Facilities available at PFTL

Laboratory is equipped with advanced equipments like GC-ECD, HPLC, UV Spectrophotmeter, Electro-Aantennogram (EAG), Olfactometer and wind tunnel.

Electroantennogram

Gaschromatography

HPLC

Cost of analysis of various categories of samples

Type of analysis	UAS Raichur Students	Other Students	Schemes/ Projects	Private Samples
GC-MS/MS and LC-MS/MS	3000.00	4500.00	7500.00	10000.00
GC-MS/MS	1500.00	3500.00	3500.00	5000.00
LC MS/MS	1500.00	3500.00	4000.00	5000.00
ICPMS	2100.00	3100.00	4000.00	7000.00
UHPLC/HPLC	750.00	1500.00	1500.00	1500.00
GC	750.00	1500.00	1500.00	1500.00

Cost of analysis of food quality

Methods of analysis	Type of analysis	Amount (in Rs.)
FSSAI Methods	Food quality characters	3000/-
Hot Air Oven	Moisture	165/-
Soxhlet Unit	Fat	715/-
Kjeldhal Unit	Protein	715/-
Fibre Estimation Unit	Fibre	880/-
Muffle Furnace	Ash	385/-
BIS Methods	Carbohydrate	1980/-
AOAC & BIS method	Proximate Composition	4000/-
ICPMS	Individual element / Heavy metals / Micro nutrient	700/-
UHPLC	Curcumin & Martanil yellow	750/-
UHPLC	Congo red & Metani yellow	750/-
UHPLC	Amino acids profile	2000/-
UHPLC	Water soluble Vitamins	2000/-

Cost of analysis of food microbial contamination

Food quality characters	Amount (in Rs.)
Microbial Load (Total plate count)	500.00
Microbial Load (Yeast and Mould)	500.00
Microbial Load (Specific Food borne pathogen	1000.00
Aflatoxin	2500.00

SCIENTISTS

Dr. Prabhuraj A.
Professor & Head (PRFQAL)

Dr. Udaykumar Nidoni
Professor & Head (PEF)

Dr. Nagaraj M. Naik
Assistant Professor of Agri. Microbiology

Dr. Saroja Nasarsing Rao
Assistant Professor of Biochemistry

Dr. S. G. Hanchinal
Assistant Professor of Entomology

Contact Address:
Pesticide Residue and Food Quality Analysis Laboratory, P.B. No. 329, Lingasugur Road, University of Agricultural Sciences, Raichur – 584101

Phone : 08532-297313
Email : head.prfqal@gmail.com, prfqlab@uasraichur.edu.in

Working days: Monday to Saturday
Working hours: 9:00 am to 5:00 pm (Monday to Friday)
9:00 am to 1:00 pm (Saturday)

UASR/PC/-PRFQAL-1/2022-23

University of Agricultural Sciences, Raichur

Pesticide Residue and Food Quality Analysis Laboratory Complex

(NABL Accredited as per ISO/17025:2017)

Introduction

Pesticide Residue and Food Quality Analysis Laboratory (PRFQAL) is a state-of-art NABL accredited laboratory dedicated for analysis of pesticide residues, heavy metals and food proximate in the agricultural produce and commodities. To cater the needs of various stake holders viz., farmers, scientists, students, food and processing industries, food grain packers and exporters, the laboratory was established during 2016, under Rashrtiya

Krishi Vikas Yojaya (RKVY) and Ministry of Food Processing and Industry (MOFPI), Government of India. It was further supported by KKRDB, DBT, VGST and other Ad-hoc projects.

The Laboratory started to function since 2016 and obtained National Accreditation Board for testing and Calibration Laboratories (NABL) accreditation as per ISO/IEC 17025:2005 for testing pesticide residues, heavy metals and food proximate analysis in agriculture/horticulture crops and their products during 2017. PRFQAL is also a part of the national programmes viz., All India Network Project (AINP) in Persistence and dissipation of Pesticide in different crop ecosystems, Monitoring of Pesticide Residues at National Level (MPRNL) sponsored by Government of India, Generation of baseline data for occurrence of heavy metals in vegetables funded by FSSAI.

Objectives of PRFQAL

- To standardize analytical methods for pesticide residue, heavy metals and aflatoxins in agriculture and horticulture crops and their commodities
- To analyze the nutrient and quality parameters in farm and processed products and drinking water
- To study persistence, dissipation and decontamination of selected pesticides in different agro ecosystems and food products
- To determine honey quality parameters as per FSSAI standards

Scope of analysis at PRFQAL

- Pesticides Residues
- Heavy Metals
- Food Proximate Composition
- Food Adulterants
- Environmental Gas Estimation
- Water Quality Analysis
- Honey quality Analysis

The laboratory has state-of-art facilities viz., LC-MS/MS, GC-MS FID, ICPMS, UHPLC, Ion Exchange chromatography etc for performing various analyses.


Sample Preparation Facility


LC-MS/MS


GC-MS/MS


ICPMS


LC-MS


Protein Estimation Unit


UHPLC


Food proximate analysis


Ion exchange Chromatography

The other laboratories coming under PRFQAL are Food Microbiology Laboratory and Pesticide Formulation Testing Laboratory

Food Microbiology Laboratory (FML)

The food safety is of major concern as food borne diseases are among the most serious public health concerns worldwide. Besides the public health impact, outbreaks of food-borne illness impose major economic losses to both the food industry and society. Hence, food microbial testing laboratory has been established in the University of Agricultural Sciences, Raichur.

Objectives of FML

- To ensure the food safety through microbiological testing
- To determine the quality of water through MPN technique
- To carryout and promote research on food borne pathogens
- To Overcome the scarcity of food microbial testing lab

Facilities available at FML

The laboratory is equipped with state-of art clean room facility with high end equipments like Bio-safety cabinet, media preparation unit, advanced enumerator etc.


Clean Room Facility


Media Preparation Room


Bio-safety cabinet


Incubation facility


Automated enumeration system


Rapid Pathogen Screening - Vidas

Pesticide Formulation Testing Laboratory (PFTL)

This laboratory plays an important role in monitoring the quality of the pesticides being sold in the market. It is also involved in isolation, characterization and bio-assay of pheromones for the management of lepidopteran pests.

Objectives of PFTL

- To provide the service for analysis of pesticide quality to the department of Agriculture.
- To provide the service for quality testing of pesticides to different manufacturing companies
- Isolation, characterization and evaluation of insect pheromones