

***Cannabis sativa* L. — Botanical Problems and Molecular Approaches in Forensic Investigations**

REFERENCE: Siniscalco Gigliano G: *Cannabis sativa* L. — Botanical problems and molecular approaches in forensic investigations; *Forensic Sci Rev* 13:1–17; 2001.

ABSTRACT: An overview on legal regulation, taxonomy, and botanical and chemical methods of analysis of marijuana are provided. Emphases are placed on the applications of the recently developed molecular biology methods to the identification and characterization of marijuana samples. Procedures for the extraction of plant DNA, DNA amplification, restriction analysis, and sequence analysis are reviewed. The sequence analyses of the ITS1 and ITS2 of the n-rDNA [88,94]; the sequence of the *trnL* intron [95] and of the intergenic spacer between the *trnL* 3' exon and *trnF* gene of the cpDNA [56]; the RAPDs [26,34,89]; and the RFLPs [87,91,93] have been the most useful.

KEY WORDS: *Cannabis sativa*, cp-DNA, forensic plant identification, hemp, internal transcribed spacers, marijuana, *trnL* (UAA) intron, *trnF*.
