

Bt white maize demonstration site – Olifantsvlei, Gauteng Province

Mr. M. Musi

2005 / 2006 SEASON

I first planted Bt maize in 2005



This is what my Bt white maize plot looked like two weeks after planting.



Two months after planting the maize started to flower.



Neighbouring farmers came to see my Bt maize



We held an Information Day



Even visitors from Kenya and Malawi came to see my maize



Harvest data from 8 x 10m² sample plots.

	Non-Bt Maize			Bt Maize		
Sample No.	Wt (kg)	No. of cobs	No. cobs damaged	Wt (kg)	No. of cobs	No. cobs damaged
1	15.5	67	1	19.1	81	0
2	13.0	53	1	17.3	73	1
3	17.0	74	2	16.6	73	0
4	17.3	72	1	22.3	101	0
5	13.8	75	3	20.9	99	0
6	12.6	59	0	24.6	114	0
7	10.0	53	1	16.7	70	0
8	15.6	63	2	16.6	74	0
Total	114.8	516	11	154.1	685	1
Mean	14.4			19.3		

My estimated profit was as follows:

Item	Non-Bt Maize	Bt Maize
Cost of seed per hectare	R345.00	R693.00
Estimated yield per hectare (whole cobs)	14 400 kg	19 300 kg
Estimated yield per hectare (grain)	7 200 kg	9 650 kg
Gross profit	R9 735.00	R12 817.00
Advantage of Bt over non-Bt maize	R3 082 per hectare	

The above estimates are based on the following:

- An average grain price of R1 400 per ton.
- A ratio of 50 : 50 regarding weight of grain : weight of the bare cob.

From the increased yield I donated some grain, which was milled, ----



--- to several HIV/AIDS hospices in Soweto.



I also bought a second-hand mill with some of the profits from the sale of grain.



2006 – 2007 SEASON



In November 2006 I again prepared my soil -----

--- and planted Bt white maize.



**This what my maize looked like
in January 2007**



By February my maize plants were flowering but we had little rain



**Because of drought the
yield assessment was
done early**



When we weighed the mass of cobs from each subplot





Non Bt white maize

Bt white maize

The Bt maize yield was higher than that from the conventional maize

Harvest data from 8 x 10m² subplots.

	Non-Bt Maize			Bt Maize		
Subplot No.	Wt (kg)	No. of cobs	No. cobs damaged	Wt (kg)	No. of cobs	No. cobs damaged
1	7.0	51	0	10.6	51	0
2	6.3	52	1	7.8	40	0
3	6.0	53	1	6.9	36	0
4	9.1	60	1	9.5	39	0
5	7.6	49	0	8.9	43	0
6	10.2	57	1	10.5	46	0
7	6.3	47	0	7.0	36	1
8	8.8	50	1	8.8	40	0
Total	61.3	419	5	70.0	331	1
Mean	7.7	52.4		8.8	41.4	

The estimated profit was as follows

Item	Non-Bt Maize	Bt Maize
Cost of seed per hectare	R345.00	R693.00
Estimated yield per hectare (whole cobs)	7 700kg	8.800 kg
Estimated yield per hectare (grain)	3 850 kg	4 400 kg
Gross profit	R7 355.00	R8 107.00
Advantage of Bt over non-Bt maize	R752 per hectare	

The above estimates are based on the following:

- An average grain price of R2 000 per ton.
- A ratio of 50 : 50 regarding weight of grain : weight of the bare cob.

THE END