

HEAVY METALS, ANIONIC AND NON-ESTERIFIED FATTY ACIDS IN THE CHEST TISSUES OF HONEYBEES IN DIFFERENT TERRESTRIAL ECOSYSTEMS OF CARPATHIANS

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Heavy metals participating to the exchange processes in the organism of melliferous bees. In particular, heavy metals influence on intensity of exchange of proteins, lipids and carbohydrates in the organism of bees.

In the total material well-being of organism of bees changes by power, structural and bioactive material. All of it affects vital functions of melliferous bees and productivity of bee families.

The aim of this study was to research the intensity of accumulation of individual heavy metals, anionic and non-esterified fatty acids in the chest tissues of honeybees, taken from the beehives located in the mountain, foothill and forest steppe areas of the Carpathian region.

It is stated that chest tissues of honeybees, taken from the beehives located in the foothills, and especially in the forest steppe area of the Carpathian region, contain more iron, zinc, copper, chromium, nickel, lead and cadmium and anionic saturated, monounsaturated and polyunsaturated fatty acids.

Besides, they have a lower content of non-esterified saturated, monounsaturated and polyunsaturated fatty acids.

A high level of heavy metals and anionic fatty acids and a low level of non-esterified fatty acids in the chest tissues of honeybees, taken from the beehives located in the foothill and especially in the forest steppe areas of the Carpathian region is the result of industrialization and urbanization.

Keywords: HONEYBEES, TISSUES, HEAVY METALS, FATTY ACIDS, ECOSYSTEMS OF CARPATHIANS.