



# Shriram Institute for Industrial Research

Delhi Campus: 19, University Road, Delhi -110007; Email: [customercare@shriraminstitute.org](mailto:customercare@shriraminstitute.org)

Bengaluru Campus: 14-15, Sadarmangla Indl. Area, Whitefield Road, Bengaluru - 560048

## Addressing Pesticide Residue Concerns in Basmati Rice

### Pesticide Residues are a threat to Indian Public Health and Exports Growth

Pesticides used to protect crops from disease or harmful organisms during production, storage, and transportation have potential toxicity.

Pesticide residues remaining in or on commodities such as vegetables, fruits, herbs, honey, edible oil seeds, cereals, and food of animal origin can cause adverse health effects and environmental concerns as well.

Organizations including the World Health Organization (WHO), the Food and Agricultural Organization (FAO), the U.S. Environmental Protection Agency (EPA), and the European Union (EU) have developed and published policy statements to guide agricultural organizations on the

consumers. Ten  $\mu\text{g}/\text{kg}$  (10 ppb) is the MRL for most pesticides except for explicitly prohibited compounds. **This is leading to rejection of many agriculture based export consignments and products from India.**

**At SIIR, we have capability to detect below 5 ppb for the 23 pesticides as per Export Inspection Council (EIC).**

### World Class Pesticide Residue testing Infrastructure in India

To address this issue of demand of all stakeholders and need for highly sensitive analysis methods of multi-residue pesticides in food matrices, SIIR has been fully equipped to handle such complex analysis work.

SIIR offers High performance liquid chromatography coupled to triple quadrupole mass spectrometry (LC/TQ) is a widely accepted modern technique that works with a broad range of pesticides for quantitative analysis. This is because of its high sensitivity, selectivity, and accuracy that ensure high quality data for meeting MRL requirements in complex food matrices.

A comprehensive LC/MS/MS workflow has been available at SIIR for an accurate and reliable analysis of more than 500 pesticide residues in various plant origin food matrices.

At SIIR, we have validated 23 MRLs in pesticides in Basmati Rice. SIIR has capability to estimate 500 pesticides in Basmati Rice.

**Important:** Please feel free to contact or visit SIIR and discuss the issues related to pesticide residues and how to address them.



proper use of pesticides. For example, according to EU regulation, a maximum residue level (MRL) is the highest level of a pesticide residue legally tolerated in or on food or animal feed when pesticides are applied.

The amount of pesticide residues allowed in food must be as low as possible to ensure food safety for

**Contact Details:** SIIR Customer Care : +91-11-2700.0100 (Delhi); +91-80-3500.0500 (Bengaluru)  
**Email:** [customercare@shriraminstitute.org](mailto:customercare@shriraminstitute.org)