

Nsubuga's disease free Irish potatoes

Irish potato is one of the many food crops popular among Ugandans. Because the crop is increasingly getting attacked by pests and diseases, farmers have opted for remedies. One such a farmer is Erostus Nsubuga who has started disease free seed multiplication plant at Namawojolo, writes Denis Bbosa.

For years now, crop expert Erostus Nsubuga has etched out a name in breeding banana suckers using the tissue culture technology at his AGT Company in Buloba.

While excelling at bananas, Nsubuga recently started the growth of Irish potatoes using the same technology and the proliferating demand has made Nsubuga start up a 10-acre potato venture in Namawojolo, Mukono District.

"This is going to be the biggest private potato tissue culture centre in East and Central Africa. We have been trying out the technology at our Buloba facility but it is now time to make it a fully-fledged venture that can serve potato seedlings throughout out Africa," Nsubuga revealed of his multi-million project.

Why Irish potato?

Nsubuga says many Ugandan farmers have decried the many diseases that attack Irish potatoes which prompted him to try out the tissue culture methodology that ensures that a plant is disease free at production stage.

"Ugandans do not treasure potatoes like it is the case in Kenya where it is treated as the first quality food crop. We are going to produce disease free potatoes. It does not mean that the plant cannot be attacked by disease but the possibility is limited," he adds.

The other reason Irish potato is regaining the farmers' trust is because of its life span and durability even when kept in the remotest of ways.

"To solve the issue of food security in the country, we need to grow more Irish potatoes because they can take even six months without getting damaged. Since every region in Africa consumes Irish Potato, it increases the chances of exportation," Nsubuga revealed.

What is tissue culture?

Plant tissue culture is a collection of techniques used to maintain or grow plant cells, tissues or organs under sterile conditions on a nutrient culture medium of known composition. Plant tissue culture is widely used in Asian countries and Europe to produce clones of a plant in a method known as micro propagation.

How tissue culture is done

During this procedure, plant cells can be removed from various parts of a plant and placed on media in petri plates. The media does not contain the growth hormones normally present in a plant that tells the cells which tissue to develop into. As a result, the cells do not differentiate and instead form a mass of cells called a callus that are

1,000

AMOUNT OF SHILLINGS THE FARMER SELLS EACH TUBER

not differentiated into at the tissue level.

Tough start

Although Nsubuga remains discreet about the money he invested into buying the ten acres for his project at Namawojolo (less than 20 miles from Kampala), market value puts it to Shs500m.

Put simply, Nsubuga has so far invested Shs2bn in building the green houses, teaching workers and buying necessary equipment at the centre.

He has over 50 green houses with planted Irish potatoes at different levels of growth.

"I start the process at Buloba AGT facility (for now) and I bring a glass tube containing the seedlings here. Each tube may contain 10 tubers that multiply into over 50 disease free mini tubers ready for the nursery bed. After sometime, I plant these suckers in my gardens. I also sell them to farmers who seek them in multitudes."

Most of the over 20 workers at his newly established centre are woman - because they have the tender care that needs to be extended to the potato tubers at the stage of transformation from the glass into the nursery bed, he says.

Because a farmer can get many offshoots from one tuber, the price of each varies from Shs1,000 to sh2,500.

High demand

In all his tissue culture produced agribusinesses, Nsubuga is driven by the desire to satisfy

Makerere University support

According to Dr Stephen Lwasa who heads the Makerere University Agricultural Research Institute (Muarik) facility at Kabanyoro, tissue culture, though largely for the rich, is the ideal farming technology to embrace in this disease rampant period.

"We have students using tissue culture on crops such as bananas, Irish potatoes and cassava but we do not have the resources to make it commercial like Nsubuga," Lwasa revealed.

He says farmers have embraced the technology because it focuses so much on limiting the diseases.

"Plant breeding and multiplication is a technique government should take on only that it is expensive and cannot be worked on by everybody. It requires experts thorough out the system."

Who is Nsubuga?

He is the Chairman of Uganda Biotechnology and Biosafety Consortium (UBBC) and also Chairman of Tissue Culture Business Network

(TCBN) in East and Central Africa. Nsubuga, plant breeder by profession and a master's degree holder in Marketing from the US, owns the Agro Genetic Technologies (AGT) industry in Buloba along Mityana road specializes in producing vegetative propagated crops such as bananas, pineapples, coffee and Irish potatoes. He is also a member of the Presidential Technical Advisory Committee on Business Competitiveness in Uganda under the Presidential Investors Round Table (PIRT) and is the Chairman of Tissue Culture Business Network (TCBN) in East and Central Africa.



Nsubuga explains the seed multiplication process PHOTOS BY GEOFFREY LUKAAGA



Workers insert the tissues into the vessels. Below is the grown seedlings

