

USING RATIO OF THE MAIN SUGARS AND SOME OLIGOSACCHARIDES CONTENT TO INDICATE MARKET'S HONEY AUTHENTICITY

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ABSTRACT

The ratio of main sugars and oligosaccharides content present in honey, are used nowadays successfully to determine honey authenticity. Therefore, their quantification by instrumental analysis so-called HPAEC-PAD, has been the main aim of our study. Based on the complexity of sugars present in honey, there exists a varying change of their ratio, based on the botanical source, season, and so, needs to be considered. Through the results of the tests performed, we have been able not only to identify the content of main sugars, but also the effect of the specific ratio between some of them, for the characterization or using it as an indicator of honey genuineness. In the present paper it is shown the influence of the sugars ratio on the physical properties of honey such as crystallization, which makes the authentication process easier. As an evidence based procedure presented here, it can be declared that, if the ratio of sugars that produce easily crystallizable media is taken in consideration, it can be served as a selection criteria for the evaluation process or as a characterization factor of authenticity. For the same reason, it can be used also the concentration of some oligosaccharides in honey. Since their content in honey is very complex, although we have considered only five of them, their concentration and the ratio between them were compared with values referred in the specialized literature for genuine honey. Our study is a modest contribution in the field of honey authenticity, using the described procedure presented.

Keywords: Honey, sugars, ratio, adulteration, authenticity.