Biomass and P Uptake by Pigeonpea Varieties in Georgia, USA. (A08-potter130609-Poster)

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Abstract:

Pulses are market and non-market crops which enhance soil fertility and have been cultivated as protein sources under low input agriculture. Among these, pigeonpea (Cajanus cajan (L.) Millispaugh) is the fifth most important crop and second in protein content. A field experiment was conducted near Watkinsville, GA to evaluate above ground production and P uptake of seven diverse genotypes of pigeonpea in the summers of 2000 and 2001. Pigeonpea varieties were two selected for release in Georgia by Univ. of GA Experiment Stations (Georgia 1 and Georgia 2), two developed and released in Brazil by EMBRAPA (Brazil 1 and Brazil 2), and three obtained from ICRISAT (ICP1529, ICP5026 and ICP 7118). Soil (Fine, kaolinitic, thermic Typic Kanhapludults) P at the start of the experiment averaged 2.5 mg/kg (Mehlich I). No fertilizer was applied. Seeds were inoculated with Rhizobium. Experimental design was a randomized complete block with 3 replicates. Brazil 2 had the greatest biomass production and P uptake in 2000 compared to the other 6 varieties. Herbivory by grasshoppers was severe in 2001, and varied greatly among the genotypes. Data on biomass production and P uptake will be presented.

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