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Who is polluting Italian honey? A filth test survey

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Honey is largely considered a natural and healthy product. Investigation on foreign matter in honey provides useful information to evaluate honey quality standards in apiary, honey extraction and packaging phases. Indeed, toxic substances (antibiotics, pesticides and heavy metals) as well as foreign matter (example: arthropods, hairs) can contaminate honey acting as allergens or vectors of human pathogens. We used the filth test to evaluate the presence of foreign matter in samples of Italian honeys mainly from Tuscany. We revealed a high number of carbon particles and other inorganic fragments followed by fragments of animal origin; these latter included whole small insects, their cuticular fragments, mites and mammal hairs. The kind of contamination allowed us to evidence uncorrected apicultural practices and to suggest the appropriate corrective measures. The filth test method is an excellent and cheap tool to check honey quality requiring minimal instrumental equipment and giving results that can be interpreted quickly.

Biography

Francesca Cosci has graduated in Food Biotechnology at the University of Pisa and is the Owner of the beekeeping company La Mieleria del Castello snc. In this context, she has acquired expertise in the sensory analysis of honey and she is registered in the National Tasters Honey Association. Currently she collaborates with the Department of Agriculture, Food and Environment, University of Pisa, where she carries out research on: The bioactivity of essential oils extracted from aromatic and medicinal plants against insect pests of stored food and of medical interest and against *Varroa destructor*, mite harmful to honeybees and carries research on the identification by filth-test of the contaminants contents in the honey and into hive products..

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