



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## Composition of Honeys Collected from Eastern and South-Eastern Anatolia and Effect of Storage on Hydroxymethylfurfural Content and Diastase Activity

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**Abstract:** The chemical composition of honeys produced in Eastern and South-Eastern Anatolia (Turkey) was studied. For this aim, the composition of 45 honey samples collected from the mentioned regions and the effect of one year storage ( $20 \pm 5^\circ\text{C}$ ) on the diastase activity and hydroxymethylfurfural (HMF) content were determined. Compositional data measured in the fresh honeys were HMF, diastase number, moisture, invert sugar, sucrose, ash, proline, pH, free acid and lactone. Average values were as follows: HMF  $3.3 \text{ mg kg}^{-1}$ , diastase number 14.6, moisture 16.0%, invert sugar 70.3%, sucrose 1.8%, ash 0.1%, proline  $53.0 \text{ mg/100g}$ ; pH 3.8, free acid  $22.3 \text{ meq kg}^{-1}$  and lactone  $7.4 \text{ meq kg}^{-1}$ . The changes in HMF content and diastase number of the samples after one year storage ( $20 \pm 5^\circ\text{C}$ ) were also investigated. The average HMF content ( $\text{mg kg}^{-1}$ ) increased from 3.3 to 19.1, and the average diastase number decreased from 14.6 to 10.7 following one year storage. The results indicate that storage has a significant role in the increase HMF contents and the decrease in diastase numbers, and changes in these two parameters were statistically significant ( $P < 0.001$ ).

**Key Words:** honey, composition, storage, HMF, diastase number

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