



Honey Adulteration

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Why in News

As per an investigation carried out by the **Centre for Science and Environment (CSE)**, **honey** sold by several major brands in India has been **found adulterated with sugar syrup**.

CSE is a **not-for-profit public interest research and advocacy** organisation.

Key Points

- **Findings:**
 - **Samples of 10 out of 13 brands**, which were examined, **failed to clear the Nuclear Magnetic Resonance (NMR) test**.

Honey samples from **brands** such as Dabur, Patanjali, Baidyanath, Zandu, Hitkari and Apis Himalaya, all **failed** the internationally accepted NMR test.
 - Indian companies in the business of honey are **importing synthetic sugar syrups from China** for adulterating with honey.
 - CSE tracked down **Chinese trade portals which were advertising fructose syrup** that can bypass tests to check adulteration.
 - Chinese companies informed CSE that even if **50-80% of the honey is adulterated with syrup**, they would **pass all stipulated tests as per Indian standards**.

Tests employed as **per Indian regulations** check whether the honey is adulterated with **C4 sugar (cane sugar) or C3 sugar (rice sugar)**.
 - Adulteration also destroyed the **livelihoods of bee-keepers** who found it **unprofitable to make pure honey** because **sugar-syrup honey** was often available at **half the price**.

- **Impact:**
 - Households consume more honey because of its **intrinsic goodness (antimicrobial and antiinflammatory properties)**.
 - As per this investigation, most of the honey sold in the market is **adulterated with sugar syrup**. Therefore, instead of honey, people are eating more sugar, which will **add to the risk of Covid-19** and increase the risk of **Obesity**.

Nuclear Magnetic Resonance (NMR) Test

- It is a test that can **ascertain the composition** of a product at the **molecular level**.
- It is **an analytical chemistry technique** used in quality control and research for determining the content and purity of a sample as well as its molecular structure.
- The NMR test is **not required by Indian law** for honey that is being marketed locally **but is needed for export**.
- Recent NMR tests, while being able to detect additives, **were not able to detect the quantity of adulteration**.

Way Forward

- There is a need to **strengthen enforcement** in India through **tightened standards, testing, and also traceability**.
- The government should get samples tested using **advanced technologies** and **make this information public** so that consumers are aware and their health is not compromised.
- Stop import of syrups and honey from China and do not allow this to come through other countries (**syrup laundering**).
- Companies need to **trace back the origins of the honey** from the beekeeper to the hive.

Source:TH