

PLANT CATALYST YIELD RESULTS REPORT

A. Soya Beans Research Trials

1. Choma / Southern Province

Crop / Variety	Field Size	Quantity of Seeds Planted (Kg)	Control		Treated		Remarks
			Fertilizer Applied (Kg)	Yield (Kg)	Fertilizer Applied (Kg)	Yield (Kg)	
Soybeans / Dina Certified Seed	0.125 ha	12.5	25kg – D Compound	550 (11 x 50kg Bags)	12.5kg D Compound	650 (13 x 50kg Bags)	We treated the seed with 30mls plant catalyst at planting and repeated spraying 60mls every week on treated soya beans only

The potential yield for Dina soybeans variety from Syngenta is 4.5 tons per hectare (90 x 50kg) bags. From the 0.125 ha size of field under this trial, the expected yield was therefore 562.5 Kg (11 x 50kg Bags) for both Control and Treatment fields.

The actual results shows that from the Control field the yield was 550kg (11 x 50kg) and was less by 12.5kg compared with the normal expectant yield. Additionally, under control we experienced a bit of crop shattering, and the pods/ fruits were a bit smaller compared to the treated soya beans crop.

The treated field yielded 650Kg (13 x 50Kg Bags) which is way above the expectant normal yield, it was above by 87.5kg. We did not experience any crop shattering and the crops had big pods/ fruits compared to the control soya beans crop. The quality of the pods is also excellent under treated soya beans.

2. Luanshya / Copper belt Province

Crop / Variety	Field Size	Quantity of Seeds Planted (Kg)	Control		Treated		Remarks
			Fertilizer Applied (Kg)	Yield (Kg)	Fertilizer Applied (Kg)	Yield (Kg)	
Soybeans / Dina Recycled Seed	0.125 ha	12.5	25kg – Soya Mix	200 (4 x 50kg Bags)	12.5kg – Soya Mix	350 (7 x 50kg Bags)	We treated the seed with 30mls plant catalyst at planting and repeated spraying 60mls every week on treated soya beans only

The trials conducted on the Copper belt in Luanshya also shows that soya beans that was treated with plant catalyst had more yield compared to the one where we did not use any plant catalyst.

The Luanshya trials however had relatively low yields compared to the Choma trials; one of possible explanation for this variance is the use of recycled seed in Luanshya versus the certified seed used in Southern province. The quality of the pods/ fruits was best on the treated soya beans crop compared to the control crop.

B. Cowpeas Research Trials (Choma / Southern Province)

Crop / Variety	Field Size	Quantity of Seeds Planted (Kg)	Control		Treated		Remarks
			Fertilizer Applied (Kg)	Yield (Kg)	Fertilizer Applied (Kg)	Yield (Kg)	
Cowpeas / Lutembwe Recycled Seed	0.125 ha	2.5kg on each Control & Treated	No fertilizer applied	150	No fertilizer applied	300	We treated the seed with 30mls plant catalyst at planting and repeated spraying 60mls every week on treated cowpeas only

The yields for cowpeas are relatively very low among small-scale farmers in Zambia, The reason being that most of the seeds these farmers uses is recycled. The normal yield per 0.25ha ranges from 300 – 500kgs. So based on our trials from 0.125ha on each control and treated cowpeas the normal expected yield ranges from 150 – 250kg.

The actual yields shows that the control had 150kgs (was within the normal yield) and the treated cowpeas crop had a yield of 300kg which was way above the normal yield. Both trials did not use any chemical fertilizers.

The treated cowpeas had its pods well filled and the quality is very good compared to the treated cowpeas crop.

Vegetable Research Trials

We have not yet started research demos on vegetables, one big reason is that this time around its winter in Zambia and it’s actually very difficult to grow and manage crops. The planting of vegetable trials will commence in August, 2017.

We have identified the regions where these trials will be conducted from these includes: 1. Southern, Lusaka and Central Provinces. We are targeting to grow crops such as tomato, cabbage and onion.