32.12	4.8
Summary (Averages)	Full rows	42.18%	0.97	31/32	31.25	5.2
	Single skip	41.04%	0.99	1"	31.27	4.8
	Double skip	39.32%	1.06	1"1/16	32.79	4.6



* No statistical differences between yields

Extension summary - J. Steyn

- * Double skip row gave lower yield
- * Approximate net profit is higher on Double skiprows
- * Saving in seed costs, labour costs, especially picking costs
- *Fibre qualities : Micronaire improves with single skip and double skip rows

Strength is good, above 30gms/tex
 Length: Fibers are short, but improve as more moisture becomes available in single and double skiprows.