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ALGERIAN HONEY: DETERMINATION OF SOME PHYSICOCHEMICAL PARAMETERS AND RESEARCH OF ANTIBIOTICS RESIDUES

<u>R. Draiaia</u>^{1*}, A. Chefrour², N. Dainese³, A. Borin³, C. Manzinello³, A. Gallina³, F. Mutinelli³

 ¹⁾ Mohamed Cherif Messaadia University, Institute of Biology, Biochemical Laboratory, Souk Ahras, Algeria
²⁾ Badji Mokhtar University, Faculty of Medical Science, Dept of Pharmacy, Laboratory of Botany, Annaba, Algeria
³⁾ Istituto Zooprofilattico Sperimentale delle Venezie, Legnaro (PD),Italy

The aim of the present study is to evaluate the quality of 36 samples belonging to different honey type supplied from local producers from Algeria in order to verify its compliance with the standards of Codex Alimentarius and EU. For that five physicochemical parameters were analyzed using the HPLC method: hydroxyl-methyl furfural, sugars, diastase activity and search of antibiotic contamination with streptomycin and tetracycline. The physico-chemical analyses of the Algerian honeys showed that 64% of samples correspond to codex standards and 36% are not in conformity with the standards required by the Codex Alimentarius and EU, because a part of them had one or more defects. The exclusion of these latter is due to the high rates of hydroxyl-methyl furfural, sucrose and also to the low enzyme level. Analysis performed by the laboratory to detect residues of tetracycline by HPLC/MS and streptomycin by HPLC in honey have revealed insignificant traces of oxytetracycline in two samples of honey (0.03 ppb). All the other samples were negative for both antibiotics. The present study, reveal that the Algerian honey has a best quality. From the present study, it is observed that the Algerian honey is generally good in quality. Completely in agreement with the requirements of international honey standards could be caused by inappropriate actions during processing and storage steps.

Keywords: Algerian honey quality, sugar, diastase activity, HMF, antibiotic residues.

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Corresponding author: draiaiaradia@yahoo.fr