

# In stevia, I found my second job and career

Using the tissue culture technology, in the incubator, Julius Nyanzi mixed processed water hyacinth with Irish potato extracts to develop a rare stevia plant, writes Phionah Nassanga.

The sky is clear as we drive from Kampala towards Nakasongola District, some 100km away.

Our destination is on an eight-acre farm in Wabigalo village in Nakasongola where farmer Julius Nyanzi grows stevia, among other crops.

Over half of the farm hosts eucalyptus, pumpkins and lavender herbs in different portions. The other part, about some three acres, hosts the stevia plants.

"I plant them at different times to ensure I have produce all-the-year round. The ones over there I planted early January while the others last year," says Nyanzi as he squats to check on a plant.

## Nyanzi the researcher

Unlike other graduates who move from one corner of the city to another looking for employment, Nyanzi started earning from his career right from University.

Nyanzi's dream of becoming a renowned researcher in the agriculture industry started years back.

The loss of his relatives to diabetes kept him wondering if there would be a nature plant that would use instead of sugar.

At first he thought sorrel (*Kanyebwanyebwe*) would be a substitute for sugar but when he grinded, it had no better results.

"My journey to be a researcher started at an early age and it has been resilience to make the dream come true," Nyanzi remarks.

Pursuing a Bachelor's of Science in Botany and Chemistry Pharmacology at Makerere University enabled him do more research, reading a number of books and visiting the Internet for more information.

However, during one of his studies Nyanzi came across a tropic plant called stevia that can be substitute for sugar and on reading about its health benefits, he saw the worth of growing such a crop in Uganda.

"In my second year at University, I got a chance to work with Agro Genetic Technologies, a tissue culture company in Buloba where I gained experience in tissue culture," he recalls.

While at Buloba, Nyanzi's research on stevia did not stop he went to ure his idea about stevia with different people who seemed to show no rest but this did not stop him.

## STEVIA FACTS

When growing the plant you first heap the soil, make heaps such as those of Irish potatoes you can then use plastic mulch or dried grass to avoid weeds before planting.

Stevia is ready for harvest after four months only for the first time harvest and the next will be every after two months which is continuous for five years

This will require one to keep cutting off the terminal bud every now and then. Once the plant flowers that will be the end of its life span because its seeds are dormant, they do not germinate

One kilogramme of stevia is sold at Shs23, 000 depending on the quality of leaves which is the sweetness and the leaves must not be over grown that is why you need to harvest at four and two months.

## Growing stevia

Having acquired knowledge of tissue culture, Nyanzi used processed water hyacinth extracts adding them to Irish potato extracts and placed the stevia leaves in the mixture putting them in an incubator.

Like the water hyacinth the small leaves started developing roots. Getting his first seedling he transplanted to a pot and later on multiplied it.

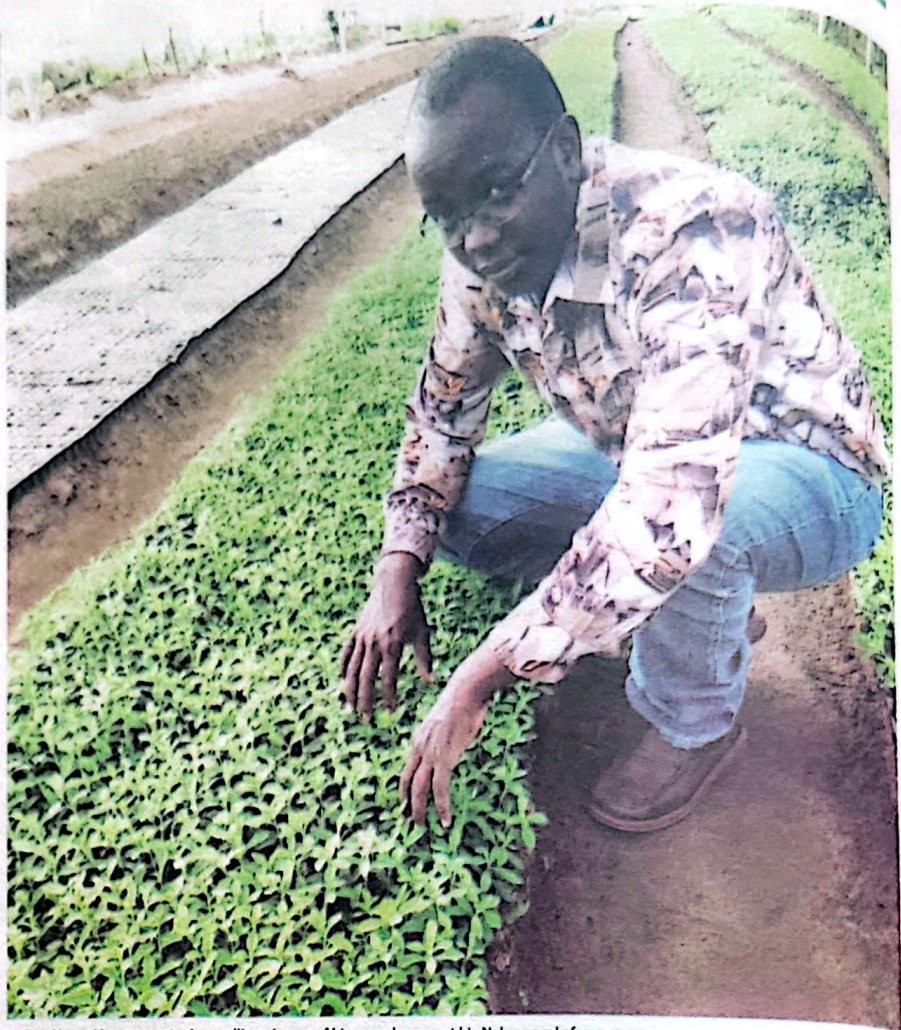
"This was my greatest achievement," he remarks. Sharing his vision of growing stevia on a large scale with his grandfather, Nyanzi was offered about two acres of land in Masanafu, along Hoima Road, which he expanded to Nakasongola after some time.

## Marketing

Making his first seedling, Nyanzi took it to the science laboratory in Makerere where lecturers who had read about the plant got excited.

"I took a step and shared with some doctors at Mulago about my new achievement, good enough some had read about stevia though they did know where to find it," he says.

Adding moving around the hospital explaining to different people that the new plant would act as a substitute for sugar was not easy. Some would first take a test on the leaves before buying it so cheap.



Julius Nyanzi inspects stevia seedlings in one of his greenhouses at his Nakasongola farm. PHOTO BY PHIONAH NASSANGA

# 23,000

COST IN SHILLINGS OF A KILOGRAMME OF STEVIA

Finding market for his first raw products was not easy because not many people knew much about stevia.

In 2014, Nyanzi says stevia made record sales of Shs800,000 during the Uganda smallscale industries exhibition at Lugogo as an inferior exhibitor, this brought him into the limelight after interfacing with many people.

From then, stevia has been on a high demand not only in Uganda but also outside Uganda. He says stevia is three times sweeter than ordinary sugar.

## Valve addition

"The only way I would earn from stevia was by adding valve, extracting its sweetness in a liquid and powder form because selling it in its raw form had become quite hectic and cheaper," Nyanzi remarks.

At Masanafu right in his mother's kitchen with a mortar and pestle he started drying and grinding stevia leaves to form a powder that lasts and is easy to move around with.

When drying stevia leaves all you need is modest warm temperatures and enough air.

"Exposing the leaves to direct sun destroys the sweet component. I also made local dries out of boxes, a black and white film which allows in light," he says.

However, because the green powder appears like residues in juices, Nyanzi started distilling clear liquid syrup from stevia, which would leave no traces in clear juices and could also be used in cake baking.

"Mastering the distillation process took me a year to perfect the liquid," he recalls. Nyanzi has now been able to buy extractor machines, grinders and distillers that help him work so easily and also produce quality stevia products.

Nyanzi has established an outlet at Equatorial mall. He sells a 45-gramme tin of stevia powder at Shs3, 000 while the biggest 180 grammes goes for Shs15,000. "I do help farmers and agriculture students with practical and functional information. I am available at Equatorial mall for consultation about our products and this new crop," says Nyanzi.

## Challenges

"Limited government support to native researchers is the biggest setback that has compromised research in the country. This has demoralised would be researchers and farmers hence dependence on the foreign products," he revealed.

Limited knowledge by the local population about improved local products has forced many farmers to give up due to minimal support.

## Caution

"Farmers must learn how to research and stop thinking the only research required is knowing the targeted market and its start because by adding valve to your produce you are creating a new market that has not been in place. When I got to know about stevia I went ahead made research and created the market," he says.

