

**RAPID DETECTION OF BANANA BUNCHY TOP VIRUS
(BBTV) AND STUDY ON GENOMIC VARIABILITY IN
LOCAL BANANA CULTIVARS USING POLYMERASE
CHAIN REACTION (PCR) TECHNIQUE**

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Abstract

Polymerase chain reaction was employed for early and rapid detection of banana bunchy top virus (BBTV) from symptomatically confirmed BBTV infected leaf samples, collected from number of regions in Sri Lanka. Two different methods i.e. cetyl try methyl ammonium bromide extraction method and leaf soak extraction method were employed for the extraction of total nucleic acid of BBTV and BBTV specific primers BBT-1 and BBT-2 were utilized for the amplification of BBTV genome.

Results indicated that, PCR is a rapid and reliable method for detection of BBTV. Furthermore, leaf soak extraction method identified as rapid, less expensive and convenient method for extraction of total nucleic acid of BBTV for PCR.

Symptom expression was used to make the initial strain differentiation of BBTV strains. This helps to categorized BBTV strains into three groups namely severe, moderate and mild.

Genome variability of BBTV was further studied through the PCR amplification pattern and intensity of PCR reaction. Results of the analysis indicated the existence of the different strains of BBTV in Sri Lanka.