

were selected across the three northern regions of Ghana. Two major cowpea producing communities were randomly selected from a list of cowpea producing communities in these Districts, given a total of 10 communities. A total of 50 cowpea producers, consumers and traders were randomly selected for the study. Data was collected using two techniques; use of structured questionnaires and focus group discussion (FGD) to determine farmer's production constraints and their perception on drought and climate change in relation to cowpea production. Data was analysed using SPSS version 22. Kendall's Coefficient of Concordance statistical procedure was used to identify and rank a given set of constraints and farmer preferences. Seventy percent of the farmers preferred varieties with large grain size, smooth or rough textured seeds with white coats depending on the location, from the focus group discussions, 83.7% of farmers preferred varieties that were early and drought tolerant. Farmer involvement in the development of new varieties should be encouraged to enable easy adoption of improved varieties for cultivation.

Towards identifying novel sources of resistance to striga in pearl millet under natural field infestation

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Abstract

Pearl millet is an important major staple food for millions of people in Africa and Asia especially in the northern regions of Nigeria where it is consumed on daily basis in different forms. Its productivity has been severely hindered by various biotic and abiotic factors, such as Striga. Striga alone can result in yield losses of between 20 to 100% in severe cases. Breeding for resistance to this parasitic weed has been constrained due to limited source of resistance, therefore searching new sources of resistance from pearl millet germplasm is essential to facilitate progress in developing new varieties with farmers preferred traits. The present work was carried out to identify novel sources of resistance from adapted landraces and exotic germplasm for further use in breeding. Results have shown existence of pearl millet genotypes with good performance in terms of low to no Striga emergence and high yield which are important features associated with Striga resistance in Striga prone areas. This work lays the foundation for development of Striga resistant pearl millet varieties for northern savannah areas of Nigeria.
