

RELATING VARIETY RANKS ON CRITERIA RANKINGS BY MEN AND WOMEN

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Participatory variety selection on-farm trials involving men and women farmers ranking 9 maize varieties as well as identifying and ranking selection criteria and maize production constraints were carried out in the semi-arid parts of Kenya. The study was carried out in Makueni and Machakos Districts of Kenya using mother-baby trials with each district having two mothers (full trials). For each district, the 9 maize varieties were allocated to the babies (farmers) randomly using ordinary cyclic design, each farmer receiving 4 varieties, blocked by farmers. Data on selection criteria and other covariates were collected from participating farmers. However, due to draught, most of the crops failed at the tasseling stage and no harvest data was collected. Thus out of the 72 participating farmers, only 14 farmers ranked the varieties, ranks based on data collected up to tasseling stage. One important aspect is to find out how the variety ranks relate to the selection criteria. This paper focuses on modeling of the variety ranks and criteria rankings from the baby trials with the applications of Bradley-Terry models and extensions. Due to insufficient data, predictions on farmers' preferred varieties based on the criteria rankings was not extensively done.