

Press Release

Rapid Food Testing Devices and Kits set to redefine Food Safety in 2020

New Delhi, December 31, 2019: Country's Food Regulator, the Food Safety and Standards Authority of India (FSSAI) has made a quick progress towards the use of advanced technologies for food testing in the year 2019. Several new rapid food testing devices/kits for detection of food-borne pathogens and toxins have been introduced during 2019. These devices ensure "*faster, better, cheaper*" real-time testing of food. These are expected to become an integral part of quality assurance/quality control programs in the food industry and also for regulatory and surveillance purposes in 2020.

In 2019, FSSAI had finalized the regulations for approval of rapid testing devices, kits and methods to strengthen the food testing ecosystem in the country. FSSAI has so far approved 30 rapid food testing kits/devices under these regulations given as per list 1 attached below.

FSSAI is also providing these kits/devices to the State Governments for use by field officers and get quicker & validated results for tests conducted on different food products such as milk and edible oils, amongst others. Steps have been initiated to make these available on government eProcurement marketplace (GeM) portal so that further procurements can be made by Governments, local bodies on their own. FSSAI has invested over Rs. 5 crore on this so far.

Only two out of 30 rapid kits/ devices are indigenously manufactured, rest are all imported despite the fact that many research and scientific institutions are engaged in development of such kits and devices. FSSAI has initiated steps so that indigenously developed kits/devices are validated and approved under the FSSAI regulations on a fast track basis. Work has begun on 30 of these kits/devices as per list 2 attached below. These were on display at the second Eat Right Mela organized at New Delhi recently.

CEO, FSSAI, Pawan Agarwal informed that FSSAI would spend over Rs. 20 crore and procure rapid food testing kits and devices. These would be provided to field officers through the State governments. He hoped that various States would also buy such kits/devices from the GeM portal to make them widely available with the enforcement officials. Once, such kits and devices are widely used for regulatory purposes; food industry would also begin to use them for internal quality assurance and quality control purposes. He pointed that there is a market potential of Rs. 1000 crore for such kits/devices in India alone. He hoped that wider use of rapid food testing kits and devices for food testing would be a game changer for India in 2020 and build greater public confidence in food available in the marketplace.

For media queries, contact:

Ruchika Sharma
Food Safety and Standards Authority of India
E: sharmaruchika.21@gmail.com

List 1: Approved Rapid Kits/Devices

Sr. No.	Test Kit Name	Manufacturer	Matrices
1	RAMAN –1:Edible Oils and fats	Oak Analytics India Pvt. Ltd.,	Edible Oils
2	Extenso Kit 075/Kit 275 :Veterinary drug and Antibiotics	Unisensor, Belgium	Milk
3	Bioeasy (M1) : Aflatoxin	Indifoss Analytical Pvt.Ltd	
4	Coliform Count Plates : Total coliform	3M India Ltd, Bengaluru	
5	Aerobic Count Plates : Aerobic Count		
6	Petrifilm Staph Express Count Plate + Disks) : Staphylococcus aureus		
7	Petrifilm™ EC Plate :		
7	Enterobacteriaceae Count		
8	Colilert& Colilert-18 : Total coliform	IDEXX LabPvt. Ltd,	Water& Alcoholic beverages
9	Pseudalert : Pseudomonas aeruginosa		
10	Alcolyzer ME: Alcoholic beverages	Anton Paar India Pvt. Ltd.,	
11	Compact Dry (Coliforms) : Coliforms	Nissui Pharma., Japan	Meat and Meat Products, Fish and Fish Products
12	Salmonella Velox : Salmonella	DNA Diagnostic, Denmark	
13	Petrifilm™ Aerobic Count Plates : Aerobic Count	3M India Ltd, Bengaluru	
14	E.coli/Coliform Count Plate :		
15	E.coli/Coliform Count		
15	Petrifilm Staph Express Count Plate + Disks : Staphylococcus aureus		
16	Reveal 2.0 : E. Coli	Neogen (India) Pvt. Ltd	Raw and finished food
17	Petrifilm Staph Express Count Plate + Disks : Yeast and Mold	3M India Ltd, Bengaluru	
18	PetrifilmY&M Count : Yeast and Mold		
19	Compact Dry (E. Coli) : E. Coli	Nissui Pharma., Japan	
20	Compact Dry (TPC) : Total Plate Count		
21	Compact Dry (BC) : Bacillus cereus		
22	Compact Dry (SA) : Staphylococcus aureus		
23	Compact Dry (Y&M) : Yeast and Mold		
25	Vitek 2 Compact : Pathogens	Biomerieux S.A, France	
26	Vidas (Tempo) : Pathogens		
27	Analytical Profile Index : Pathogens		
28	GeneUP : Virus &Pathogens		
29	Vidas : Pathogens		
30	Reveal Q+Max : Pathogens	Neogen (India) Pvt. Ltd	

List 2: Indigenously developed Rapid kits/devices

Sr. No.	Test Kit Name	Name of the Developer/ Institute	Matrices
1	Formaldehyde detection kit	ICAR-CIFT, Kochi(<i>Commercialized by- HiMedia Laboratories</i>) NIHFW, New Delhi	Fish & Fish Products
2	Ammonia detection kit		
3	17 α MT ELISA Kit : Hormones		
4	17 α , 20 β DIOHP ELISA Kit		
5	11-KT ELISA Kit:Hormones		
6	Argemone Oil Detection Kit	CSIR-IITR, Lucknow	Edible oils
7	Mustard Oil Check		
8	Iron Fortified salt	NIN Hyderabad HLL Lifecare Ltd (<i>Commercialized by-HLL Lifecare Ltd</i>)	Iron fortified salt Salts Iodized Salt
9	Iodized salt		
10	Salt Iodine Rapid Test		
11	Food animal species identification	ICAR-IVRI, Izatnagar	Meat and Meat Products
12	Carotenoid based assay to ascertain the cattle origin of tissues		
13	Natural dye based time temperature Indicators	DFRL, Mysuru	Frozen/ chilled mutton and chicken
14	Natural dye based Quality evaluation of frozen/ chilled mutton and chicken		
15	ELISA kit for Dexamethosone		
16	ELISA kit for MPA	NIHFW, New Delhi	Meat and Meat Products
17	ELISA kit for Prednisolone		
18	Kit for Detection of Adulteration in Milk- Small, Medium, Large,	NDDDB, Anand(<i>Commercialized by- Jupiter Glass Works</i>) Dayalbagh Educational Institute, Agra NDRI, Karnal(<i>Commercialized by- Delmos Research Pvt. Ltd</i>) NDRI, Karnal (<i>Commercialized by-Floreecer Services Ltd</i>)	Milk Adulteration (Detergent, Neutralizers, Urea, Hydrogen Peroxide, Glucose, Maltodextrin, Sucrose)
19	KEMAT -Milk		
20	goMATA -Milk		
21	Detection Kit of Adulteration in Milk		
22	Spore Based kit for detection of Antibiotic Residues		
23	Milk test (Strip based) Antibiotics	NIHFW, New Delhi	Milk
24	Milk test (Strip based) Pesticide		
25	Milk Progesterone ELISA/LFIA	NIFTEM, Kundli	Milk, baby milk
26	L-lactate sensing using nanomaterials		
27	Strip assay to check adulteration		
28	Total aflatoxins (B1, B2, G1, G2)	CSIR-IITR, Lucknow	Milk
29	Rapid Testing Kit for differentiation of pathogens		
30	Biokit for detection of Organophosphate and Organocarbamate Pesticides	NIIFTEM, Kundli IIT, Gandhinagar	Cereal, Pulses, Fruits, Vegetables and Beverages
		BARC, Mumbai	



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