

Identification of *Tinospora cordifolia* (Willd.) Miers ex Hook F. & Thomas Using RAPD Markers

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Identified germplasm is an important component for efficient and effective management of plant genetic resources. Traditionally, plant identification has relied on morphological characters like growth habit, floral morphology like flower colour and other characteristics of the plant. Studies were undertaken for identification and genetic variation within 15 clones of *Tinospora cordifolia* through random amplified polymorphic DNA (RAPD) markers. Analysis was made using forty decamer primers. Out of them, 15 primers were selected and used for identification and genetic relationships within 15 clones. A total of 138 distinct DNA fragments ranging from 0.2 to 3.2 kb were amplified using 15 selected random primers. The genetic similarity was evaluated on the basis of presence or absence of bands. The genetic distance was very close within the clones. Thus, these RAPD markers have the potential for identification of species and characterization of genetic variation within the population. This study will be helpful to know the genetic background of the medicinal plants with high commercial value, and also provides a major input into conservation biology.

Key words: DNA Fingerprinting, Medicinal Plant, RAPD Marker