

# Cassava Matters

## Eight IITA digital tools every smart cassava farmer must have in 2020

Africa is a major producer of cassava in the world, but many farmers are recording low yield per hectare (less than 10 tons per ha) due to poor weed management, wrong application of fertilizers, low knowledge of cassava agronomy, and the cultivation of poor quality seeds with low genetic potential. On the flip side, countries in Asia


have yield of more than 20 tons per ha. This is not cheery news, says Dr Bernard Vanlauwe, Director for Central Africa Hub at the International Institute of Tropical Agriculture (IITA).

To change this narrative, IITA has developed digital solutions to tackle the agronomic challenges undermining yield

in Africa and is presently disseminating the recommendations to farmers through partners and extension agents.

These smart farming tools are helping cassava farmers make wise investment decisions. Eight of these tools that serve cassava, are discussed below:

### 1. Akilimo paper and Mobile Application

 **AKILIMO**: a digital service to deliver tailored agronomic advice



Developed by the African Cassava Agronomy Initiative (ACAI) of IITA, *Akilimo* is an all-in-one agronomic advisory tool that supports cassava growers with knowledge and recommendations to intensify their cassava-based cropping systems. Recommendations from *Akilimo* are based on the knowledge gathered from field trials in over 5,000 farmers' fields, according to Dr Pieter Pypers, Project Leader for ACAI. *Akilimo* combines this data with weather and soil data in spatial crop models to calculate expected yield increases and revenue gain from investments in improved agronomic interventions. These include customized advice on fertilizer

application, tillage regime and best planting practices, cost-effective weed control measures, intercropping practices, and tailored planting and harvest schedules.

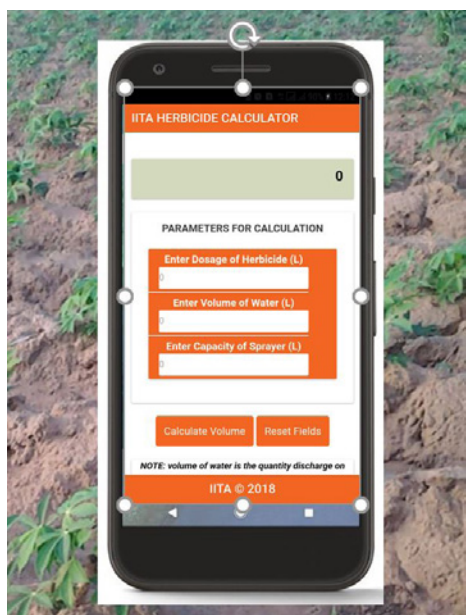
*Akilimo* exists in different formats—as paper-based tool, mobile app, and as component of the digital tools of the 3-2-1 service of Viamo. *Akilimo* will also be included in the chatbot of Arifu, and the existing agronomic content of eSOKO. A unique feature of *Akilimo* is that its recommendations are site-specific and tailored towards the farmer's needs and cropping objectives since the app only advises after obtaining answers

to vital questions and as well as the user's farm location via GPS or manual imputation. *Akilimo* combines the 3-2-1 service of Viamo. By simply dialing 3-2-1 on any mobile phone with an Airtel sim card, a farmer can get information on cassava agronomy free of charge up to 10 times in a month. All that a farmer needs to use this service is a simple mobile phone with an Airtel sim card and the ability to press 3-2-1 on the phone. The service requires no education and no internet. The *Akilimo* advisory service on Viamo is available in English, Yoruba, Hausa and Igbo.

... from page 1

The agronomic recommendations were developed by the Cassava Weed Management Project (CWMP) and the African Cassava Agronomy Initiative (ACAI). The name *Akilimo* was coined from a combination of two Swahili words: *Akili*, meaning Smart/Intelligent and *Kilimo* meaning Agriculture, which loosely translates to smart agriculture.

## 2. IITA Herbicide Calculator



The IITA Herbicide Calculator is a mobile app developed by IITA's Cassava Weed Management Project (CWMP) (now ACAI) to forestall incidents of under-dosing or overdosing of herbicides. This simple mobile application, which has been embraced by many cassava farmers in Nigeria, Tanzania and several other African countries, has many benefits. It brings about precision in agriculture, helps farmers to become more efficient and prevents economic losses arising from overdosage of herbicides.

“The app also prevents environmental pollution and herbicides resistance arising

from herbicides abuse,” says Prof. Friday Ekeleme, Principal Investigator on Weeds under ACAI.

The App helps farmers and spray service providers to estimate correctly, the quantity of herbicides to be added to knapsack sprayers and promotes the effectiveness of herbicides. The herbicide calculator was developed under the coordination of Godwin Atser, IITA Digital Extension & Advisory Services Specialist, and is the most downloaded of the apps recently rolled out.

## 3. Cassava Seed Tracker

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# Cassava Seed Tracker

The Cassava Seed Tracker™ is a fully featured program for real-time tracking of cassava seed production, including pre-planting planning, registration of seed fields, crop management, harvesting, quality assessment and quality assertion. The Cassava Seed Tracker is also a digital platform for communication and networking of cassava seed producers and service providers for common good.

Get started

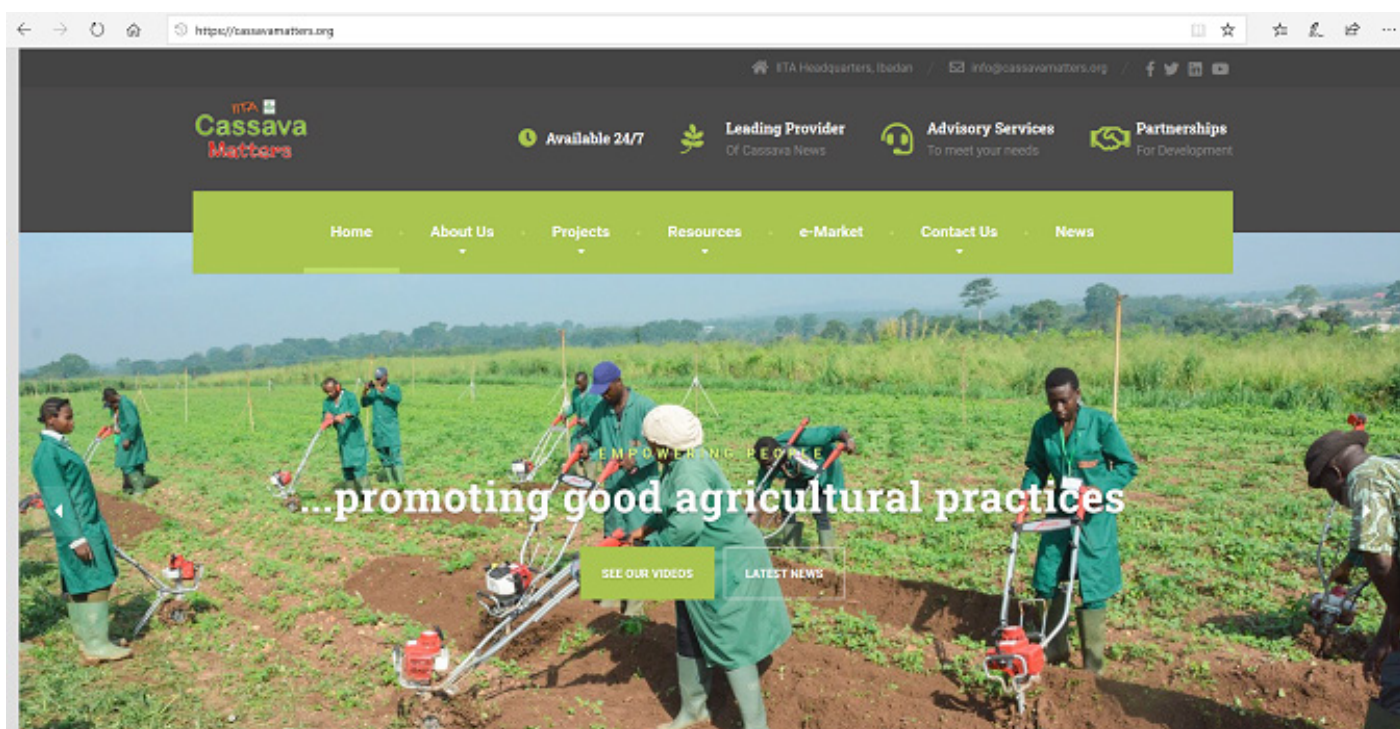
Cassava seed tracker

Access to high quality and affordable cassava planting materials is an important part of cassava farming since it affects the performance of the crop. The Cassava Seed Tracker is a web-app that provides essential features for quality seed production and access to quality stem cuttings of improved cassava varieties from the accredited seed producers. The Seed Tracker is available on android app in Google Playstore, and

it enables registration of seed fields for accreditation by National Agricultural Seeds Council (NASC). It also facilitates the buying and selling of quality stem cuttings of improved cassava varieties from accredited seed producers. This app provides details of improved cassava varieties released in Nigeria, the location and availability for ready access. The map-based curation features readily helps users to navigate for information and access seed sellers or buyers.

The app was developed by a team at IITA-Nigeria led by Dr Lava Kumar, a Virologist and Head of the Germplasm Health Unit under the CRP-RTB and piloted in Nigeria in collaboration with the National Agricultural Seeds Council (NASC) through the Building an Economically Sustainable, Integrated Seed System for Cassava in Nigeria (BASICS) project.

## 4. Cassava Matters (Cassavamatters.org)



The Cassava Matters website, [cassavamatters.org](http://cassavamatters.org), is the online knowledge bank for farmers, extension agents, researchers, policymakers, and other stakeholders in the cassava sector.

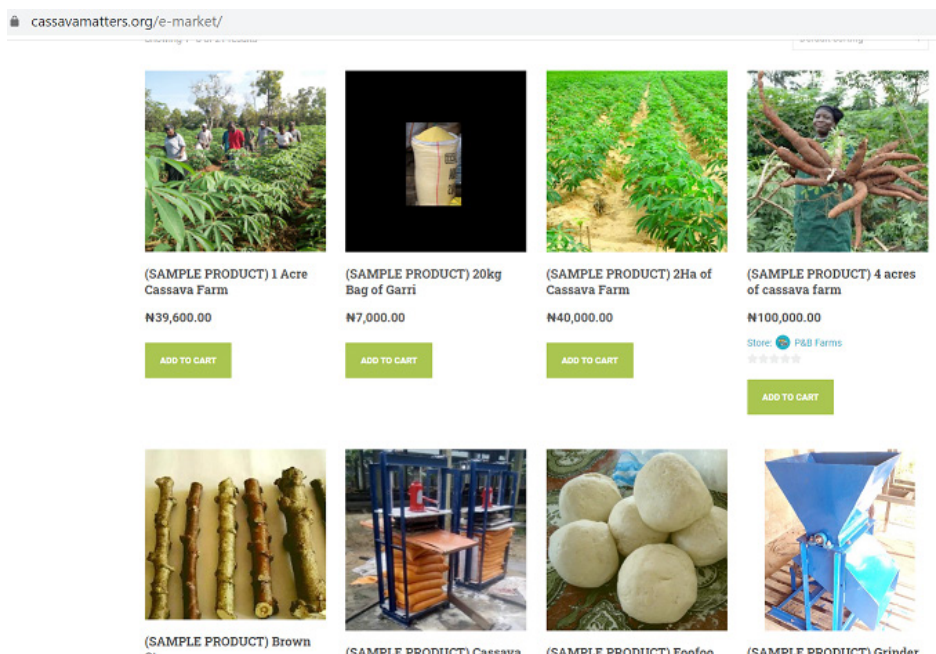
The web platform was developed under the leadership of Drs Alfred Dixon (IITA Director

for Development & Delivery) and Bernard Vanlauwe (IITA Director for Central Africa) and it provides information that improves cassava yields, weed management, cassava processing and marketing etc.

Cassava Matters operates as a collaborative platform between the Cassava Weed

Management Project also known as the Sustainable Weed Management Technologies for Cassava Systems in Nigeria, the African Cassava Agronomy Initiative (ACAI) and the Cassava Seed Systems project also known as Building an Economically Sustainable, Integrated Seed System for Cassava in Nigeria (BASICS).

## 5. Cassava e-Market



The Cassava e-Market is an online market place for cassava and cassava-related commodities on Cassava Matters website, [www.cassavamatters.org](http://www.cassavamatters.org).

The platform is a multi-seller/multi-vendor avenue for farmers (especially cassava farmers) to advertise and sell their produce. Related farming and processing equipment,

herbicides, fertilizers, farmlands and lots more can also be advertised, sold and bought on the Cassava e-Market.

Since its debut in 2019, farmers and traders have been excited about the e-Market, because they can buy and sell processed cassava products like *garri* and *fufu* in large quantities and at great prices.

The platform was developed under the coordination of Godwin Atser, IITA Digital Extension & Advisory Services Specialist and it operates like other popular online stalls such as *Alibaba* and *Kijiji*.

## 6. Farming on Radio



IITA DG, Dr Nteranya Sangina in the IITA Radio studio with the IITA Director of Development & Delivery, Dr Alfred Dixon

Apart from being a companion and a source of information, radio has become a vital knowledge-enhancing tool for farmers, thanks to a program called “Farming on Radio”.

“Farming on Radio” is a radio program that broadcast agronomic recommendations to farmers. The program is aired on three Nigerian radio stations and in three languages – English, Yoruba and Tiv. The radio stations on which the program is aired are Splash FM (105.5 FM), Harvest FM

(98.9FM) and Amuludun FM (99.1FM). There is a plan to extend the program to Tanzania in 2020.

The three radio stations are among the most listened to stations, according Media Planning Services— an agency that advertisers depend on to make investment decisions.

The program on Ibadan-based Splash FM, which is also streamed online is aired

every Wednesday, 7.00 PM – 7.30 PM and is anchored by Seun Akinola with Godwin Atser. On Benue-based Harvest FM, the program is aired in Tiv language by 1.00PM -1.30PM every Fridays and anchored by Joseph Kwaghdega with Godwin Atser; while Amuludun FM airs the Yoruba version every Tuesdays (5.00PM – 5.30PM) with Rasheed Adegbola as the anchor with Abiodun Olatoye, an extension agent with Oyo State Agricultural Development Program.

## 7. Cassava Matters on YouTube

Extension agents working with ACAI are currently using videos to educate farmers on best bet agronomic practices. These videos are great tools for farmers because they contain visuals that help in communicating the recommendations.

Another high point for these videos is that they are available in several languages including English, Yoruba, Tiv, Igbo and Pidgin English.

## 8. GoSeed Tracker



The GoSeed Tracker is a fully featured program for real-time tracking of cassava seed production, including planting planning, registration of seed fields, crop management, harvesting, quality assessment and quality assertion. The GoSeed tracker also serves as a digital platform for communication and networking of cassava seed producers and service providers. The tracker was developed by the IITA Business Incubation Platform (BIP).



Digital tools feature

This newsletter is produced by African Cassava Agronomy Initiative (ACAI) in collaboration with the BASICS projects.

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