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Editor's Note

The first 'International Congress on Bee Sciences' was organized online and free of charge. We are very happy and proud that various Bee science-related fields attended the congress. During this event, distinguished and respected scientists came together to exchange ideas, develop and implement new researches and joint projects. There were 25 invited speakers from 18 different countries. The scientific committee of the congress consisted of 211 scientists from more than 160 universities. Almost 500 participants participated in the congress. We would like to thank all participants and supporters. Hope to see you at our next congress.

Best wishes from Turkey

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ORAL PRESENTATIONS

Poster Presentation

An overview of the chemical contaminants in honey

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Abstract:
Honey is defined as the natural sweet substance produced by honey bees (*Apis mellifera*) from the nectar of plants or from secretions of living parts of plants or excretions of plant sucking insects on the living parts of plants, which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in the honeycomb to ripen and mature. Honey contains more than 170 substances, and the main compounds are sugars, water, and macro and micro elements. Honey also contains small amounts of phenolic compounds, vitamins, organic acids, enzymes, amino acids and this substance have a high benefit in the human health. Also, many studies demonstrated different therapeutic effects that honey can have (anti-inflammatory effects, antibacterial properties, anti-proliferative effects as antioxidants etc.). On the other hand, heavy metals/metalloids, radionuclides, antibiotics, PAH (polycyclic aromatic hydrocarbons), polycyclic aromatic hydrocarbons, herbicides, and neonicotinoids in honey might pose toxic effects, which would be a risk to human health. According to EU legislation that is in force, the use of antibiotics in beekeeping is forbidden. Residues of pesticides such as organochlorine (OCs) and organophosphorus (OPs), carbamates, and pyrethroids have been detected in honey in different studies. In the present work, overview of recent literature data on chemical contaminants in honey was performed.

Keywords: honey bee products; honey; pesticides; toxic elements; antibiotics; radionuclides.

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