



Agri-Products, Food & Water Testing

India's presence in the global market in terms of raw agricultural produce and processed products is growing. Globally, food needs have gone beyond merely supplying food to 'safe to eat'.

Food and water borne illnesses may result from the consumption of food /water contaminated by microbial pathogens, toxic chemicals or radioactive materials. Food allergy is another emerging problem. Consumers expect that domestic and imported foods meet the basic quality and safety standards and requirements related to food hygiene, nutritional labeling, certification, food additives, limits of pesticide residues, etc. Ensuring food safety requires due attention during harvesting, transport,

processing, storage and finally during food preparation and storage by consumers. Processed, frozen or ready to eat food is gaining popularity in recent years due to changing food habits, product diversification, busy lifestyle and mass production practices. Organic food production has received importance on account of consumer consciousness about health & environment. Thus it is important to promote the WHO slogan "From farm to plate, make food safe".

Accreditation & Certification



Testing Parameters for Food & Agri-Products

- **Physical analysis for Shriveled/ Shrunken, Broken, Insect/ Weevilled Damaged , Discolored, Foreign Matter, Admixtures, etc**
- **Physical analysis for weight & quality (onsite & laboratory)**
- **Organoleptic parameters**
- **Chemical Parameters**
 - . Crude Fiber
 - . Brix
 - . Refractive Index
 - . Ash
 - . Acid Insoluble Ash
 - . Sodium chloride content
 - . Moisture
 - . Bulk Density
 - . Total Soluble Solids
 - . Total Milk Solids
 - . Lactose
 - . Added Starch
 - . Insolubility Index
 - . Scorched Particles
 - . Titrable Acidity as lactic acid
 - . Aqueous Extracts
 - . Total Catechin content
 - . Caffeine Content
 - . Bromate Test
 - . Peroxidase Test
 - . Iron particles in tea
 - . Chloride content as NaCl in Salt
 - . Iodine content in Salt
 - . Color by ICUMSA
 - . Gum (base content)
 - . Detection of Urea
 - . Phosphorous
 - . Allergens
 - . Melamine
 - . Adulterants
 - . Nitrate in Meat & Meat Products
 - . Illegal Dyes (malachite Green, Sudan Dyes)
 - . Migration of Phthalates in food
 - . Others
- **Toxin Analysis**
 - . Analysis of Toxic Heavy metals at trace levels
 - . Methyl Mercury
 - . Analysis of Mycotoxins (Aflatoxin, Ochratoxin A)
 - . NOTS (Naturally Occurring Toxins)
 - . Others
- **Residue Testing**
 - . Analysis of pesticide residues (Insecticides, Herbicides, Fungicides, Rodenticides)
 - . Veterinary Drug Residues
 - . Analysis of PCBS
 - . Analysis of PAHS
 - . Others
- **Nutritional Analysis of Food**
 - . Protein
 - . Fat
 - . Carbohydrate
 - . Sugar
 - . Fiber
 - . Calories
 - . Calories from Fat
 - . Sodium
 - . Potassium
 - . Total Dietary Fibers
 - . Fatty Acid Profile
 - . Cholesterol
 - . Analysis of Vitamins & Minerals
 - . Amino Acid Profile
 - . Others
- **Analysis of Food Additives**
 - . Antioxidant (BHA, BHT, TBHQ, gallates, etc)
 - . Preservatives
 - . Sweeteners
 - . Food colors
 - . Others
- **SPECIFIC TEST**
- **Analysis of Spices and Condiments**
 - . Non volatile Ether Extract
 - . Volatile Oil
 - . Alcohol Soluble Extract
 - . Light & heavy Filth in Spices and Condiments
 - . Water soluble & insoluble Ash
 - . Curcumine Content in Turmeric
 - . Chromate test in Turmeric
 - . Capsaicin content
 - . Others
- **Analysis of Cereal & cereal Products**
 - . Physical Analysis
 - . Rodent Hair and Excreta other than Foreign Matter
 - . Uric Acid
 - . Gluten Content
 - . Alcoholic Acidity as H₂SO₄
 - . Others
- **Analysis of Marine/Aquaculture Products**
 - . Total Volatile Base Nitrogen
 - . Histamine
 - . Malachite Green
 - . Antibiotic Residues
 - . Others
- **Analysis of Honey**
 - . Fructose-Glucose Ratio
 - . Fiehe's Test
 - . Hydroxymethyl Furfural (HMF)
 - . Antibiotic Residues
 - . Others
- **Analysis of Oils & Fats**
 - . Free Fatty Acids
 - . Acid Value
 - . Iodine Value
 - . Peroxide Value
 - . Reichert-Meissel Value
 - . Specific Gravity
 - . Refractive Index
 - . Color by Lovibond

- Saponification Value
- Unsaponification Value
- Baudouin Test
- Flash Point
- Hexane
- Bellier Turbidity Test
- Cloud Point
- Oryzanol in Rice bran oil
- Polybromide test in mustard oil
- Pesticides & Mycotoxins
- Adulterants
- Others
- **Analysis of Oil (IS 548)**
- **Analysis of Oilseeds (IS 3579)**
- **Analysis of Salt (IS 7224)**
- **Analysis of Sugar (IS 15279)**
- **Skimmed Milk Powder Part 1 & 2 (IS 13334)**
- **Milk Powder (IS 1165)**
- **Shelf Life Studies**
 - Organoleptic Parameters
 - Microbial Parameters
 - Chemical Parameters
- **Microbiological Testing**
- **GMO (Genetically Modified Organisms) Analysis**

Products Tested

- Fruits & Vegetables
- Fruits & Vegetables Products
- Food Grains
- Oilseeds,
- Cereals & Cereal Products
- Spices and Condiments
- Tea & Coffee
- Fats, Oils & Fat Emulsions
- Dairy Products
- Bakery Products
- Pastas & Confectionaries
- Meat and Meat Products
- Fish & Fish Products
- Genetically Modified Foods
- Energy Drinks & Beverages
- Alcoholic Beverages
- Dietary & Nutritional Supplements
- Herbal Preparations
- Food Additives
- Food Colors
- Ready to Eat / Cooked Food
- Frozen Foods
- Canned Foods
- Honey
- Animal Feed
- Others

Quality services

- Product Shelf Life Studies
- Food Nutritional Labelling
- Food label reviews
- Personal Hygiene Monitoring
- Surface Swab Testing
- Hygiene Inspection
- Environmental Monitoring
- Product Development Studies
- Others



Testing Parameters For Water

- Physico-Chemical Analysis
- Organoleptic Testing like Color, Odor, Taste
- Metals & Toxic Heavy metals
- Turbidity
- Total dissolved solids
- Nitrate
- Fluoride
- Conductivity
- Chloride
- Sulphate
- Alkalinity
- Total hardness
- Residual Free Chlorine
- Phenolic Compounds
- Mineral Oil
- Anionic Surface Active Agents
- Sulphide
- Bromate
- Borates
- Ammonia
- Chloramines as Cl₂
- Trihalomethanes
- Pesticide Residues
- PAH'S
- PCB'S
- Microbiological Analysis
- COD
- BOD
- Others

Products Tested

- Drinking Water IS 10500
- Packaged Drinking Water IS 14543
- Natural Mineral Water IS 13428
- Water used for Processed Food Industry IS 4251
- Water for Swimming Pool IS 3328
- Reagent Grade Water IS 1070
- Water Purifier/RO Plant
- Bore well/Tanker Water
- Gardening water
- Cooling Tower & Chiller Water
- Industrial Water
- Dialysis Water
- Sewage/Effluent Water
- Water used in Construction
- Others

India exports large varieties of Agricultural products world over. To sustain the market enough care is necessary from field to packaging and transport so as to ensure that desired quality reaches the global customer. Testing plays a vital role to ensure that acceptable stringent quality standards are met worldwide. Testtex has necessary facilities to cater to all the requirements of exporters as well as importers which include sampling, inspection, consignment supervision, and others.



Independent Inspection & Testing Services For Agricultural Commodities

- Sampling & Analysis
- Cargo Condition Survey
- Warehousing cargo control supervision service
- Testing & Verification for Packing, Marking
- Grading & standardization- during process
- Supervision of cargo loading/unloading by rake/road
- Supervision of cargo loading/unloading on board the vessel
- Weight & Quality Certification
- Pre/Post Shipment Inspection , Testing
- Vessel's Hold/hatch/Tank cleanliness survey
- Vessel's Draft survey
- Container Inspection for cleanliness
- Supervision of Container Stuffing, Tally and Sealing
- Chemical & Microbial Quality analysis
- Residue Analysis
- Analysis of Toxins
- Analysis of Heavy Metals
- GMO Analysis
- Other quality parameters

Quality/Quantity Control Service for:

Cotton, Sugar, Skimmed Milk Powder, Guar Seed / Guar Gum, Cashew Nut, Cumin Seeds, Chillies (whole & Powder), Black Pepper, Fenugreek, Fennel Seeds, Coriander, Potato, Cloves, Turmeric, Psyllium Seeds, Iron Ore, Edible Oil, Soybean Seed, Mustard Seed, Cotton Seed, Castor Seed, Groundnut (pea nut), Sesame Seeds, Soybean Meal, Cotton Seed Cake, Groundnut Cake, Rice / Paddy, Wheat, Millet, Maize, Sorghum, Barley, Turdaal, Rajma, Urad, Moong, Dehydrated Onion, Garlic Powder & Flaks etc.



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Microbiological & Genetic Testing

'Microbiology' is a science that deals with organisms invisible to the naked eye. This makes testing all the more crucial and challenging. Microbiological Testing includes tests for bacteria, yeast, moulds, pathogens & others.

The quality and shelf life of any product depends on the nature and presence of microorganisms. Under favourable conditions, microorganisms grow resulting in a loss of product quality (spoilage). Microbiological monitoring and control is an essential part of Quality Assurance.

We at Testtex play a vital role in testing and certifying Agricultural commodities, Food, Beverages, Water, Cosmetics, Textile, Leather, Packaging Material, Environment, Medical Equipments, Child care Articles, etc.

Types of analysis as per National & International standards carried out in microbiological laboratory are:

- Onsite sampling and inspection of food & water
- Total Plate Count
- Yeast & Mould
- Coliform
- Microscopic Analysis for detection & enumeration of pathogens
- Sterility Test
- Hygiene Checks
- Environmental Monitoring
- Surface Swab Testing
- Others

Other Specific Tests

- Preservative challenge test
- Toxicity in terms of Algal inhibition test as per OECD 201 for chemicals dyes, auxiliaries (In vitro)
- Microbial limit test
- Evaluation of disinfectants
- Reidel walker coefficient
- Anti bacterial and antifungal activity check for textile & leather articles
- Sterility test for medical equipments

Detection of pathogens

- Salmonella
- Sulphite Reducing Anaerobes
- S.aureus
- Listeria
- E.coli
- Vibrio cholera
- Vibrio parahaemolyticus
- Pseudomonas
- Shigella
- Bacillus cereus
- Klebsiella
- Campylobacter
- Legionella
- Fecal streptococci
- Clostridium spp
- Bacillus cereus
- Enterobacteriaceae
- Thermophilic and mesophilic organisms
- Proteolytic and lipolytic organisms
- Psychrotrophic bacteria
- Others

Testing Undertaken as specified by

BIS, ISO, BAM, APHA, Others

We are an IOPEPC approved laboratory for the testing of Sesame Seeds for export to EU countries.

Genetic Testing

DNA based techniques are adopted for species confirmation, allergen identification in food products and GMO (genetically modified organisms detection).

At Testtex, GMO detection by RTPCR is the most sensitive and precise GMO test method, as it allows direct analysis of the DNA. We utilize national & international validated methods for detecting allergens, GMO & quantifying mutants in plant genomes with high accuracy and detection sensitivity.

Services

- Allergen testing by RTPCR (Real Time Polymerase Chain Reaction) Analysis
- GMO/NON GMO Certifications for Food & Agricultural Commodities
- "real-time" Qualitative and quantitative GMO Test methods
- Specific Plant DNA Detection at molecular level
- Definitive quantification with a broad range of sample types.
- Identification of species
- Others



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