

Exploring fraudulent honey cases from readily available food fraud databases

ABSTRACT

Objective - Honey has been identified statistically, from an extensive record of scholarly journals and media reports, as one of the most adulterated ingredients. It has a long history of dilution, substitution, misrepresentation of floral sources, and geographical origin. Despite the growing reported honey adulteration cases, the global honey market has been retaining its dominance. According to Market Research Future, honey demand estimates to flourish at a substantial growth rate of 7.22% during the forecast period of 2017-2023. Increasing demand and commercial value of honey motivate falsification and adulteration in honey. This paper aims to examine the underlying factor of honey fraud's existence and prevalence by reviewing the core issues in honey quality assurance from a commercial standpoint. Methodology/Technique – This paper reports on the industry scale of honey fraud using data from existing food fraud databases. Honey fraud cases from Food Adulteration Incidents Registry (FAIR) and Food Fraud Summary Month Reports were extracted, reviewed, and summarized. Finding – The findings begin with an overview of past cases and current standing of honey fraud, followed by identification of the types of fraudulent practices on honey, and lastly, highlighting the challenges in fighting honey fraud. Findings conclude the scale of honey fraud which is widespread and interconnected across the world. Honey fraud includes fraudulent admixing with sugars or lower quality honey and incorrect labeling of honey's geographical origin or floral source. Challenges in combatting honey fraud are primarily due to financial motivations for producing and selling fraudulent honey and low control measures in the traceability system. Novelty – This paper reports on the scale of honey fraud in the industry using data from the existing food fraud database. Compared to the abundance of research reporting on the latest most advanced detection method for honey authenticity, this paper examines the underlying factor on the existence of honey fraud and the fundamental control measure to be taken.

Keyword: Fraudulent honey; Honey adulteration; Industrial malpractice; Apiculture