



Farmers perception on production constraints, trait preference and variety selection of chickpea (*Cicer arietinum* L.) in Kenya

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Abstract

Chickpea (*Cicer arietinum* L.) production in Kenya is mainly practiced on a small scale and productivity per hectare is lower compared with the world average, despite its promotion in different regions. The chickpea adoption rate is also relatively slow, despite its benefits. This study investigated farmers' production constraints, preferred traits, and selection criteria for specific varieties to generate information that can assist in the development of new varieties, which can be more readily adopted by farmers. A participatory Rural Appraisal (PRA) through Focus Group Discussions (FGD) was conducted in Bomet and Embu counties of Kenya. The direct ranking was used to identify farmers' constraints to chickpea production, preferred traits, and specific chickpea varieties based on preference. The collected data was analysed using Statistical Package for the Social Sciences (SPSS) software. Farmers' responses indicated that the major production constraints were pests and disease infestations, drought, lack of early-maturing varieties, lack of market, and lack of information on chickpea production and utilization. The farmers reported that they preferred ICCV 97105, ICCV 92944, and ICCV 00108 due to high yielding, drought tolerant, early maturing, and pest and disease resistance. Farmers in both counties also had a higher preference for *Desi* than *Kabuli* chickpea types because of tolerance to drought and disease resistance and that its testa does not peel off when cooked. This study revealed farmer-preferred traits in varieties they would want to grow. Breeders should aim at developing varieties with multiple traits for increased chickpea adoption and production in Kenya.

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