CHEMICAL AND SENSORY QUALITIES OF DIFFERENT ARGENTINE HONEY VARIETIES, GAMMA IRRADIATED TO CONTROL AMERICAN FOULBROOD (LOQUE AMERICANA)


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Honey may be contaminated with spores of Paenibacillus larvae larvae which causes a serious disease in bees: “American foulbrood” (AFB), which impairs international trade.

Irradiated food wholesomeness is guaranteed by the World Health Organization (WHO) and FAO. Argentina is an important honey producer and in-bulk exporter. As few references were found in literature about the effect of irradiation on honey chemical and sensory qualities along storage time, this work was undertaken to evaluate this on very different national varieties.

Different honeys from 5 regions were fractionated and irradiated at the cobalt-60 semi industrial facility (PISI) of the Ezeiza Atomic Centre, with doses of 0, 10 and 20 kGy, and stored at room temperature for 10 months. Analysis were performed along storage: acidity, diastase activity, and water, reducing sugars, hydroxymethylfurfural (HMF) contents, sensory acceptability by a 50 members consumer panel. Results were statistically evaluated, Student and Dunnett tests, p<0.05.

CONTROL AND IRRADIATED ARGENTINE HONEYS - 4 th. STORAGE MONTH AT ROOM TEMPERATURE

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IONIZING RADIATION AT A DOSE OF 10 kGy, SUFFICIENT TO CONTROL AMERICAN FOULBROOD, DID NOT IMPAIR THE CHEMICAL AND SENSORY QUALITIES OF FIVE ARGENTINE HONEY VARIETIES, ALONG 10 STORAGE MONTHS.

(1) Some references:

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