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## Effect of Dual Inoculation of Arbuscular Mycorrhiza and *Rhizobium* on the Chlorophyll, Nitrogen and Phosphorus Contents of Pigeon Pea (*Cajanus cajan* L.)

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### ABSTRACT

The pot experiments were conducted in the Department of Life Science and Bioinformatics of Assam University, Silchar. The aim of the present study was to investigate the effect of dual inoculation of Arbuscular mycorrhiza (AM) (*Glomus fasciculatum*) and *Rhizobium* on the chlorophyll, nitrogen and phosphorus contents of pigeon pea (*Cajanus cajan* L.). The results revealed an overall increase in chlorophyll, nitrogen and phosphorus contents in the inoculated plants than uninoculated ones. Maximum chlorophyll contents were recorded in the plants dually inoculated with *Glomus fasciculatum* and *Rhizobium*. The combined application of *Glomus fasciculatum* and *Rhizobium* also remarkably increased the nitrogen and phosphorus contents of pigeon pea. The dual inoculation with microsymbionts revealed synergistic effect. The results suggest that dual inoculation of *Glomus fasciculatum* and *Rhizobium* have the potential to enhance the chlorophyll, nitrogen and phosphorus contents of pigeon pea.

### KEYWORDS

*Glomus fasciculatum*; *Rhizobium*; Dual Inoculation; Chlorophyll; Nitrogen; Phosphorus

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