Quality control of some honey samples from Macedonia

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Summary
Due to progress in science and technology - and the increasingly stringent legislation that has resulted – today's agric-foodstuffs sector must respect ever stricter standards and increasingly rigorous quality control and monitoring procedures. According to the definition of Codex Aliment Arius Commission Standards (2001), honey shall not have added any food ingredient other than honey to it, nor shall any particular constituent be removed from it. Natural honey is a sweet aliment produced by honey bees from sugary solution of nectar of flowers as their source of food in time of scarcity or during harsh weather condition. Artificial honeys can be produced from carbohydrate sources that have glucose-fructose composition that are within a close range with that of natural honey. These artificial honeys often have similar taste and physical appearance as natural honeys, but they lack the medicinal and nutritional properties of natural honeys because of the absence of the minor constituents that are present in natural honeys. The present study was designed to evaluate different honey samples obtained from regular monitoring for their quality parameters for assessment of their feasibility for foreign export. Some physicochemical properties (water content, sugar content, acidity, HMF and diastase) were determined for honey samples from Macedonia to evaluate their quality monitoring. The water content, free acidity content and sugar content varied within the range of (17.12 - 35.47%), (9.97-31.44 meq/kg) and (61.15 - 81.25%) respectively. The HMF content varied within the range (16- 35 mg/kg) while there is no significant difference found among diastase activity in different honey. This explained the fact that this value is not related to do with floral type. All of the samples were found to be in acceptable range of international standards for all of the tested parameters except for water percent which was higher than EU normatives in only one sample, and reducing sugars which was higher in three samples. These samples were marked to be according to the international standards and are safe for human consumption. These may be allowed for marketing and if possible for foreign export.

Key words: honey, quality monitoring, physico-chemical parameters, standards.