

## **ROOM TEMPERATURE EXPOSURE EFFECT OF DNA QUALITY FROM THE BITEMARK ON MALANG APPLE USING DNA ANALYSIS**

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Bitemark analysis has been done by looking at the peculiarities and characteristics of tooth formation of physical evidence that is then compared with the teeth of suspects to find the person who left a trace of bitemark. It is hard to solve because it is often subjective and depends on the experience and the procedures used by odontologist. Hence, saliva contains DNA, now it begins to be considered that saliva deposited during biting can be used as an alternative way of bitemark analysis. Earlier study on this subject by Andriyani, Novita, drg., had been proved that the isolation of human DNA from a bitemark on Malang apple (Paynes malus) is positive can be used as a forensic identification material. This next study is continuing analysis of human DNA from bitemark at Malang apple in 3 different times (day 1<sup>st</sup>, day 7<sup>th</sup> and day 14<sup>th</sup>), with a sample of 27 apples. Deposites saliva on the bitemark is taken with the double swab technique. DNA isolation is performed by using the DNA-zol method. After the isolation process, measurement of DNA content and purity is performed. Six of the 27 samples are obtained to meet the requirements to do typing (highest and lowest levels and purity in each different times). The 6 samples then were performed PCR amplification using locus CSF1PO, THO1 and TPOX. Visualization of electrophoresis showed that the DNA sample was detected by the three locus. It can be seen from the presence of DNA band in the samples of apple day 1<sup>st</sup>, apple day 7<sup>th</sup> and apple day 14<sup>th</sup> for each locus. Thus, isolation of human DNA from the bitemark on the Malang apple (Paynes mallus) can be used as a forensic identification material until day 14<sup>th</sup> examination.

Keyword : DNA Isolation, Bitemark, Apple, DNA analysis, room temperature exposure