Field Trial: The effect of a SeedSpeed dip on Sweet Potato cuttings prior to planting (April 2012).

SeedSpeed is a macro and micronutrient enriched 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 at the early stages of growth when a well-developed root system is crucial in determining the season's growth and yield. Typical 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 also hygroscopic which contribute towards effective water and nutrient uptake of the seedling during germination. The readily available mineral nutrients in this formulation ensure that the seedling has a balanced source of nutrients that result in vigorously growing seedlings with a well-developed root system.

Hypothesis

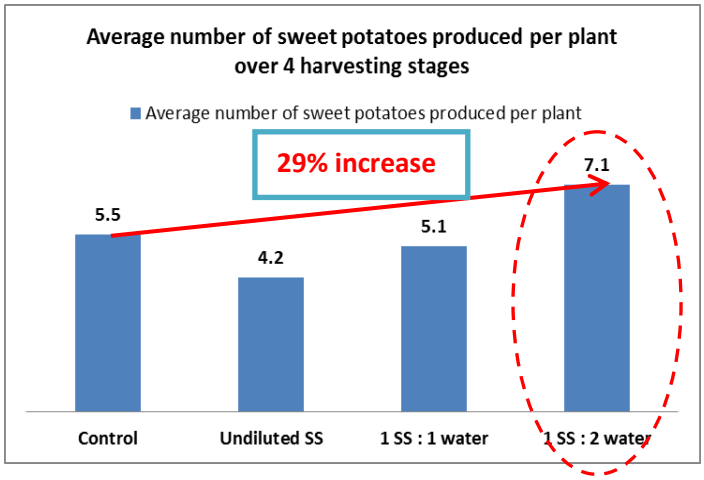
The number of sweet potatoes produced per plant as well as tuber mass (yield) can be improved by dipping sweet potato cuttings into AgriLibrium's SeedSpeed product prior to planting.

**This field trial was initiated and done with the dedicated help of Carel Breytenbach of Messina Agricultural Services to determine the optimal concentration of SeedSpeed at which sweet potato cuttings will achieve optimum results. Planting of the cuttings commenced on the 17th of April 2012 and was done on a farm in the Waterpoort area of the Limpopo Province.*

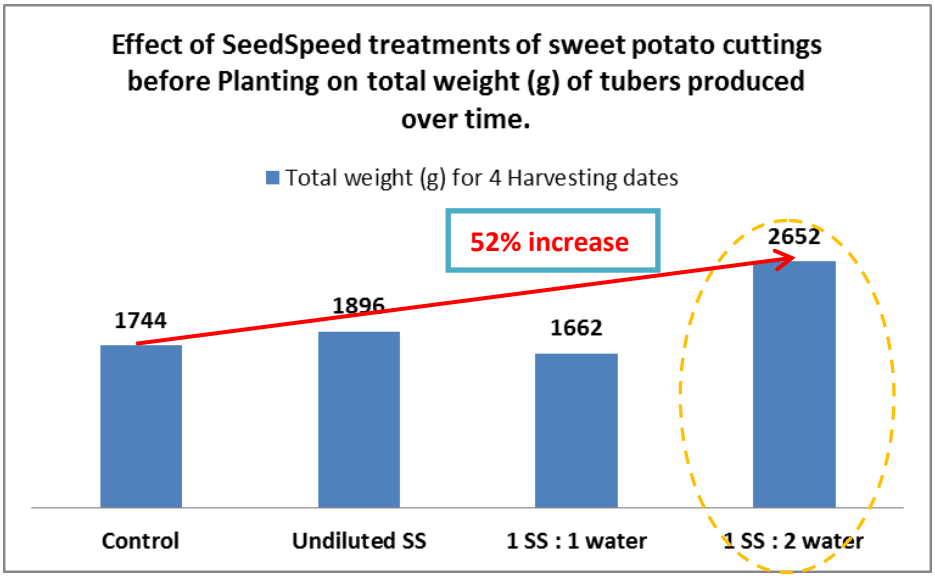
Treatment

Crop Type	Treatment (SeedSpeed dip)	Control
Sweet Potato	Undiluted SS	No SeedSpeed
Sweet Potato	1 SS : 1 water	No SeedSpeed
Sweet Potato	1 SS : 2 water	No SeedSpeed

Results

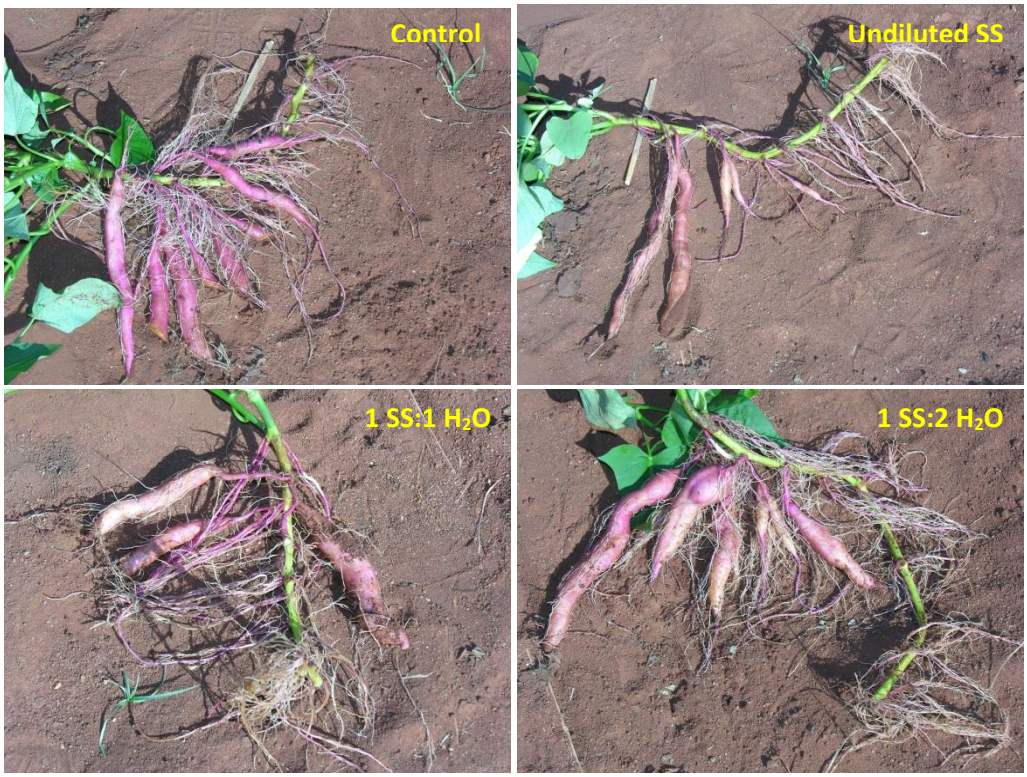


At **1SS:2 H_2O** there was a significant increase in tuber mass as well as the number of tubers produced per plant. The treatments with the more concentrated solutions had an inhibitory effect.



From the results obtained, concentrated treatments (undiluted SS, 1 SS: 1H_2O) of SeedSpeed affected initial rooting and development and growth as can be seen from images below.

5 June – 6 Weeks after planting



Although the initial root growth of sweet potato cuttings was affected by concentrated treatments of SeedSpeed, an significant increase in tuber mass was observed for undiluted SeedSpeed treatment in the following weeks.

3 July – 10 Weeks after planting

7 August – 15 Weeks after planting

25 September – 21 Weeks after planting

From the results obtained in this trial another large scale commercial field trial has been initiated (April 2013) that includes a 1 hectare control plot and a 1 hectare treatment plot (1 SS:2 H_2O) . The results of this trial will be presented as soon as it has been completed