

KARAKTERISASI SIFAT FISIKOKIMIA DAN UJI AKTIVITAS ENZIM

DIASTASE PRODUK MADU HUTAN ASAL PULAU

NUSAKAMBANGAN CILACAP

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ABSTRAK

Madu merupakan cairan alami dengan rasa manis, kental dan berwarna emas sampai coklat gelap yang dihasilkan oleh lebah madu. Madu banyak dimanfaatkan oleh masyarakat terutama dalam bidang pengobatan. Sifat fisikokimia, kadar gula pereduksi dan aktivitas enzim diastase merupakan suatu penunjang untuk mengetahui kualitas suatu madu. Kualitas madu yang baik harus memenuhi kriteria Standar Nasional Indonesia (SNI). Penelitian ini bertujuan untuk mengetahui sifat fisikokimia, kadar gula pereduksi, dan aktivitas enzim diastase produk madu hutan yang diambil dari Pulau Nusakambangan Kabupaten Cilacap. Metode penelitian ini menggunakan *Single Subject Research*, dimana parameter pengujiannya meliputi kadar air, viskositas, keasaman, kadar gula pereduksi, dan *diastase number* (DN) yang mengacu pada Standar Nasional Indonesia (SNI). Hasil penelitian ini menunjukkan bahwa semua sampel memiliki pH yang memenuhi standar SNI, madu putut memiliki pH 4,40, madu gedangan memiliki pH 3,86, madu tolok memiliki pH 4,06. Sedangkan pada kadar air, viskositas, dan kadar gula pereduksi dari ketiga sampel madu belum memenuhi standar SNI, madu putut, madu gedangan, madu tolok memiliki kadar air masing-masing yaitu 26 %, 24 %, 26%. Memiliki viskositas masing-masing yaitu 7,037 poise, 8,660 poise, 6,349 poise. Memiliki kadar gula pereduksi masing-masing yaitu 58,89 %, 63,63 %, 58, 56 %. Pada pengujian aktivitas diastase didapatkan hasil bahwa madu putut dan madu tolok memiliki aktivitas diastase yang memenuhi standar SNI yaitu masing-masing sebesar 89,76 DN dan -2,88 DN, sedangkan untuk madu gedangan tidak memiliki aktivitas diastase. Berdasarkan hasil skrining fitokimia pada ketiga sampel madu hutan Nusakambangan dapat disimpulkan bahwa madu putut mengandung alkaloid dan steroid, madu gedangan mengandung alkaloid dan steroid, madu tolok mengandung alkaloid.

Kata Kunci : Madu, enzim diastase, hutan Nusakambangan

**CHARACTERIZATION OF PHYSICOCHEMICAL PROPERTIES AND
TEST OF ENZYME ACTIVITY OF FOREST HONEY PRODUCTS FROM
NUSAKAMBANGAN ISLAND CILACAP**

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ABSTRACT

Honey is a natural liquid with a sweet, thick and golden to dark brown taste produced by honeybees. Honey is widely used by the community, especially in the field of medicine. The physicochemical properties, reducing sugar levels and the activity of the enzyme diastase is a support to find out the quality of a honey. Good quality honey must meet the criteria of the Indonesian National Standard (SNI). This study aims to find out the physicochemical properties, reducing sugar levels, and enzyme activity of forest honey products taken from Nusakambangan Island, Cilacap Regency. This research method uses Single Subject Research, where the testing parameters include water content, viscosity, acidity, reducing sugar levels, and diastase number (DN) which refers to the Indonesian National Standard (SNI). The results of this study showed that all samples had a pH that met the SNI standard, putut honey had a pH of 4.40, gedangan honey had a pH of 3.86, tolok honey had a pH of 4.06. Meanwhile, the water content, viscosity, and reducing sugar content of the three honey samples have not met the SNI standard, putut honey, gedangan honey, tolok honey have their respective water content of 26%, 24%, 26%. It has a viscosity of 7,037 poise, 8,660 poise, 6,349 poise, respectively. It has a reducing sugar content of 58.89%, 63.63%, 58.56%, respectively. In testing diastase activities, it was found that putut honey and tolok honey have diastase activities that meet SNI standards, namely 89.76 DN and - 2.88 DN, respectively, while for gedangan honey, they do not have diastase activity. Based on the results of phytochemical screening on the three samples of Nusakambangan forest honey, it can be concluded that putut honey contains alkaloids and steroids, gedangan honey contains alkaloids and steroids, tolok honey contains alkaloids.

Keywords : *Honey, diastase enzyme, Nusakambangan forest*