



FSSAI Raises Pesticide Limits in Herbs and Spices

For Prelims: [Food Safety Standards Authority of India \(FSSAI\)](#), [Pesticide Poisoning](#), [Codex Alimentarius](#), [Food Safety and Standards Act, 2006](#), [State Food Safety Index](#).

For Mains: Threat of pesticide poisoning, FSSAI mandate and its working in ensuring food safety.

Source: DTE

Why in News?

The recent decision of the [Food Safety Standards Authority of India \(FSSAI\)](#) to raise the **maximum residue limit (MRL)** of pesticides has sparked outrage from activists and scientists due to potential health risks and trade implications.

- The FSSAI order increased the **maximum residue limit (MRL)** of [pesticides](#) allowed in herbs and spices by tenfold, from 0.01 mg/kg to 0.1 mg/kg.

What is the Issue Regarding the FSSAI Order?

- **Inconsistencies in FSSAI's Previous Stance:**
 - The [FSSAI's](#) order contradicts its own previous stance. In April 2022, the authority acknowledged the **lack of field trial data for most Indian pesticides** and advocated using Maximum Residue Limits (MRLs) established by [Codex Alimentarius](#).
 - However, the **latest order deviates** from this approach for spices and herbs.
- **Data Transparency and Reliability:**
 - The maximum residue limit (MRL) of **pesticides for food and commodities, including spices and culinary herbs**, is specified under the **Food Safety and Standards (Contaminants, Toxins and Residues) Regulation, 2011**, based on **field trial data** received through the **Central Insecticides Board and Registration Committee (CIBRC), Union Ministry of Agriculture and Family Welfare**.
 - But there is an **issue of conflict of interest** as these studies often come from the pesticide companies themselves.
 - The **Centre's Monitoring of Pesticide Residues at the National Level (MPRNL)** checks the amount of pesticide in our food, but **it does not test spices and lacks comprehensive data**.
- **Impact on Consumers and Trade:**
 - Countries with **stricter pesticide** regulations like **Europe**, have **rejected Indian products exceeding their MRLs**, as exemplified by recent recalls of Indian food products containing excessive pesticide residues.
 - E.g. In **April 2024**, few popular spices firms in India, have been **banned in Singapore and Hong Kong** for allegedly containing the **pesticide 'ethylene oxide' beyond permissible limits**.
 - **Ethylene Oxide** is a **harmful pesticide** unfit for human consumption and whose long-term exposure can cause **cancer**.

What is Pesticide Poisoning?

▪ About :

- Pesticide is any **chemical or biological substance** intended to prevent, destroy or **control damage from pests** which has both agricultural and non-agricultural uses.
- They also **pose serious risks to human health** and the **environment**, especially when they are misused, overused, or sold illegally.

▪ Pesticide Regulation in India:

- Pesticides are **regulated under the Insecticides Act, 1968** and the **Insecticides Rules, 1971**.
 - The **Insecticides Act of 1968** covers the registration, manufacture and sale of pesticides in India.
 - The Act is administered by the **Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare**.

▪ Types of Pesticides:

- **Insecticides:** The chemicals that are used to **protect plants from insects and pests** are known as Insecticides.
- **Fungicides:** This class of crop protection chemicals is used to **control the spread of fungal diseases** in plants.
- **Herbicides:** Herbicides are **chemicals that kill or control the growth of weeds** in the cultivation area.
- **Bio-Pesticides:** They are pesticides of biological origin, i.e., derived from animals, plants, bacteria etc.
- **Others:** This includes plant growth regulators, nematicides, rodenticides and fumigants.

▪ Concept of Pesticide Poisoning:

- Pesticide poisoning is a term that refers to the **adverse effects** of exposure to **pesticides on humans or animals**.
- Pesticide exposure can cause **adverse health effects** including **cancer, effects on reproduction, and immune or nervous systems**.
- According to the World Health Organization (WHO), pesticide poisoning is one of the leading causes of death among agricultural workers worldwide.

▪ Types of Pesticide Poisoning:

- **Acute poisoning** occurs when a person ingests, inhales, or comes into contact with a **large amount of pesticide in a short period**.
- **Chronic poisoning** occurs when a person is **exposed to low doses of pesticide over a long period**, which can cause damage to various organs and systems in the body.

What is the Food Safety and Standards Authority of India?

▪ About:

- The Food Safety and Standards Authority of India (FSSAI) is a **statutory body** formed under the Food Safety and Standards Act, 2006.
 - The Food Safety and Standards Act, 2006 **replaced acts** like the Prevention of Food Adulteration Act, 1954, Fruit Products Order, 1955, Meat Food Products Order, 1973.
- It operates under the **Union** Ministry of Health and Family Welfare.

▪ Mandate:

- The FSSAI has the mandate of **regulating the manufacture, storage, distribution, sale, and import of food articles**, and also **establishing standards** to ensure food safety.

▪ Structure and Organization:

- It is made up of **22 members** and a **Chairperson**. **One-third** of the members must be **women**.

▪ Functions:

- **Setting Food Safety Standards:** It has the **power to lay down regulations** to implement food safety standards in the country.
- **Food Testing Accreditation:** It has the power to set up **guidelines** for the **accreditation of food testing laboratories** in the country.
- **Inspecting Authority Powers:** Food safety officers have the right to enter and inspect

any place where food products are manufactured, stored, or exhibited.

- **Food Safety Research:** The Research and Development division of FSSAI is responsible for **research in the field of food safety standards**. They continuously try to **adopt international food standards**.
- **Identifying Threats:** The FSSAI is required to **collect data regarding food consumption**, contamination, emerging risks, etc.

▪ **Events and Campaigns of FSSAI:**

- [World Food Safety Day.](#)
- [Eat Right India.](#)
 - [Eat Right Station.](#)
 - [Eat Right Mela.](#)
- [State Food Safety Index.](#)
- [RUCO \(Repurpose Used Cooking Oil\).](#)
- [Food Safety Mitra.](#)
- [100 Food Streets.](#)

Drishti Mains Question:

Q. Elaborate on pesticide poisoning in the context of FSSAI's recent order on increasing the maximum residue limit (MRL) of pesticides allowed in herbs and spices.

UPSC Civil Services Examination, Previous Year Question

Prelims:

Q. Consider the following statements: (2018)

1. The Food Safety and Standards Act, 2006 replaced the Prevention of Food Adulteration Act, 1954.
2. The Food Safety and Standards Authority of India (FSSAI) is under the charge of Director General of Health Services in the Union Ministry of Health and Family Welfare.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (a)

Mains:

Q.1 Elaborate the policy taken by the Government of India to meet the challenges of the food processing sector. **(2021)**