

Mineral and Sugar Profile of High Altitude Indian Honey from Kashmir Valley of India

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Abstract—*The aim of the study was to characterize sugar profile and macro minerals (K, Ca, Na and P) of three different varieties of honeys from Kashmir valley of India (acacia honey, pine honeydew and multifocal honey). Eleven sugars were identified and quantified by HPLC which include three monosaccharides, four disaccharides and four trisaccharides. The presence of carbohydrates in all analyzed honey varieties was further confirmed by obtaining a band from 1400–750cm⁻¹ which corresponds to the most sensitive absorption region of the sugars by using FTIR-ATR. Among the minerals, potassium was the most predominant mineral followed by calcium, sodium and phosphorus. The carbohydrate profile of studied honey revealed that all the unique honey varieties possessed reducing sugars, mainly fructose and glucose in largest portion and also small quantities of disaccharides and trisaccharides. Vibrational spectra recorded by using FTIR-ATR showed to be a good methodology in evaluation of sugars in honey.*