

UJI KUALITAS, FENOLIK DAN KANDUNGAN SENYAWA KIMIA MADU LEBAH *Trigona laeviceps* PADA BEBERAPA LOKASI DI YOGYAKARTA

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INTISARI

Madu dari jenis lebah *Trigona laeviceps* merupakan salah satu jenis madu yang diminati masyarakat sebagai salah satu suplemen kesehatan untuk menjaga ketahanan tubuh. Yogyakarta memiliki banyak lokasi budidaya lebah *Trigona laeviceps* yang tersebar di wilayah Yogyakarta. Data mengenai kualitas madu klanceng yang dihasilkan di Yogyakarta sendiri masih terbatas, sehingga dilakukan penelitian kualitas madu lebah *Trigona laeviceps* di Yogyakarta. Penelitian ini mengambil tiga kabupaten sebagai tempat pengambilan sampel yaitu di Kabupaten Sleman, Bantul dan Gunungkidul. Penelitian menggunakan Rancangan Acak Lengkap atau CRD (*Completely Randomized Design*) dengan faktor tunggal yaitu perbedaan lokasi pengambilan sampel madu. Madu diuji berdasarkan 7 kriteria persyaratan mutu madu terdiri dari uji organoleptik berupa rasa, warna dan bau serta uji laboratoris berupa pengujian gula pereduksi, sukrosa, gula total, keasaman, kadar air, dan baume. Dilakukan juga pengujian fenolik dan kandungan senyawa kimia pada madu. Hasil penelitian menunjukkan bahwa Madu Bantul (M1), Madu Sleman (M2), dan Madu Gunungkidul (M3) memenuhi 4 kriteria persyaratan mutu madu yaitu pengujian gula pereduksi, keasaman, bau, dan rasa. Pengujian GC-MS menunjukkan bahwa Madu M1 dan M3 memiliki komponen penyusun utama yaitu HMF, sedangkan Madu M2 memiliki komponen penyusun utama yaitu furanon. Pengujian Fenolik menunjukkan bahwa kadar total senyawa fenolat pada Madu M1 sebesar 1,450 mg GAE/g, Madu M2 sebesar 1,309 mg GAE/g, sedangkan Madu M3 sebesar 1,326 mg GAE/g.

Kata Kunci : Madu, *Trigona laeviceps*, Uji Kualitas, Fenolik, Kandungan Senyawa Kimia.

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QUALITY ANALYSIS, PHENOLIC AND CHEMICAL COMPOUND OF *Trigona laeviceps* HONEY AT SEVERAL LOCATION IN YOGYAKARTA

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ABSTRACT

Honey from the bee *Trigona laeviceps* is one type of honey that is in demand by the public as a health supplement to maintain body resistance. Yogyakarta has many locations for *Trigona laeviceps* beekeeping spread across the Yogyakarta area. Data about the quality of the honey produced in Yogyakarta is still limited, therefore it is necessary to conduct research on the quality of *Trigona laeviceps* honey in Yogyakarta. In this study samples were obtained from Bantul, Sleman and Gunungkidul Regencies. The study used a completely randomized design or CRD with a single factor, namely the selection of the honey sampling location. Honey was tested based on 7 criteria of honey quality requirements consisting of organoleptic tests in the form of taste, color and smell as well as laboratory tests in the form of reducing sugars testing, sucrose, total sugar, acidity, water content, and baume. Also tested for phenolic and the chemical compound of honey. The results showed that Bantul Honey (M1), Sleman Honey (M2), and Gunungkidul Honey (M3) met 4 criteria for honey quality requirements, namely testing for reducing sugar, acidity, smell, and taste. GC-MS testing showed that M1 and M3 Honey had the main constituent component, namely HMF, while M2 Honey had the main constituent component, namely furanone. Phenolic testing showed that the total content of phenolic compounds in M1 honey was 1.450 mg GAE/g, M2 honey was 1.309 mg GAE/g, while M3 honey was 1.326 mg GAE/g.

Keywords : Honey, *Trigona laeviceps*, Quality Analysis, Phenolic, Chemical Compound.

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