

Quality evaluation of honey

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Introduction

For a long time, honey is valued for exceptional taste and beneficial effects on human health. Also honey is special because it can be stored more than a year suitable for use without any further processing. The purpose of this work was to evaluate honey acidity and diastase activity changes over a 12 months' storage period.



Fig. 1. Honey samples

Methods:

For research was being used three different botany composition of honey collected in July, August and September in Farm located in East part of Lithuania. The experiences have been done on fresh honey, and after storage 4 and 12 months. Acidity was determined by sample titration with sodium hydroxide until acid neutralization. Diastase activity was measured using a buffered solution of soluble starch, which fulfils the requirements of the method (Codex Alimentarius Commission, 1981). All data were statistically processed using a two factors analysis of variance (ANOVA) method from the STATISTICA software package (Statistica 10; Stat Soft, Inc., Tulsa, OK, USA). Data were expressed as the arithmetic means. The statistical significance of differences between the means was estimated by Fisher's LSD test ($p < 0,05$).

Results

The average results showed that after storage acidity depending on the kind of honey increased 1,4 - 1,7 times (Fig. 2).

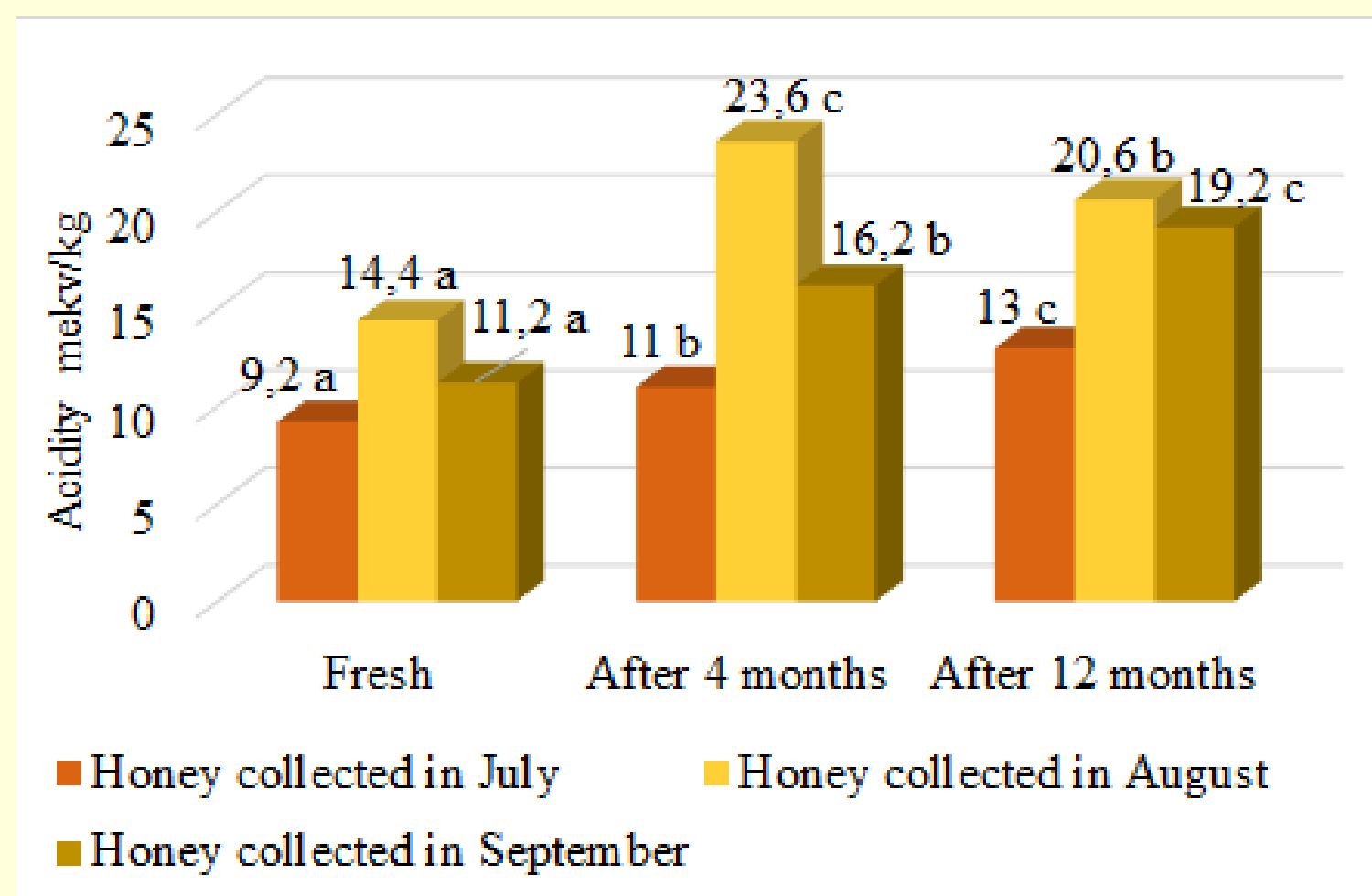


Fig. 2. Honey acidity results, mekv/kg

Average results of enzyme activity showed that after 4 months' honey storage it decreased 1.56 times, and after 12 months -2.26 times (Fig. 3).

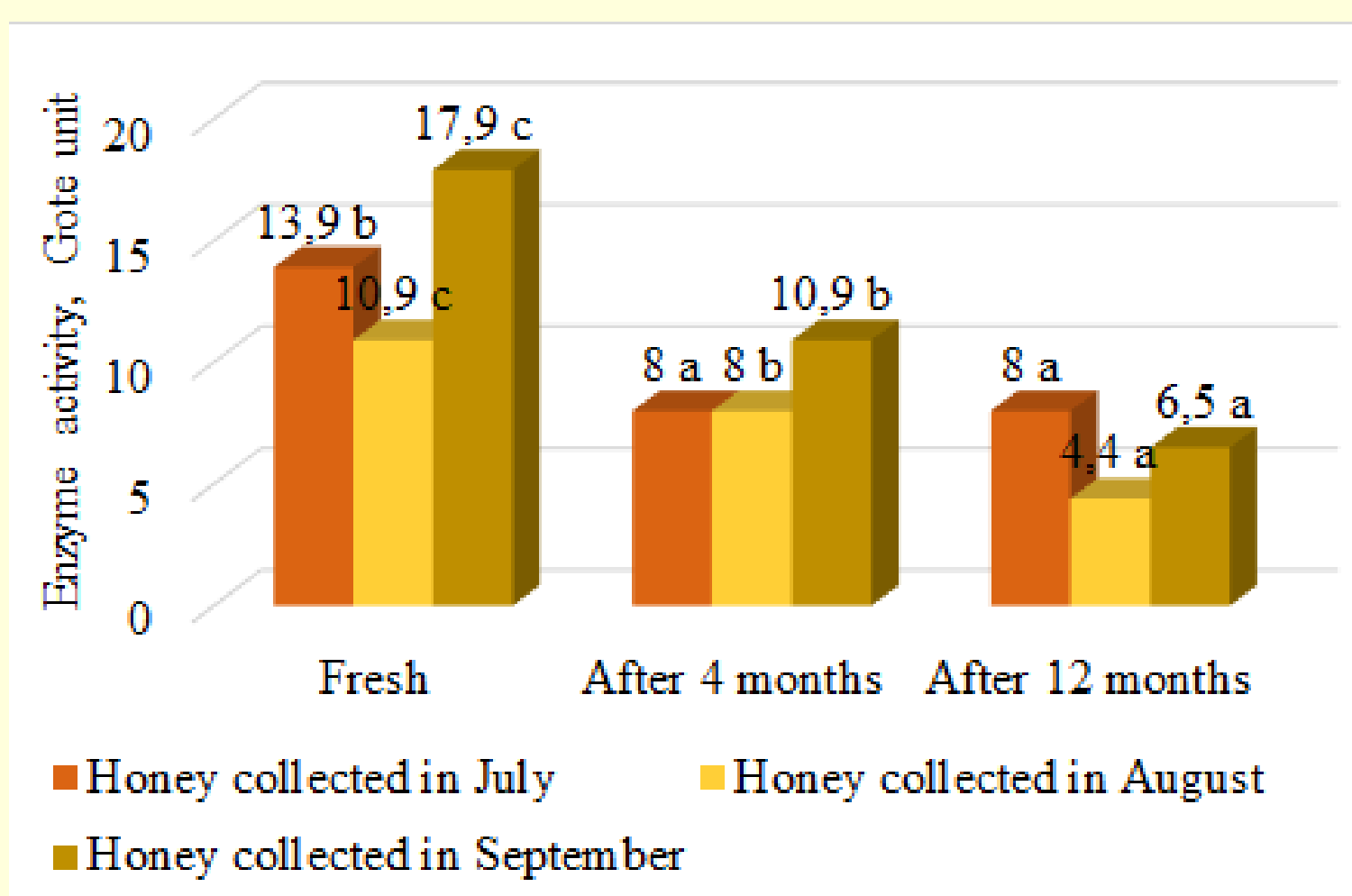


Fig. 3. Honey enzyme activity results, Gote unit

Conclusion:

In summary, it can be said that during storage honey quality changes and it's getting worse, therefore honey should be consumed as fresh as possible.