

DNA BARCODE TO CONFIRM IDENTIFICATION OF MORPHOLOGICALLY VARIANTS OF *JASMINUM SAMBAC*

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ABSTRACT

Jasminum, is a genus of vines and shrubs in the olive (Oleaceae) family. It has been cultivated and widely use now due to its unique properties. Jasmine able to process become jasmine tea, jasmine syrup, essential oil and use as perfume. Different species of *Jasmines* have different uses, and hence it is important to identify that the correct *Jasmine* has been used for example in tea. This cannot be done using morphology, hence i use DNA. In this experiment, sufficient DNA was extracted and sequencing. The method based on short DNA sequence for species identification is known as DNA barcoding. Edward's buffer solution was used to extract DNA in the experiment. The DNA extracted from the samples was quantified using spectrophotometer. However, the absorbance reading was not satisfactory. The DNA samples were then PCR amplified for *matK* and *rbcL* gene sequences. The genomic DNA and the PCR products were analyzed by gel electrophoresis. The results showed intense bands observed on the gel. The PCR products were subjected to sequencing and the sequences were compared with database (GenBank). The BLAST results showed *Jasminum sambac* sequences had percentage of similarity within 95% to 100% compared to GenBank. At the end of experiment, *Jasminum sambac* varieties were successfully identified at species level.