International Symposium on Bee Products, 3rd edition

Annual meeting of the International Honey Commission (IHC)

IHC

INTERNATIONAL HONEY COMMISSION

Grand Hotel 4 Opatija flowers - Opatija - Croatia

September 28th - October 1st, 2014

(QS-O-4) Quality Evaluation of Rare Unifloral Honeys from Portugal

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Honey chemical composition depends on botanic origin and nectar composition of plants or secretions from honey (Bentabol Manzanares et al., 2014). The consumers increasingly show a growing interest for unifloral honeys (de la Fuente et al., 2007). In this context, quality of beehives should be guaranteed based on their authenticity, safety and sensorial attributes. This study is framed within a global project on characterization of honeys from Portugal in progress in our research group. Up to the day, information about chemical composition of Portuguese honeys from rare nectar is not reported in the literature. However, special organoleptic attributes have been identified in these types of honeys which could play a key role for their market and exportation. The aim is carried out the physicochemical characterization of four rare honeys harvested in different regions of Portugal: Poejo (*Mentha pulegium*), Tomilho (*Thymus* sp.), Medronheiro (*Arbutus unedo*), Alfarrobeira (*Ceratonia siliqua*); in addition, a comparison with quality parameters found in a widely known honey such as Castanheiro (*Castanea sativa*) will be tackled. Studied samples present moisture content below limit established for legal regulations (Codex, 2001) showing a good predisposition to their conservation. Color values less than 100 mmPFund were found, hence, samples can be classified like light honeys. Levels of free acidity and reducing sugars were fulfilled. *Poejo* and *medronheiro* honeys exceeded values for HMF and diastase activity parameters. These findings suggest that samples are not fresh honeys or have been heated. Phenolic and flavonoids compounds were detected, mainly, in Poejo and Medronheiro. In general, small differences between parameters of *Castanheiro* and studied samples were found.

Bentabol Manzanares A, Hernández García Z, Rodríguez Galdón B, Rodríguez Rodríguez E, Díaz Romero C (2014) Physicochemical characteristics of minor monofloral honeys from Tenerife, Spain. *LWT - Food Science and Technology*, 55: 572–8.

de la Fuente E, Sanz ML, Martínez-Castro I, Sanz J, Ruiz-Matute AI (2007) Volatile and carbohydrate composition of rare unifloral honeys from Spain. *Food Chemistry*, 105: 84–93.

Codex Alimentarius Standard in Revised Codex Standard for Honey (2001) Vol. Codex STAN 12-1981. (Ed. C. A. Commission).

Key words: rare honeys, quality, characterization, chemical composition

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