ABSTRACT

EFFECTS ON NUMBER OF DIASTASE AND HYDROXYMETHYLFURFURAL OF HEAT TREATMENT AND WAITING PERIOD IN THE HONEYDEW AND HAYIT HONEY PRODUCED IN THE AEGEAN REGION

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This study is conducted in order to define hayit honey which is produced in Aegean Region according to the standards of TSE and determine the general qualities of region's honeydew with respect to different analytical parameters. Moreover, in this research two most important factors that determine the qualities of honey 5-HMF and diastase enzyme levels of honeydew and hayit honey, which are important type of honey for region and our country, during the steps after harvesting honey which are storage, processing, packaging; holding and thermal processing applications are investigated.

In this study, hayit honey were obtained from six different beekeepers, similarly honeydew were also obtained from six different beekeepers in the Aegean region. All the honey samples were analyzed in Denizli Provincial Control Laboratory. From the result of, It was determined in the hayit honey average pH 3,75±0.033, brix 82,09±0.07, humidity % 15.95±0.040, 5-HMF 9.96±0.098 mg/kg, diastase 21.77±0.208, glucose %33.23±0.729, fructose % 40.53±0.281, invert sugar (glucose+fructose) %73.961±0.651, fructose /glucose 1,223±0,025, ash % 0.220±0.006, free acidity 26,561±0.3 meq/kg, electrical conductivity 0,423 ± 0.001 mS/cm-1, respectively. Also it was determined in the honeydew as ,pH 4.041±0.025, brix 80,5±0,10, humidity % 17.73±0.049, 5-HMF 3,45±0,094 mg/kg, diastase 17.58±0.208, glucose %26.7±0.338, fructose % 35.4±0.184, invert sugar (glucose+fructose) %62,0±0.65, fructose/glucose 1,31±0.019, ash % 0.506±0.006, free acidity 27.01±0.1meq/kg, electrical conductivity 1.177±0,001 mS/cm^{-1}

In this study, the initial values of both varieties of honey at room temperature for different waiting times and 60 º C for 24 hours as a result the number of 5-HMF and diastase in the limit values have been identified. But waiting was hayit and honeydew 72 º C for 24 hours exceeded the limit values for the number of 5-HMF and diastase.

Key words: Hayit (vitex agnus-castus), honeydew, 5-Hydroxymethylfurfural, number of diastase.