

## **P15: ISOTOPIC MODEL FOR DETECTING HONEY ORIGIN**

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Isotopic analysis is suggested from the E.U. as the most suitable and most reliable method for detecting the authenticity and the traceability of food products such as honey. The isotopic ratio of carbon 13 in honey reflects the photosynthetic cycle of the original plant. The  $\delta^{13}\text{C}$  of honey has range from -25‰ to -27‰, consequently any other value beyond those limits suggests an addendum of something else than honey. For example, in honey, often, there are additives of sugars like fructose or sugars from plants like corn or sugar cane. These sugars have a  $\delta^{13}\text{C}$  that ranges from -9,5‰ to -12,5‰, so if there is a mixture with these sugars it will reflect in the isotopic value. Considering all of the above, the isotopic analysis of food products, including honey, can give the answer whether a product is authentic or not.

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