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FOR IMMEDIATE RELEASE…

Tests Prove Most Store Honey is Pure Honey

Tinley Park, IL: Since first published in 2011, an article suggesting that most store honey isn't actually honey has been recirculating in the media without any real supporting evidence or critical examination.[1] This claim was substantially refuted in an article published later in 2011[2]. This year, RQA Inc., under contract with a client in the honey industry, conducted one of the most exhaustive surveys of retail honey published in the United States.

Founded in 1989, RQA is a global leader in providing quality assurance and food safety consultancy, training and services to the food and beverage industry. RQA offers Retail Quality Audits, Counterfeit Investigations, Consumer Complaint Sample and Product Retrieval, Crisis Planning and Management, Inspection and Remediation, Forensic Contaminant Investigation and Product Recall Services.

Survey Design

The objective of the survey was to collect samples of retail honey brands across the US market and subject these samples to the most sophisticated authenticity testing available on the market today. Samples were collected directly from retail store shelves in 11 markets, Arkansas, California, New York, Texas, Washington, Florida, Connecticut, Georgia, Louisiana, New Jersey and Pennsylvania. The selection of these store locations was based upon both geography, to source from across the US, and upon sales volumes, to select locations where a large amount of honey is sold. In total, 74 samples were collected representing 11 different brands. Collectively, these brands represent 40 million pounds of the 82-million-pound retail honey market as reported by IRI, a data collection service for the retail grocery industry. As an independent 3rd party, RQA could collect and submit the samples without bias towards any one particular brand and could blind the labs to brand identity to ensure no bias was applied during the subsequent analysis.

Sample Collection and Analysis

Once collected by RQA field representatives, the purchased samples were assigned random identification numbers and transferred to uniform sample containers for shipment and analysis. The anonymized samples were shipped to a Eurofins lab in Germany, known as one of the top honey authenticity testing labs in the world. Submitted samples were tested using three sophisticated analytical methods, what

[1] Tests Show Most Store Honey Isn't Honey; Andrew Schneider, Food Safety News, November 7, 2011
[2] Relax, Folks. It Really Is Honey After All, Dan Charles, The Salt, November 25, 20118:00 AM ET

Eurofins like to call their SOTA or State of the Art testing package. The methods applied were the ^{13}C Stable Carbon Isotope Ratio method paired with a liquid chromatograph or **EA/LC-IRMS**, H^1 Nuclear Magnetic Resonance Profiling or **NMR** and Liquid Chromatography-High Resolution Mass Spectrometry analysis or **HRMS**. A full description of these methods can be found as a helpful FAQ on the National Honey Board website at (https://honey.com/images/files/NHB-Honey-Testing-FAQs.pdf).

These methods in combination represent the latest and most sophisticated tools to detect the addition of non-honey sugar syrups which may have been added to a sample of presumed pure honey. Each of these methods has a particular area of specificity that can detect certain types of sugar or syrup adulteration in honey. This three-test approach has been endorsed by the majority of contract labs that service the honey industry as well as industry trade organizations.

> *"The SOTA method applied by Eurofins Food Integrity Control Services GmbH offers the best available combination on the market today for the comprehensive evaluation of an unknown honey sample to detect the adulteration of honey with syrups, whether from bee feeding or intentional EMA (economically motivated adulteration). While as scientists we can never state that any method or combination of methods will detect 100% of all adulteration, this combination represents a significant improvement over past methods and provides a high degree of certainty. If a sample passes the SOTA panel of tests the likelihood of adulteration is very small" Christof Kunert, Eurofins Food Integrity Control Services GmbH, Ritterhude (near Bremen), Germany.*

Results

Of the 74 samples across 11 brands, 70 passed all three advanced testing methods. Of the four samples that failed testing, all were packed by a single manufacturer and represented a single brand. The full detail of these results can be found at (https://www.rqa-inc.com/honey/Honey-Survey-Results.html), with specific brand names removed.

Test Type	EA/LC-IRMS	NMR	HRMS
Determined to be Pure Honey	74	74	70
Determined to be Adulterated	0	0	4
Total Samples	74	74	74
Pure Honey Samples	100%	100%	95%

What else did we learn?

In addition to testing for the addition of sugar syrups, samples were also evaluated for the presence of pollen and compared to claims on the label. While the presence or absence of pollen is not a determining factor where authenticity is concerned, we are seeing an increased number of products which claim to be Raw or Unfiltered. Products making such claims should subsequently have a full complement of pollen in the sample, although it should be noted that failure to contain pollen while making this claim is not a violation of the law as the FDA has not established any specific regulation where pollen is concerned.

Of the 74 samples, five did not contain pollen and an additional four were noted to have pollen but in low concentrations. Of these five samples that did not contain pollen, none of them made any claim of Raw or Unfiltered. Two of the five declared the honey to be “Clover Honey” but without the pollen, this could not be definitively confirmed, the remaining three declared the floral source to be wildflower. While the 2011 article found 70% of the samples from stores to be absent pollen, 89% of the 2023 study samples contained pollen. This is a significant shift in what was once a predominant USDA described presentation style of Filtered Honey. Likely due to consumer preference for honey that contains pollen, it appears that most honey on the retail shelf delivers against this expectation.

Conclusion

Contrary to the 2011 article’s claim that most store honey isn’t honey, this survey indicates otherwise. 95% of the samples collected for this survey were found to be pure honey. Across the 11 brands, 10 were found to sell only 100% pure honey. The one brand that failed testing represented eight of the total samples collected, four of which failed HRMS testing.