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Stakeholders' Perception and Preferences of Post-Harvest Quality Traits of Tomato (*Solanum lycopersicum*) in Ghana

MICHAEL KWABENA OSEI^{1,2}, DANQUAH AGYEMANG¹, ESSI BLAY¹, ERIC YIRENKYI DANQUAH¹,
HANS ADU-DAPAAH²

¹University of Ghana, West Africa Centre for Crop Improvement, Ghana

²CSIR-Crops Research Institute, Ghana

Abstract

The high levels of tomato consumption coupled with wide production levels in Ghana make the crop economically viable. Food preferences vary among individuals and geographical locations. Traits to select during crop improvement therefore, depend on the target beneficiaries. Breeders sometimes fail to consider preferences of end users probably because they are oblivious of them. This study used Participatory Rural Appraisal (PRA) and surveys to identify preferences and perceptions of end users in tomato value chain, for making proper breeding choices according to the information collected. The strategy employed for this research was descriptive survey. The target population included tomato farmers, market players and consumers. A multi-stage sampling was used to select the study sample. More than half (57.3 %) of the respondents had been involved in tomato production for over 10 years. Sixteen variables were discussed with each group. The first three principal components (PCs) with Eigen values greater than 1.0 together explained 100 % of total variation in the data set. Scores for ranking popular vegetable and ranking causes for poor shelf life were not significantly associated with any of the components. The Focus Group Discussion (FGDs) also established that, seven main vegetable crops were cultivated and produced by the communities and ranked tomato as number one. Similarly, six important quality traits of tomato were mentioned by stakeholders as their favorite. Respondents showed extreme preferences for firmness and shelf life as the most important quality traits of tomato. Seventy-seven-point five percent (77.5 %) of the consumers use tomatoes every day in their food preparation. The study revealed stakeholders' desire and plea for firmness and extended shelf life of tomato fruits in Ghana. Consequently, the survey validated the need to regulate tomato breeding goals to develop high yielding tomatoes with improved fruit quality and prolonged shelf life.

Keywords: Descriptive study, FGD, Post-harvest traits, PRA, tomato