



Detection of *Bradyrhizobium* spp. and *B. japonicum* in Thailand by primer-based technology and direct DNA extraction

N. Teaumroong* and N. Boonkerd

School of Biotechnology, Suranaree University of Technology, Nakhon-Ratchasima, 30000 Thailand

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Abstract

Total chromosomal DNAs from 20 *Bradyrhizobium* spp. strains (10 strains isolated from *Vigna radiata* and 10 from *Arachis hypogaea*) and 18 *B. japonicum* strains isolated from *Glycine max* were extracted. These DNAs served as templates for REP, ERIC and RAPD primers in PCR analyses. The patterns of the resulting PCR products were analyzed and highly specific for each strain, especially when grouped together with their antibiotic-resistance profiles. A method for extracting DNA directly from soil was developed. Recovery was approximately 30 μg DNA g^{-1} soil and the procedure yielded DNA suitable for PCR amplification.