



Commercial Field Trial: The effect of SeedSpeed dip on Sweet Potato cuttings prior to planting (November 2013).

C Breytenbach, T du Toit, Dr C Malan

SeedSpeed is a liquid fulvic and amino acid chelated seed treatment that ensures optimal germination and seedling growth by correcting and balancing nutrient levels in the seedling root zone. This ensures the elimination of associated plant physiological imbalances. Results achieved with this product is improved and accelerated germination of seed as well as enhanced root development resulting in healthier and stronger growth.

The active organic acids in **SeedSpeed** are used to chelate the minerals but also has the added benefit of wetting and spreading to ensure proper seed coverage during treatment. These molecules are hygroscopic which contributes towards effective water uptake of the seed during germination. The readily available mineral nutrients in this formulation ensure that the seedling has a balanced source of nutrients that result in the germination of vigorous seedlings with a well-developed root system.

HYPOTHESIS

Can the number of sweet potatoes produced per plant as well as tuber mass (yield) be improved by dipping sweet potato cuttings into AgriLibrium's SeedSpeed prior to planting on a commercial scale.

TREATMENT

A commercial block trial has been initiated that includes a 0.6 ha control plot versus a 0.6 ha treatment plot . Each block has 31 rows with a length of 120 meters. *From results obtained from a previous field trial it was found that a treatment concentration of 1 SS : 2 H2O achieve optimum results.*

Crop Type	Treatment (Seed Speed)	Control
Sweet Potato	1 SS : 2 H ₂ O <i>(12SS : 24H₂O)</i>	No Seed Speed

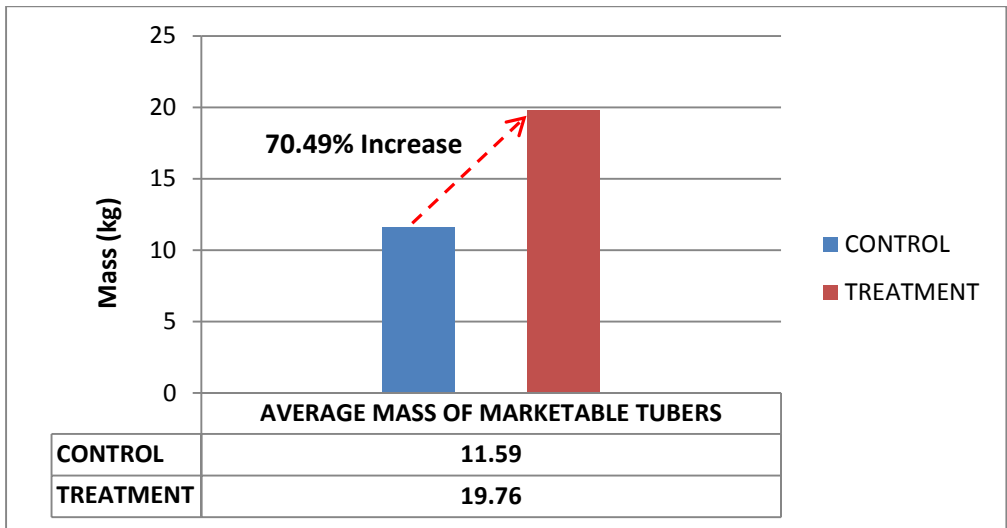
This commercial field trial was initiated and done by Carel Breytenbach of Messina Landboudienste (Agricultural services) in the Waterpoort area north of the Soutpansberg to determine the effect of SeedSpeed on rooting of sweet potato cuttings, growth and yield. Planting commenced on the 22th of February 2013.

RESULTS

Increase in the number of maketable tubers:

TUBER SIZE	BLOCK 3 - CONTROL		BLOCK 4 - TREATMENT	
	TUBERS	MASS/KG	TUBERS	MASS/KG
BIG	12	9.43	1	1.10
MED - BIG	17	7.43	9	5.50
MEDIUM	0	0.00	17	7.40
MED - SMALL	13	4.16	22	6.86
SMALL	12	2.10	19	3.92
TOTAL	54	23.12	68	24.78

The number of **marketable tubers** is highlighted in the red box.



Results obtained showed an increase of 70.49% in the number of marketable tubers.

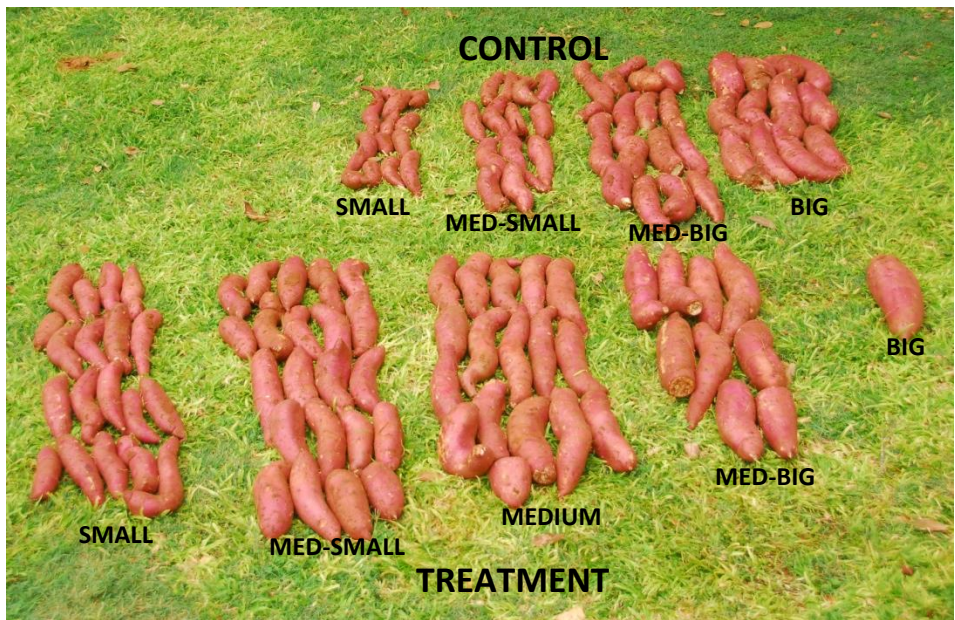
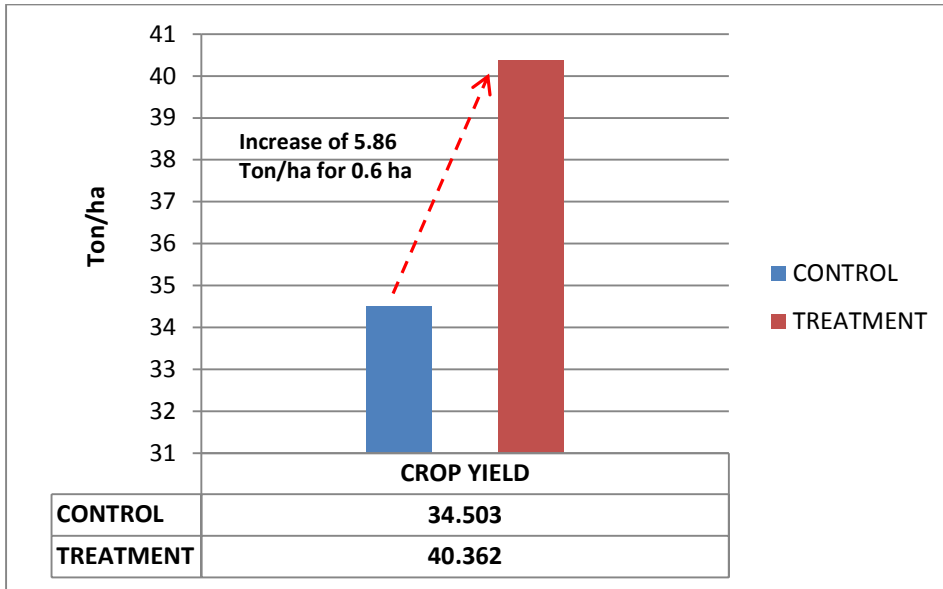


Figure 1: Photo illustration of the difference in size and mass of the number of tubers.

Crop Yield:

Yield results were measured by harvesting the fruit in separate crates, the standardized average weight was ± 21kg per crate harvested fruit.

	BLOCK 3 – CONTROL (0.6 hectares)		BLOCK 4 – TREATMENT (0.6 hectares)	
	No. of crates/row	TOTAL MASS/KG	No. of crates/row	TOTAL MASS/KG
YIELD	53	34503	62	40362



Comments:

The commercial trial showed an increase in production, it is clear that Seedspeed had a positive effect on the growth and yield of sweet potatoes.