



## African governments urged to tap opportunities on soybean

Increasing the use of soybean in diets has many nutritional benefits and will also create the needed demand to drive local production and boost farmers' income.

Researchers and soybean processors at two separate workshops organized by IITA and the National Soybean Research Laboratory (NSRL), University of Illinois, United States, in Abuja and Ibadan, said that expanding the consumption of the "golden bean" would have a positive impact on the nutrition of women and children in Africa.

"To tackle malnutrition, we need to promote the use and consumption of soybean," said Dr Kenton Dashiell, Deputy Director General for Partnerships and Capacity Development.

In Africa, malnutrition, particularly protein deficiency is widespread, and animal protein is, often times, too expensive for most populations.

Many legumes provide some protein, but soybean is the only available crop that provides an inexpensive and high-quality source of protein comparable to meat, poultry, and eggs.

Dr Dashiell said Africa needed to take advantage of the crop to drive sustainable development and agricultural transformation.



*Soybean is a rich source of protein and micronutrients.*

Dr Marilyn Nash, Program Coordinator, NRSL, described soybean as a "miracle bean" because of its high nutritional value.

She said that Nigeria has the potential of becoming a global leader in cultivating and processing soybeans.

Dr Gbassey Tarawali, head of IITA Abuja station, urged food manufacturers to harness the

potential of the crop.

"Africans only know about soybean production; we do not understand that soybean is an excellent source of micronutrients," he said.

Tarawali added that blending soybean with maize, millet, and sorghum is good for consumption. This can help increase the protein quality of the food consumed.

In Africa dry soybeans are used to produce milk substitutes and flour. The bean curd is fried and eaten as a snack or breakfast food.

Dr Gloria Elemo, Director-General, Federal Institute of Industrial Research (FIRO), Oshodi, said that the potential of this leguminous crop had not been fully realized in the country.

She explained that the crop could be made into many nutritious, ready-to-consume products as well as intermediate products.

Participants at the workshop called on African governments and in particular, Nigeria, to give the "miracle crop" priority under the agricultural transformation agenda. They believe that the nutritional value of soybean makes it an important crop, which governments should invest in to attain food security and raise the health standard of the people.



## Thank you, farmer tells IITA

In Africa, agriculture employs more than 70% of the people living in the rural areas. Because most people are born on the farmstead in the continent, traditional knowledge about farming is transferred from one generation to another. This makes almost everyone a farmer. Many people depend on this knowledge to practice agriculture—the result of which is poor yields and low incomes.

Farmer Akinola Amosun sought to break away from the traditional and embrace modern agriculture.

He got in touch with Dr Gbassey Tarawali, Cassava Value Chain Specialist (through DG Nteranya Sanginga), and his team who

*Farmer Amosun using a cassava planter in his farm, thanks to IITA.*

offered him technical skills on modern agriculture.

Today, Mr Amosun is a proud owner of a model farm in Agbowa, Ikorodu, Lagos.

In a note to IITA, Mr Amosun gave a big "thank you" to the Institute, saying that modernization of the farm is having a positive impact on his community. He currently plans to expand to other areas with primary focus on cassava.

Dr Tarawali expressed joy over the impact of IITA's work in the country, noting the positive effect on the lives of the people. He said this result is a demonstration of effective partnership.

Those who supported the project execution include Wilson Igbaifua, Olanrewaju Adetunji, and Festus.

## First generation pro-vitamin A-rich open-pollinated maize varieties released

The first generation of pro-vitamin A-rich orange open-pollinated maize varieties was released by the Institute for Agricultural Research (IAR) in Nigeria on 20 June. IITA, in partnership with IAR, developed these varieties using conventional breeding in a project funded by the HarvestPlus Challenge Program of CGIAR. The development of these varieties is part of strategies to prevent the prevalence of vitamin A deficiency.

These varieties were released by the National Variety Release Committee of Nigeria as Sammaz 38 and Sammaz 39 and are recognized as IITA synthetic PVASYN2 and PVASYN8. The pro-vitamin A-rich orange maize varieties are the product of more than eight years of development and testing of varieties formed from inbred lines with enhanced levels of pro-vitamin A. Other collaborating partners involved in testing include the Institute of Agricultural Research & Training (IAR&T), University of Maiduguri, and National Centre for Genetic Resources and Biotechnology (NACGRAB).



*Pro-vitamin A-rich maize.*

The HarvestPlus project works with the private sector and community-based seed producers in Nigeria to

speed up the process of production of good quality seeds of pro-vitamin A-rich varieties for smallholder farmers. The two varieties can supply increased vitamin A levels in the diets of millions of children, pregnant women, and nursing mothers who consume maize every day in various traditional forms and as local weaning food in Nigeria. These varieties are easy to multiply and disseminate and will provide not only increased levels of pro-vitamin A but also higher yields to farming communities.

The national food consumption and nutrition survey in Nigeria show that nearly 30% of children younger than five years suffer from the ravages of vitamin A deficiency along with 19% of pregnant women and 13% of nursing mothers living with a high risk of vitamin A deficiency.

These pro-vitamin A-rich maize varieties will contribute to preventing the adverse effects of deficient diets, particularly for women and children living in rural and urban centers that depend on maize as a major source of their sustenance.

## Study finds high share of food expenditures at expense of local food in selected West African countries

A study looking at the food consumption dynamics in West Africa shows that people are eating relatively more carbohydrates than protein and fats. It also found that the share of expenditure on food in the region is high, ranging from 39 and 60%.

Drs Mbaye Yade and Maurice Taondyande, IITA scientists, authored this study and presented their findings at the monthly Western Africa Hub seminar series in Ibadan.

The study covered Benin, Burkina Faso, Côte d'Ivoire, Ghana, Senegal, Mali, Niger, and Togo.

The researchers found that the increase in consumption of imported foods—rice and wheat—came at the expense of local foods. This trend, they said, is being driven primarily by urbanization. They noted that the shocks from the 2007–2008 food crises sparked the implementation of national intervention programs in several countries. These interventions have a positive impact, improving local production and slowing down the rate of rice importation in the region.

Based on the current outlook, the study projected import needs for wheat (100% of demand), rice and fish (50% of demand), cassava (15% of demand), and yam (10% of demand).

The cumulated or total rice consumption for West Africa between 2010 and 2020 is estimated at 55.4 million t with 13.7 for Côte d'Ivoire, 13.7 for Mali, 9.7 for Senegal, and 8.8 for Ghana.

For wheat, consumption between 2010 and 2020 is estimated at 18.9 million t with 5.2 for Ghana, 5.1 for Senegal, and 4.2 for Côte d'Ivoire.

For maize, consumption between

2010 and 2020 is estimated at 43.5 million t with 15.9 for Ghana, 8.1 for Mali, 7.9 for Burkina Faso, and 5.4 for Côte d'Ivoire and Togo. Projections do not include Senegal.

For millet/sorghum consumption between 2010 and 2020 is estimated at 95.6 million t with 40.4 for Niger, 25.3 for Burkina Faso, and 20.7 for Mali. Projections do not include Côte d'Ivoire and Ghana.



*West Africans are eating relatively more carbohydrates than protein and fats, IITA study shows.*