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Participatory Evaluation of Cowpea (*Vigna unguiculata*) and Lablab (*Lablab purpureus*) for Vegetable Use in Eastern Africa

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Abstract

Traditional African vegetables have long been neglected in research and development and are at risk of genetic erosion because of the introduction of new vegetables to the region. In collaboration with The World Vegetable Center's Regional Center for Africa (AVRDC-RCA) located in Arusha, Tanzania, germplasm collections of cowpea (*Vigna unguiculata* (L.) Walp.) and lablab (*Lablab purpureus* (L.) Sweet) have been agronomically evaluated. However, for achieving the adoption of a new variety to be released, it is important not only to assess the yield potential, but also know the feelings, perceptions and preferences of farmers, extension workers and consumers at the early stage of developing that variety. The role of participatory selection is essential especially for new crops or new products from a known crop. In line with this concept, a participatory visual evaluation of a number of cowpea accessions was conducted in the fields of AVRDC-RCA, for assessing their suitability in making a meal from seed or leaf. Lablab accessions were evaluated in the same way for their suitability of leaves and pods as vegetable. Leaves of both cowpea and lablab as well as lablab pods were cooked and evaluated by farmers drawn from different districts of Arusha, Tanzania and extension workers from Malawi, Rwanda, Uganda and Tanzania. The preference probability at a given preference/taste level was calculated and showed that participants have ranked the available accessions differently for different traits of relevance as a vegetable. Spearman's rank correlation coefficient was calculated, but no correlation was found between traits assessed in cowpea or lablab accessions. This shows that farmers' and/or consumers' needs are diverse and suggest breeding to be performed separately for various traits, if economical. Otherwise, any new variety should be developed by accommodating the major traits of interest if multipurpose use is planned. In addition to identifying participants' needs, participatory evaluation was used as a tool to popularize lablab as a neglected crop with an immense potential as a vegetable.

Keywords: Cowpea, East Africa, *Lablab purpureus*, legume, participatory evaluation, vegetable