



# Popular Spice Brands Adulterated with Insecticides

## Why in News?

Recently, **Indian spice** labels are deemed **inappropriate for human consumption** in Rajasthan due to the suspected presence of the **cancer-causing chemical ethylene oxide**.

- Singapore, Hong Kong, and Nepal have prohibited the distribution of these Indian spice labels.

## Key Points

- As per latest reports, Spice brands **failed quality tests** conducted by the **Rajasthan health departments** as part of the state's campaign against food adulteration.
  - During the sample test, it was found that the spices have **thiamethoxam and acetamiprid, ethion, and azoxystrobin**.
- The investigation team discovered that the **levels of pesticides and insecticides** in these spices **exceeded permissible limits**, which **could pose significant health hazards**.

## Ethylene Oxide (ETO)

- **ETO** is a chemical used as a **sterilizing agent** in spices, but it is considered **carcinogenic** when used beyond certain limits.
  - While efforts are being made to prevent **ETO contamination**, the sample failure rate for Indian spice exports is **less than 1%** in major markets.
- The Spices Board released guidelines for exporters to prevent ETO contamination and ensure the safety of all markets.
  - It advises against using ETO as a sterilising agent for spices and suggests alternatives like **steam sterilisation and irradiation**.

## Thiamethoxam

- Thiamethoxam is moderately hazardous to humans because it is **harmful if swallowed**. It found it to be **no skin or eye irritant**, and not mutagenic in any in vitro and in vivo toxicology tests.

## Acetamiprid

- It is an **organic compound**. It is an **odorless neonicotinoid** (neuro-active insecticides chemically similar to nicotine) insecticide.

## Food Safety and Standards Authority of India (FSSAI)

- FSSAI is an **autonomous statutory body** established under the **Food Safety and Standards Act, of 2006**.
- FSSAI is responsible for **protecting and promoting public health** by regulating and supervising food safety and quality in India, operating under the **Ministry of Health & Family Welfare**.
- FSSAI has a **headquarters in New Delhi** and regional offices in eight zones across the country.
- The Chairperson and Chief Executive Officer of FSSAI, appointed by the central government. The

Chairperson is in the **rank of Secretary to the Government of India.**

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