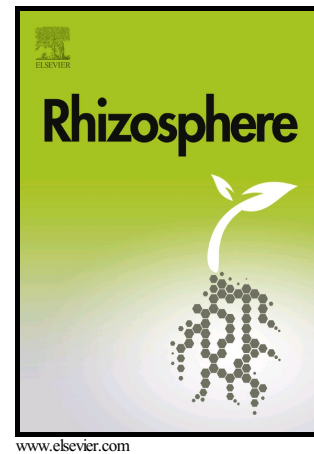


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***Rhizobium* inoculation reduces P and K fertilization requirement in corn-soybean
intercropping**

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Abstract

The field experiment was carried out at Tanzania Coffee Research Institute (TaCRI) for two consecutive years to assess the effects of *Rhizobium* inoculation, supplemented with phosphorus and potassium on nutrient uptake in soybean intercropped with maize. The experiment was laid out in split-split plot design with 2x4x7 factorial arrangement replicated thrice. The main plots had two rhizobial inoculation treatments, while the sub plots were comprised of four cropping systems: Maize (sole-crop), Soybean (sole-crop) and two intercropping at different soybean spacing (75 x 20 and 75 x 40 cm). The sub-subplots were assigned to fertilizer levels (kg ha⁻¹): control; 20K; 40K; 26P; 52P; 26P + 20K; 52P + 40K. The statistical analysis was performed using ANOVA. The fisher's L.S.D. was used to compare treatment means at $p=0.05$ level of significance. The results indicated that soybean pure-stand significantly improved the uptake of Mg over the soybean under intercropping systems for the two cropping seasons. The uptake of Fe increased in intercropped soybean for

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