Honey Adulteration

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