Milk Safety and Quality Survey

What is the issue?

- A milk safety and quality survey was conducted by an independent agency at the behest of the Food Safety and Standards Authority of India (FSSAI).
- This survey has demolished the perception of large-scale milk adulteration in India.

What does the survey reveal?

- It was undertaken on 6,432 samples collected between May and October, 2018, picked from over 1,100 town/cities with over 50,000 populations.
- The samples were tested for **13 common adulterants and 3 contaminants** - pesticides, aflatoxin M1 and antibiotics.
- The survey found 93% of the samples were absolutely safe.
- Only 12 adulterated samples were found to be unsafe for consumption.
- The adulterated samples - were also subjected to confirmatory tests - were from just three States: Telangana, Madhya Pradesh and Kerala.
- The survey's quantitative analysis of all adulterated samples showed the amount of adulterants and contaminants in the dozen samples was not high and hence unlikely to pose serious threat to human health.
- However, it did find 368 samples (5.7%) had aflatoxin M1 residues beyond the permissible limit of 0.5 microgram per kilogram.
- Antibiotics were also seen above the permissible level in 77 samples, from Madhya Pradesh, Maharashtra and Uttar Pradesh.

Why is the presence of aflatoxin M1 a health concern?

- Aflatoxin M1 was more widely present in processed milk samples (227) than in raw milk (141).
- According to the **FSSAI**, aflatoxin M1 in milk is from feed and fodder, which is not regulated.
- The highest residue levels of aflatoxin M1 in milk were seen in samples from 3 States - Tamil Nadu, Delhi and Kerala.
- According to the **International Agency for Research on Cancer**, aflatoxin M1 has been classified as "possibly carcinogenic to humans".
- Its carcinogenic potency is estimated to be about $1/10^{th}$ of aflatoxin B1.
- Since the current survey has limited itself to milk, it is unclear how

widespread aflatoxin M1 contamination is in milk products like cheese, and hence the total exposure to it.

- Aflatoxin M1 in milk and milk products is a public health concern especially in infants and young children as milk constitutes one of the major sources of nutrients.
- According to the **World Health Organisation (WHO)**, exposure to aflatoxin M1 in milk and milk products is especially high in areas where the grain quality used as animal feed is poor.
- Improper storage of food harvest in warm and humid conditions leads to aflatoxin contamination that is much higher than what is seen in the field.
- **Steps** - Attempts need to be taken both before and after food crop harvest to reduce the toxin amount.
- Equally important is in having facilities to regularly test for aflatoxin M1.

Source: The Hindu

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