

ACAI and IITA-CWMP begin harvest of 2016 trials in Nigeria ...Harvest shows promise



Cassava from a weed controlled plot and harvested at 11 months

The African Cassava Agronomy Initiative (ACAI) project being managed by the International Institute of Tropical Agriculture (IITA) has commenced harvest of the 2016 established field trials in Nigeria. The harvesting of the field trials kicked off on the 29 April at Orire local government area in Oyo state, South West Nigeria with non-destructive plant assessments and a three-day workshop on the harvesting procedure led by Drs Stefan Hauser, IITA/ACAI Senior Agronomist; and Christine Kreye, IITA/ACAI Agronomist and Prof Felix Salako from the Federal University of Agriculture Abeokuta (FUNAAB).

The harvesting will cover more than 300 trials across seven states in southern Nigeria and will stretch over approximately two months. Three types of trials were established in early 2016 and are now due for harvest. The trials were investigating the response to fertilizer, the response to intercropping cassava with maize, and the response to different soil tillage intensities and cassava plant densities. In addition, trials were established at different seasons through 2016 to determine the effects of later planting dates and different length of growing periods. These activities were part of work stream 1 of the IITA/ACAI project

to generate the required data to develop decision support tools for the extension services.

The field trials were established in selected locations representing the targeted areas of relevance for the six use cases investigated in the IITA/ACAI project. The activities have been regularly monitored from the planting in May/June 2016 and over the following 12 months to determine how cassava responds to different conditions that occur during the growth season and how the crop responds to a range of agronomic practices.

Similarly the IITA Cassava Weed Management Project is harvesting cassava across the three zones—Humid Forest, Southern Guinea and Derived Savannah zones of Nigeria. Results from the harvest will help researchers to make informed decisions on weed control.

The Global Cassava Partnerships for the 21st Century (GCP21) will hold its fourth International Cassava Conference
Date: June 11-15, 2018
Venue: Cotonou, Benin
 Pre-registration opens on 1st September, 2017
 Please check out <http://www.gcp21.org/beninconference/index.html> for all other information

IITA/ACAI's leading agronomists and scientists together with researchers of the National Agricultural Research Systems (NARS), research students, extension officers, and development partners' organization staff are carrying out all types of evaluations on the crop at regular intervals and monitoring the overall general trial performance.

Commenting on the performance of the on-farm trials, Dr Hauser said the trials performed well.

"We are now looking forward to having a consistent data from the analyses," he added.

IITA/ACAI field trials were established and run in close partnership with FUNAAB in Ogun, Osun, and Oyo states; and the National Root Crops Research Institute (NRCRI) Nigeria in Anambra, Benue, Edo and Cross River states. Other partners include the International Plant Nutrition Institute (IPNI), CAVA-II, SG2000, Oyo State Cassava Growers Association and NOTORE.

Results from the harvest will be analyzed and used for calibration and validation of models for decision support tools and agronomic recommendations.



Samples of cassava roots being analysed

Farmers benefit from new knowledge on cassava cultivation in Osun state



L-R: Dr Alfred Dixon, IITA Director for Development and Delivery; Osun Deputy Governor, Mrs Grace Laoye-Tomori; Osun Governor, Ogbeni Rauf Aregbesola; and Dr Nteranya Sanginga during the presentation of improved cassava stems to the government of Osun state.

More than 2000 farmers in Osun state benefitted from the cassava projects which are being supported by the Bill & Melinda Gates Foundation as researchers took turns to share new knowledge on cassava cultivation, weed management, agronomy and the use of improved seeds.

The farmers were mobilized by the International Institute of Tropical Agriculture and Osun state government to mark the 2017 farmers' field day and the commissioning of the IITA Farm and Training Center in Ago Owu.

Godwin Atser of the IITA Cassava Weed Management Project gave a talk on weed management in cassava and how farmers can maximize the benefit of best-bet agronomic practices (good land preparation, accurate measurement of farm sizes, and planting distances etc.). He also spoke on the benefits of using improved planting materials (cassava stems) for planting. Dr Femi Aina of the cassava breeding unit shared insights on cassava multiplication techniques while Ms Kalejaiye of HarvestPlus

gave a presentation on the importance of cultivating and consuming yellow cassava (provitamin A cassava varieties). Other projects such as the High Quality Cassava Project, Yam Improvement for Incomes and Food Security for West Africa

(YIIFSWA) and the Aflasafe Project also made presentations.

IITA Head of Onne station and one of the lead organizers, Dr Richardson Okechukwu said the aim of the event was to showcase the outputs of research and to catalyze the adoption on new innovations.

The high point of the event was the presentation of planting materials including improved cassava stems by IITA Director General, Dr Nteranya Sanginga to the Governor of Osun state, Ogbeni Rauf Aregbesola for onward distribution to farmers.

Besides making presentations, the cassava projects also set up exhibition stands with various information materials on display to educate farmers on good weed control activities as well as safe herbicide usage, best bet agronomic practices, and the use of improved cassava planting materials.

While visiting the exhibition stand, Mrs Grace Titilayo Laoye-Tomori, Deputy Governor of Osun state expressed delight at the display of materials and stated that with the availability of what was on display agriculture should improve in the country.



Dr Richardson Okechukwu (right) taking the Osun State Governor, Mrs Grace Laoye-Tomori on tour of the exhibition



Mr Godwin Atser of IITA (right), making a presentation on cassava cultivation, agronomy, weed management, and use of improved planting materials



Participants at the farmers' field day listening and taking notes

Accelerating scaling of innovations in the African Cassava Agronomy Initiative

The African Cassava Agronomy Initiative (ACAI) team met in Ibadan, Nigeria to discuss approaches, tools and strategies that can support scaling in ACAI. The workshop, held 24-25 April 2017, brought together ACAI and Scaling Readiness teams who both seek to support scaling within the International Institute of Tropical Agriculture (IITA). ACAI seeks to promote cassava agronomy at scale, and the Scaling Readiness team seeks to support research for development projects in achieving their scaling objectives. The workshop provided a forum for the Scaling Readiness team to test whether their tools generate useful and meaningful data that could support projects like ACAI in making decisions and investments in their scaling strategy. ACAI has been selected as one of the four projects that the Scaling Readiness team will collaborate with in developing and calibrating the tools. "Developing scaling readiness tools with ACAI is crucial for ensuring that the data and analysis are meaningful in terms of informing scaling strategies. ACAI is committed to making their products and approaches work for farmers, governments and private sector, and their leadership is very supportive in developing and testing the tools," says Dr Marc Schut who is co-leading the Scaling Readiness work. Mr Murat Sartas, who has introduced the scaling readiness concept in the agricultural research for development domain, goes even further in mentioning that he expects that, "eventually scaling readiness will be used to monitor and



Participants at the Scaling Readiness meeting in Ibadan recently

evaluate impact of research for development at project, research program and institute level." According to Dr Pieter Pypers, IITA Senior Agronomist with ACAI, the scaling readiness work will help ACAI to identify and overcome scaling challenges that had not been anticipated otherwise as well as expand the thinking about ACAI innovations and their use. Dr Abdulai Jalloh, Project Leader of ACAI, extols scaling readiness for agricultural innovation as a necessary and timely approach for ACAI that will offer insight in better ways of scaling ACAI

innovations and drive the project towards impact. The Scaling Readiness concept has been spearheaded by Dr Marc Schut, Prof Cees Leeuwis and Murat Sartas who fulfill (joint) positions with IITA and Wageningen University. The Scaling Readiness work is supported through the CGIAR Research Program on Roots Tubers and Bananas (RTB), which seeks to accelerate the scaling of RTB innovations – such as those developed under the ACAI project – to improve livelihoods across the world.

IITA-CWMP trains 105 spray service providers in Abia state

The International Institute of Tropical Agriculture led Cassava Weed Management Project has trained 105 spray service providers on herbicides application, safety and use in Abia state. The training, which came at the onset of cassava planting season, was conducted in partnership with the National Root Crops Research Institute, Umudike; National Agency for Food and Drug Administration and Control (NAFDAC); and the Abia State Agricultural Development

Program. The two-day training, which was implemented in two locations— Umuahia and Isuikwuato LGA — covered areas such as the different types of weed species, herbicides, and tips on application, calibration, and safety. A practical session on calibration was conducted to help participants understand the principles and importance of calibration. The Program Manager, Abia ADP, Mr Bato Onyemaobi said the training aligned with the state

government's agricultural development program. He described improved weed control as a critical component of cassava production, adding that without good weed control farmers won't be able to make profit from farming. Mr Nnamdi Udueze, Chairman of Isuikwuato Local Government Area also commended the IITA Cassava Weed Management Project for organising the training, and pledged to work with the team in his domain. Located in South East Nigeria, Abia state like other states in Nigeria has embarked on economic diversification with more attention to agricultural development. Prof Friday Ekeleme, Principal Investigator of the IITA Cassava Weed Management Project said that the training was aimed at empowering farmers with the skills to control weeds while at the same time protecting themselves and the environment.

He noted that Abia farmers would benefit tremendously from agriculture with improved weed management, adding that "the objective of the IITA Cassava Weed Management Project is to address the drudgery caused by the use of short handled hoe."



Participants at the training on safe use and application of herbicides in Abia State, Nigeria.

Nigeria's food and drug regulator commends IITA-CWMP for training 659 spray service providers



L-R: Godwin Atser taking a session on safe use and application of herbicides in Ogun state

The National Agency for Food and Drug Administration and Control (NAFDAC) has given thumbs up to the International Institute of Tropical Agriculture (IITA) led Cassava Weed Management Project for training spray service providers at the grassroots level on the application and safe use of herbicides in Abia, Benue, Ogun and Oyo states.

The trainings, which were conducted in April - May with about 659 trained participants, built the capacities of spray gangs already existing in local communities on the safe use and application of herbicides.

NAFDAC's Assistant Director in Benue State, Mr Emmanuel Anga, noted that the application of herbicides with disregard to standards and safety was becoming worrisome and lauded the training, emphasising that it would correct the current abuse of herbicides use in the country.

Underlining the need for herbicides use in agriculture, Mr Anga said that improving cassava yield could be easily achieved with the application of herbicides.

However, he added that the application of herbicides must be consistent with the

manufacturers' recommendation in order not to undermine the health of applicators and destroy the environment.

During the training, which had both practical and theoretical sessions, participants were taught safety and correct use of herbicides. There was also a practical session on calibration using knapsack sprayers. A breakdown of trained participants across states showed that Abia had 105 participants, Benue had 101 participants, Ogun had 122 participants, and Oyo had 331 participants.

The Assistant Director for NAFDAC in Ogun state, Pharm L. J. Halim described the training as a step in the right direction. She commended IITA for organising the training, stressing that it would raise farmers' consciousness on safe use of herbicides.

Farmers who participated said the training was a 'life saving event.'

"Most of us spray herbicides without personal protective equipment and sometimes we use herbicides' containers for storing water or cooking oil. Through this training, we have discovered that these are wrong practices because empty containers of herbicides contaminate

either the water or cooking oil which affect our health," farmer Emmanuel Tur said.

"If I go home, I will tell my wife and other members of the community to properly dispose empty containers of herbicides," he added.

Another farmer, Rachel Olanipekun said the training demonstrated the must haves of any spray service provider.

"We have learnt how to protect ourselves and I thank IITA for training us. This training is an eye opener to all of us," she added.

Across the major cassava growing areas in Nigeria, the use of herbicides is growing with some states having up to 90 percent of farmers using herbicides, according to a survey from IITA. The rising use of herbicides is driven by inadequate personnel for manual labour.

"However, the switch to herbicides demands that farmers need training to effectively apply the products," according to Professor Friday Ekeleme, Principal Investigator with the IITA-CWMP.

"What the IITA-CWMP has set out to do is to promote integrated weed management options, combining mechanical, agronomy, and chemical weed control so that farmers are able to control weeds in a sustainable manner," he added.

Godwin Atser, Communication & Knowledge Exchange Expert for the Cassava Weed Management project said the feedback from participants was exciting.

"Through the training, we saw farmers making commitment in terms of behavioural change. This makes me happy," he said.

The trainings were implemented by IITA-CWMP, with support from NAFDAC, the National Root Crops Research Institute (NRCRI) Umudike; Federal University of Agriculture Abeokuta (FUNAAB), and the University of Agriculture Makurdi (UAM).



A practical session on calibration



Dr Mary Agada of the University of Agriculture Makurdi (right) taking a reflection session on safe use and application of herbicides in Benue state

This newsletter is produced by the Cassava Weed Management Project in collaboration with the ACAI and the BASICS projects. **Advisers:** Drs Bernard Vanlauwe, Alfred Dixon, Abdulai Jalloh, Hemant Nitturkar, and Friday Ekeleme.

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