



GENETIC DIVERSITY OF *MELISSA OFFICINALIS* BASED ON SRAP MARKER

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Melissa officinalis L. (Lemon Balm) belongs to lamiaceae family is a medicinal plant native to East Mediterranean regions. Essential oil of the plant has Antioxidant, Anticancer properties and expectorant capacity (1, 2). Sequence related amplified polymorphism (SRAP) markers are new to amplify the sequence open reading frame (ORF) by PCR (1, 2). This technique uses a combination of primers, for amplifying ORF regions. In this study, SRAP marker with using 10 combine markers was used to evaluate genetic diversity of 20 different *Melissa officinalis* accessions. The results showed a total of 144 bands that 131 bands were polymorphism. The greatest number of bands was related to me3-em3 marker. Cluster analysis using the un-weighted pair-group method with arithmetic averages (UPGMA) produced three groups between these accessions. The genetic similarity was between 0.54 to 0.90 ranges. The average information polymorphism for these markers was 0.90, which indicated high level of genetic diversity. All of the SRAP markers have showed high polymorphism between these accessions.

References

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