A stakeholders’ “Prioritization Workshop on African Yam Bean” was held on 18 May 2021 at the International Institute of Tropical Agriculture (IITA), Ibadan, physically and online through Microsoft Teams. The workshop was under the auspices of the Global Challenges Research Fund (GCRF, Bean preneurs) and the Cambridge-ALBORADA-supported projects: ‘Peas’n Chips Entrepreneurs: Rehabilitating African Yam Bean for Food Resilience and Soil Health in Nigeria’ and ‘Characterizing Tuber Development in African Yam Bean’, respectively. The multidisciplinary projects are a partnership among IITA, the University of Cambridge, and University of Ibadan, Nigeria.

Participants at the workshop were drawn from academia, farmers’ communities, hospitality industry, non-governmental organizations, private seed companies, and government agencies and ministries at federal and state levels. The workshop presented an opportunity for discussion on prospects for resuscitation of the African yam bean value chain.

The participants included representatives from the University of Ibadan, University of Cambridge, IITA, hospitality outfits, Federal Ministry of Agriculture and Rural Development personnel, Agricultural Development Program officers, technical and extension experts, selected farmers and their spouses from Oyo, Osun, Ekiti, and Delta states of Nigeria, current and potential entrepreneurs, and environmental scientists.

The workshop addressed issues hampering African yam bean (AYB) cultivation and production, seed production and storage, processing and utilization, policies and entrepreneurship and a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis was done to analyze and guide the adoption of African yam bean as a food security crop.

**OBSERVATIONS**

The workshop posited that African yam bean has a lot of potential for food and nutrition security but that it has lost its commercial, preference, and social values partly because of the introduction of fast-cooking varieties of cowpea. The workshop stressed that changing climate, increasing population, and declining arable land are real challenges that could be addressed by food diversity, and that AYB can help mitigate these challenges. However, national and international investments in development research, training, and awareness creation are grossly inadequate.
DECISIONS

The collaboration among the University of Ibadan, University of Cambridge, UK and IITA aims to create awareness about AYB while also conducting research to understand the biology of the crop for utilization and revitalization. IITA has thousands of AYB accessions in its Genetic Resources Center (genebank) that can be explored for improved utilization.

Climate change poses a significant risk to food security as temperatures rise, rainfall becomes more unpredictable, and patterns of disease and pest infestation change.

As part of efforts to maximize the versatile and diverse benefits of AYB as a reliable and sustainable food security crop in Nigeria, the Beanpreneur and ALBORADA projects have studied AYB biology and established that tuber formation proceeds from stem to hypocotyl, correlation between AYB bean and tuber yield was not significant, and high tuber producers also produce more nodules that enhance soil fertility.

Farmers, scientists, processors, marketers, entrepreneurs, and policy makers at the workshop agreed that AYB has the potential for filling food, nutrition, and livelihood gaps if policies are put in place to establish sustainable value chains and export market.

RECOMMENDATIONS

The workshop participants came up with the following recommendations:

1. Having identified long maturity period and slow rate of germination as major constraints to AYB production, the workshop advocated the development of improved varieties through the creation of AYB breeding programs in relevant research institutes to speed up its adoption.
2. The challenge of cultivating AYB as an intercrop with yam to take advantage of stakes made for yam vines can be overcome by developing non-climbing varieties.
3. Low awareness and acceptability of AYB compared to other commercial legumes can be tackled by organizing sensitization and promotional programs such as food exhibitions/food shows for stakeholders in food industries to prepare new products and recipes from tubers and bean flour from AYB. This should be supported with collection of traditional recipes of AYB for future utilization.
4. In addition to its cultivation as a food crop, AYB should be promoted as an industrial/commercial crop for use in the production of biopesticides, food
additives (condiments), animal feeds, etc. through provision of modern processing facilities for the export market.

5. Since AYB is a nodulating legume, it should be intercropped with other crops to help improve soil fertility, conserve soil moisture, and enhance crop yield.

6. To eliminate the associated drudgery in processing and encourage AYB’s adoption as food by the populace, funds and other resources for research on AYB need to be generated to set up an AYB value chain that covers options for diversifying utilization using modern equipment for production, processing, and marketing. Increased government investment on AYB research and value chain development is therefore recommended.

7. It is recognized that farmers are disadvantaged by lack of improved varieties. The development of a formal seed system for AYB is therefore considered as a priority.

8. Lack of protection of AYB against pests and diseases was identified as a potential threat to its production. Government should encourage and invest on promoting agronomists and plant health specialists to conduct more research on the crop.

9. It was acknowledged that available technical and indigenous knowledge about AYB is a strength that encourages its adoption as a food security crop. Government should establish innovative and versatile extension platforms to promote linkage between research and users.

10. Having recognized that limitation of AYB cultivation to only rainfed farming as a threat, government should provide farmers with irrigation facilities to mitigate the negative effects of climate change on its productivity.

11. To overcome the challenge of low awareness and utilization of AYB among the younger generation and the general populace, a strong advocacy and promotion program, incorporating variety naming in specific localities and communities, should be hinged on the health and utilization perspectives to avoid mix-ups with related crops.

Signed

Participants
Stakeholders’ Prioritization Workshop on African Yam Bean
18 May 2021
IITA Headquarters, Ibadan, Nigeria