Abstract

The aim of the present investigation is to study the diversity of VAM fungi associated with the rhizospheric soil of pigeon pea (*Cajanus cajan* L.), one of the most important pulse crops grown in Barak valley. The results revealed variation in VAM spore population, root colonization and number of VAM fungal species in different sampling months. Maximum spore population and number of VAM fungal species was recorded in the month of July (rainy season) and minimum were recorded in the month of January (winter). All together twenty nine different VAM fungal species belonging to four genera viz., *Glomus, Gigaspora, Acaulospora* and *Scutellospora* were characterized. They showed variable distribution pattern. It was observed that *Glomus* was the most dominant genus in the rhizospheric soil of pigeon pea. *Glomus aggregatum, Glomus fasciculatum* and *Acaulospora scrobiculata* were detected in all the sampling months.

**Keywords:** Rhizospheric soil, diversity, spore population, root colonization, VAM fungi