

# SEMI AUTOTROPHIC HYDROPONICS CASSAVA SEEDLINGS PRODUCTION

A rapid quality seed delivery technology for cassava



## TECHNOLOGY / SOLUTION

The SAH technology is a rapid, low-cost, and pathogen-free propagation technique of cassava planting material. In-vitro seedlings are placed in semi-controlled, semi-hydroponic (modified soil and little water in trays) conditions.

Every 2-3 weeks the planting material can be cut, making two plantlets from one, and the new plantlet is put back into the growth chamber. The technique allows the production of true-to-type plantlets with a solid root system after 6-8 weeks.



## PROBLEM / ISSUE SOLVED

- Slow and low multiplication ratio in cassava seed
- The traditional method of cassava seed multiplication by
- Low availability of improved planting material in particular in the neighborhood for small farmers
- Low technical capacity for rapid, low-cost, and high-volume multiplication of improved cassava seed



## GOOD FOR Seed growers



## BENEFITS

- ✓ Novel, low cost, technology for rapid propagation of cassava planting materials
- ✓ Allows supplying a large number of cassava plantlets in a shorter time than stem and tissue culture methods
- ✓ Produces clean planting materials that are disease-free
- ✓ Produces certified true-to-type plantlets of new improved cassava varieties



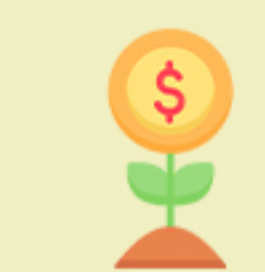
**Seed system**  
Speciality



**Cassava**  
Commodity

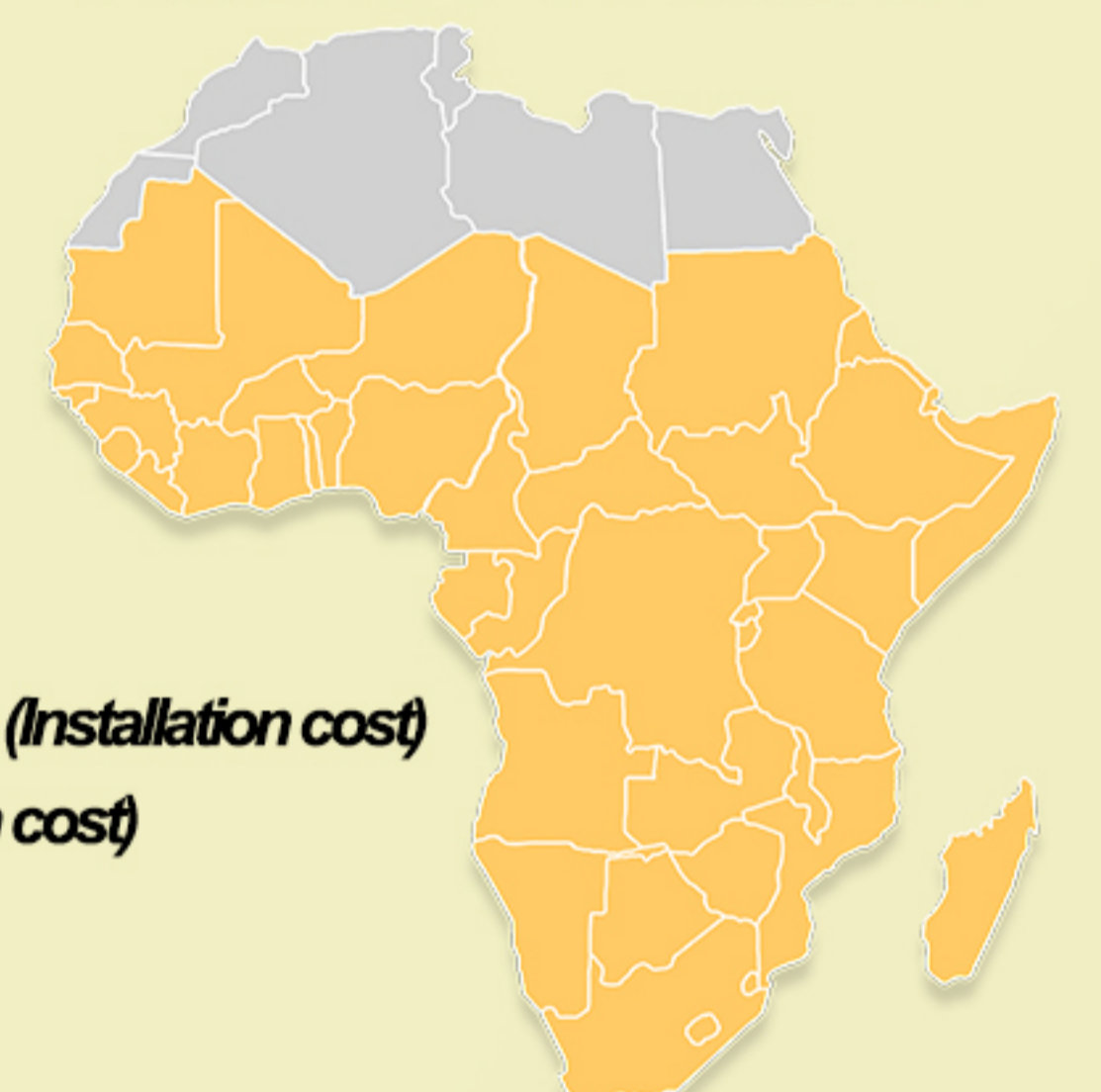


**USD 10,000 / 50,000 Plantlets (Installation cost)**  
**USD 0.05 / 1 Plantlet (Production cost)**  
Initial investment



**USD 0.07 / plantlet**  
Return On Investment

ALREADY IN USE IN



Africa South of the Sahara

## HOW DOES IT WORK?

In-vitro seedlings from improved cassava varieties are placed in semi-controlled, semi-hydroponic environmental conditions into a growth chamber or a screenhouse.

After 2-3 weeks in-vitro seedlings are cut into 2 mother plants and replaced in the growth chamber. The procedure can be reproduced over and over again. After 6-8 weeks the seedlings are ready to be planted.

