

## **Evaluation of Perceptions, Preferences and Quality of Peanut Seed in Ghana**

**J. ABOGOOM\***, R. AKROMAH, and R. AIDOO, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; D.L. JORDAN, W. FOOTE, and R.L. BRANDENBURG, North Carolina State University, Raleigh, NC 27695; and M. BALOTA, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061.

In Ghana, peanut is the largest leguminous crop cultivated and, the most important source of plant protein in the country. It is a major crop that contributes to food security and income generation in the country. It is cultivated by about 74% of households in Northern Savannah of Ghana, mainly as a support crop to augment the household's source of income. Despite the many benefits accrued from peanut and the recognition of its potential to reduce malnutrition and poverty in the country, estimates from Ministry of Food and Agriculture (MoFA) indicate a fluctuating trend of peanut production in the country with respect to both yield per hectare and area cultivated. Limited access to high quality seeds of improved varieties is one major constraint to high productivity of peanut. The awareness by farmers of various seed sources, quality of seeds from these sources and characteristics of available peanut varieties, will increase farmer's chances of using high quality seeds. This research will bring to light the quality status of peanut seeds that farmers in the country use for production. Moreover, analysis of genetic variations of peanut genotypes in the country together with the preferences and perceptions of farmers regarding seed quality will present information useful for crop improvement. Thus, the research seeks to evaluate seed quality attributes of peanut seeds obtained informally from farmer-saved, local seed markets and research institutions, as well as to assess farmers' perceptions and preferences of peanut seeds in relation to seed quality. The research will be conducted at Kwame Nkrumah University of Science and Technology (KNUST), Kumasi and the Crops Research Institute (CRI), Fumesua. Seeds will be collected from farmers, open seed markets from Northern, Upper East, Upper West, Bono East and Ashanti regions of Ghana, as well as from Crops Research Institute (CRI) and Savanna Agricultural Research Institute (SARI). Seed samples will be tested for seed moisture content, seed purity, seed viability and seed health following the ISTA testing rules. Morphological and molecular characterization will also be conducted using the peanut descriptor (IBPGR and ICISAT 1992) and Simple Sequence Repeats (SSR) markers respectively. A structured questionnaire will be administered to randomly selected farmers to assess their perceptions and preferences. On a five (5) Likert scale, farmers will score statements on perceptions and preferences based on their level of agreement or disagreement. It is expected that the quality status of farmer-saved seed lots, seeds obtained from local markets and research institutions for peanut production in Ghana would be known. Also, the perceptions of farmers about seed sources in relation to quality and their preferred seed sources would be known.