
Performance of Cowpea (*Vigna Unguiculata* L. Walp) varieties intercropped into maize (*Zea Mays* L.) under different planting patterns: yields and yields attributes.

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Abstract

*The main objective of the present investigation was to determine the yield and yield attributes of cowpea (*Vigna unguiculata* L. Walp) varieties intercropped into maize (*Zea mays* L) under different planting patterns. The treatments tested consisted of factorial combinations of six improved cowpea varieties, namely, SAMPEA-2, SAMPEA-4, SAMPEA-5, IAR-1035, IAR-1074, and IT90K-277-2 which were intercropped with maize variety, TZPBSR in three different planting patterns, namely, 1row maize: 1row cowpea in mixed-rows, 1row maize: 1row cowpea alternate rows and 1row maize: 4 rows cowpea: 1 row maize in alternate rows. The treatments were laid out in a randomized complete block design in a split plot arrangement with three replications. The planting pattern was assigned to the main plot while the variety was assigned to the sub-plot. The result indicated that most of the yield parameters of maize were not significantly ($P > 0.05$) affected by cowpea varieties. There were higher grain yield from variety SAMPEA-2 while variety IAR-1035 produced the lowest yield. Planting pattern affected yield components of cowpea significantly ($P > 0.05$) in both 2005 and 2006 with the 1M: 4C: 1M alternate planting pattern having higher values compared with either 1M: 1C alternate or 1M: 1C mixed-row planting pattern. In maize, the 1M: 1C mixed-row planting pattern produced significantly ($P > 0.05$) higher maize grain yield than the 1M: 4C:1M alternate and 1M: 1C alternate planting patterns by averages of 139.8 and 21.9% respectively. The study showed considerable variations among cowpea varieties in their performance in the maize intercrop.*
