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EFFECT OF STORAGE CONDITIONS IN THE QUALITY OF THE BEE POLLEN

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Bee pollen (BP), is the result of the agglutination of flower pollens, made by worker honey bees, with nectar and salivary substances and collected at the hive entrance. The collection of AP is a relatively recent development, dependent primarily on the basic concept of scraping pollen of the bees' legs as they enter the hive. The objective of this work was to evaluate the effect of storage conditions in the physical–chemical and microbiological parameters of organic bee pollen

In our study were identified eight (8) botanical families; *Rosaceae* was the dominant following by *Fagaceae*. Regarding to the chemical physical parameters analyzed was verified that, all of them were in accordance with the stipulated by law, except the humidity. Significant differences were observed in the among in humidity, pH, water activity, reducer's sugars, lipids, carbohydrates and energy value among the dehydrated and refrigerated BP samples.

They were found seventeen (17) fat acids; ten (10) belonging to the family of the saturated fatty acids (SFA), four (4) monounsaturated (MUFA) and three (3) polyunsaturated (PUFAs). PUFAs were the most abundant. Significant differences were observed in SFA, MUFA and PUFAs among the several analyzed samples.

Regarding to microbiological analyses, the aerobics mesophylics, moulds and yeasts were present in all of the analyzed samples. The first ones (aerobics mesophylics) exceeded the legislated in some dehydrated samples, while the values obtained for the moulds and yeasts were higher in the refrigerated samples. The indicators of sanitary quality and the toxigenic species were absent in all of the samples in study. The studied pollens are nutritionally well balanced, and contain high levels of moisture, proteins, fat, energy, ash, carbohydrates, reducing sugars, essential n–3 fatty acids and good ratios of polyunsaturated fatty acids (PUFA) / saturated fatty acids. In fact, the PUFA represent 66% of the total fatty acids.