INFLUENCE OF INCREASING SUPPLY OF NITROGEN ON COTTON-LEGUME INTERCROPPING SYSTEMS

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ABSTRACT

A field study was conducted to determine the influence of four N levels i.e., 0, 60, 120, 180 kg ha^{-1} on four cotton-legume intercropping systems. The results showed that all the intercropping systems responded significantly to N fertilization and produced maximum harvests at 120 kg N ha^{-1}. Compared to monoculture cotton, the highest and significant yield produced by cotton + mungbean system was statistically parallel to cotton + blackgram but different from cotton + pigeonpeas system. Both components of the intercropping systems behaved differently to the applied fertilizer nitrogen. Under the intercropping systems studied, cotton produced higher yields upto 120 kg N ha^{-1}, whereas legumes especially pigeonpeas performed efficiently upto the supply of fertilizer N at 180 kg ha^{-1}.

Key Words: Intercropping systems, cotton, legumes, fertilizer nitrogen