

RELATIVE TIME OF PLANTING AND SPATIAL ARRANGEMENT FOR SOYBEAN/MAIZE INTERCROPPING IN FOREST-SAVANNAH ECO-CLIMATIC ZONE OF NIGERIA

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ABSTRACT

The relative planting time and spatial arrangement for intercropped soybean/maize in forest savannah eco-climatic zone was investigated in this study. In an attempt determine the best planting date and spatial arrangement for the intercrop, two spatial arrangements: soybean in alternate rows with maize and double rows of soybean between double rows of maize and seven relative planting times of planting the component crop (planting of soybean 30, 20 and 10 days after maize, simultaneous and planting soybean, 30, 20, 10 days before maize). Each plot measured 6.5m x 7.5m on randomized complete block design in a 2x7 factorial with 2 sole crops. The yield characteristics (pods/plant, seed/pod and grain yield) decreased with delayed planting for intercropped soybean planted after maize, while it increases with delayed planting with intercropped soybean planted before maize. Intercropped maize yield were significantly higher when planted before soybean. Double rows of soybean and single rows of maize arrangement showed lower yield than alternating rows maize and soybean arrangement. Soybean/maize intercropping in alternate rows could be recommended as more productive, sustainable and alternative to growing maize or soybean as monocrops in forest savannah eco-climatic region of Nigeria

KEYWORDS: Planting Time, Spatial Arrangement, Soybean/Maize-Intercropping, Sustainable Farming System, Optimum Yield