



AI-generated image

Mobile app offers crop disease diagnosis in local languages

By Ngalame Elias

A **MOBILE** app developed by a Cameroonian agriculture startup is helping small-scale farmers in the country cope with frequent crop disease attacks, improving yields and income.

The app, introduced by Agrix Tech, a company that is working to help smallholders shift from subsistence to commercial farming, has capabilities to diagnose plant diseases at the primary stage by analysing photos of sick crops and suggest appropriate treatment.

Agrix Tech co-founder Landry Doko says the technology has been particularly effective in detecting early blight in crops, a common disease that can occur nearly every season.

“This app was made to diagnose plant diseases and suggest appropriate treatments. It operates offline and is available in Cameroon’s national language. We have also developed others that enable agricultural risks to be studied from the outset of the project,” Doko says.

The diagnosis is delivered through text and voice for the easy understanding by farmers who could be semi-literate. Users can choose standard or pidgin English and French, as well as African languages like Hausa.

“Most of the small-scale farmers in developing countries are self-taught farmers who lack proper knowledge in crop diseases and pests’ management,” says Adamou Nchange, who works with Agrix Tech.

“Because of that, 49 percent of agricultural produce in Africa is lost due to crop diseases and pests. With our app, we aim to enable farmers to improve their crop disease management and therefore become more productive.”

Using the Agrix Tech app, a farmer scans his unhealthy plant, with the recorded video automatically analysing using machine learning techniques and the farmer then provided with sustainable treatment recommendations.

The app helps farmers during the whole production cycle – seeding, growing and storage – through advice and task reminders.

“Using the app on our phones we get regular information via SMS from agriculture technicians on what to do during seeding, growing and storage

stages of production,” says Njume John, a tomato farmer in Tombel, Southwest region who benefitted from training by Agrix Tech on the use of ICT in farming.

Over 5,000 farmers in the Southwest region of the country have benefited from short training on the use of the app.

Though Doko of Agrix Tech admits that many small-scale farmers still have doubts about the use of ICT, more and more are signing up. So far, Agrix Tech has over 5,000 active users, all in Cameroon.

Grant-funded until now, Agrix Tech is seeking US\$580,000 in funding to improve its product capability and scale, he says. That said, it is making revenues after a process of finding product-market fit.

“We sell advertising spaces to agri firms on our app, and we sell user licences to people who want to use our app on a large scale, such as agricultural consulting companies,” he said.

“The penetration rate of smartphones in rural areas in Africa is still very low. It forced us to iterate on our business model many times before we finally landed on the current one.”

Herve Epome Nzengue, 31-year-old entrepreneur, and his team have created AgriApp, an online shopping application that connects local farmers directly to consumers. By the end of last year, some 700 farmers, primarily from the outskirts of Cameroon’s economic centre Douala and the Southwest region, had put their products online for sale.



A staff showing how the Agrix Tech mobile app works. Photo Credit: Agrix Tech