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, 1 row maize: 1 row cowpea in mixed rows, 1 row maize: 1 row cowpea alternate rows and 1 row 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.