Original Research

Background: Plant Molecular Biology

Topic: "Morphological and Molecular Diversity analysis of different *Ficus* species"

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Abstract

Background: For the first time the genus *Ficus* was introduced by Linnaeus (1753). *Ficus* is the Latin word which was derived from the Indian 'Fag' from which come the Italian, Portuguese and the Spanish 'Figs', the French 'Figsee' and the German 'Feigen' and the Dutch 'Rijig' . The genus *Ficus* includes about 850 species of woody trees, shrubs, vine, epiphytes and epiphytes of Hemi of the Moraceae family. Fig cultivars are mainly diploid (2n = 26), although there are triploids (2n = 39) of both grown and wild types. Communally these plants are known as fig trees or figs.

Methods: The present investigation entitled "Morphological and Molecular Diversity analysis of different *Ficus* species" was carried out at the Forest Biotechnology Laboratory, College of Forestry, Navsari Agricultural University, Navsari. The methods employed includes DNA Extraction using CTAB method, Polymerase Chain Reaction given by Williams, Statistical analysis.

Result: The different *Ficus* species studied were *Ficus benghalensis, Ficus religiosa, Ficus racemosa, Ficus krishnae, Ficus pumila, Ficus mysorensis, Ficus hispida, Ficus amplissima, Ficus longifolia*, *Ficus benjamina*. The study was undertaken with the objective morphological and molecular profiling and diversity analysis of 10 different *Ficus* species with RAPD markers. Figs are principal species in many tropical forest ecosystems.

Conclusion: The morphological identification through different morphological characteristics and genotypic identification through molecular markers resulted in highly diversify dendrogram of 10 *Ficus* species. The information gathered here would be helpful for genome mapping studies.

References:

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3. Somashekhar, Metri & Nayeem, Nazmul & AR, Mahesh. (2013). BOTANICAL STUDY OF FOUR FICUS SPECIES OF FAMILY MORACEAE: A REVIEW.
4. Williams JG, Kubelik AR, Livak KJ, Rafalski JA, Tingey SV. DNA polymorphisms amplified by arbitrary primers are useful as genetic markers. Nucleic Acids Research. 1990; 18(22):6531-6535.