

Classification of Indian unifloral honey on the basis of physio-chemical characteristics and mineral composition by Pattern recognition methods

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The characterization of four types of honeys from different fruit plant sources viz., *Litche chinensis* (litchi), *Citrus sinensis* (sweet orange), *Ziziphus mauritiana* (ber), *Prunus persica* (peach) honeys (Acacia, Multifloral, Honeydew) was carried out on the basis of their quality parameters (moisture, pH, free acidity, reducing sugars, sucrose, fructose glucose ratio, ash content, proline content, invertase activity, diastase activity, hydroxymethylfurfural (HMF) content) and mineral content (sodium, potassium, iron, calcium, zinc, and copper). Pattern recognition methods such as principal component analysis (PCA) and linear discriminate analysis (LDA) were performed to classify honeys according to their type on the basis of physicochemical parameters and mineral content. The variables with higher discrimination power according to multivariate statistical procedure were proline, potassium and free acidity.